

**Title 33
ENVIRONMENTAL QUALITY
Part XV. Radiation Protection**

Chapter 5. Radiation Safety Requirements for Industrial Radiographic Operations

§503. Definitions

A. As used in this Chapter, the following definitions apply:

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Radiographer Assistant—~~repealed, any individual who:~~

a. ~~has five years of documented experience as a radiographer who previously qualified under these regulations prior to January 1, 1995;~~

b. ~~has a documented record of safely performing industrial radiography; and~~

c. ~~has received confirmation from the department that such individual is acceptable to be a radiographer’s assistant.~~

Radiographer Trainee—any individual who has satisfied the following conditions: of LAC 33:XV.575.B.

a. ~~has been instructed for at least 40 hours in the subjects outlined in Appendix A.I—III of this Chapter;~~

b. ~~has successfully completed a company specific written examination and field test covering the applicable Louisiana radiation protection regulations (LAC 33:XV) and the company’s operating and emergency procedures;~~

c. ~~has completed and documented at least 40 hours of on the job training, in industrial radiography operations, as part of a three person crew composed of an instructor, a radiographer, and the radiographer trainee applicant; and~~

d. ~~has filed a completed Form DRC 20 with the department requesting radiographer trainee status and has received written confirmation from the department granting radiographer trainee status. Radiographer trainee status shall be granted only once for each individual and is valid for only 12 consecutive months. Radiography trainee status may be extended for an additional 12 consecutive months provided that the radiographer trainee has taken the industrial radiography radiation safety examination administered by the department or its agent during the first 12 months of granting radiographer trainee status.~~

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HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by the Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 20:653 (June 1994), LR 23:1138 (September 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2581 (November 2000), LR 26:2772 (December 2000), LR 27:1231 (August 2001), LR 29

Subchapter B. Personal Radiation Safety Requirements for Radiographers

§573. Conducting Industrial Radiographic Operations

A. Whenever radiography is performed at a location other than a permanent radiographic installation, the radiographer must be accompanied by at least one other qualified radiographer or, if the radiographer is a qualified instructor, a qualified radiographer trainee ~~or assistant~~, as required by Subsection D of this Section. The additional qualified individual shall observe the operations and be capable of providing immediate assistance to prevent unauthorized entry. Radiography may not be performed if only one qualified individual is present.

B. – C. ...

D. At temporary job sites each licensee or registrant shall provide, as a minimum, two-person crews. Such crews shall consist of at least two qualified radiographers; or an approved instructor directly supervising a qualified radiographer trainee; ~~or an approved instructor supervising a radiographer assistant.~~

E. – E.3. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 27:1234 (August 2001), amended LR 28:1951 (September 2002), LR 29

§575. Training and Testing

A. No licensee or registrant shall permit any individual to act as a radiographer, as defined in this Chapter, until such individual: completes the following requirements.

1. The individual shall be ~~has been~~ instructed by a licensed instructor for at least 40 hours in the subjects outlined in I, H, and III, Appendix A of this Chapter; ~~and has demonstrated understanding thereof pursuant to LAC 33:XV.575.A.6. Both the instructor and~~ The course of instruction must be approved by the department prior to the time of instruction; by submitting documentation of instructor licensure and course description.

a. The department must be notified by the licensee at least two weeks prior to presentation of the course.

b. The department must be notified of the cancellation of the course at least 24 hours prior to its scheduled time of presentation.

2. The individual shall ~~has completed~~ on-the-job training supervised by one or more radiographer instructors;

a. The instructor shall be authorized on the license or ~~certificate of registration certificate~~;

b. The on-the-job training shall include at least:

- i. 200 hours of active participation in radioactive materials industrial radiography operations for an individual to perform industrial radiography utilizing radioactive materials; and/or
- ii. 120 hours of active participation in x-ray industrial radiography operations for an individual to perform industrial radiography utilizing x-rays;

c. ~~The~~ hours of on-the-job training do not include safety meetings or classroom training or the use of a cabinet x-ray unit; ~~and~~

d. ~~The~~ current Form DRC-20, available from the department ~~or the departmental website, www.deq.state.la.us, or the equivalent,~~ must be submitted to the Office of Environmental Services, Permits Division documenting the on-the-job training.

3. ~~The individual shall~~ has received copies of and instruction in the regulations contained in this Chapter and the applicable sections of LAC 33:XV.Chapters 4 and 10, appropriate license(s), and the licensee's or registrant's operating and emergency procedures; ~~and has demonstrated understanding thereof pursuant to LAC 33:XV.575.A.5 and 6;~~

4. ~~The individual shall~~ has demonstrated competence in accordance with Paragraphs ~~pursuant to LAC 33:XV.575.A.5 and 6~~ of this Section to use the sources of radiation, radiographic exposure devices, related handling tools, and radiation survey instruments ~~which~~ that may be employed in his assignment;.

5. ~~The individual shall~~ has successfully completed a company-specific written examination and field test covering the subjects listed in Paragraphs ~~LAC 33:XV.575.A.3 and 4~~ of this Section; ~~and~~

6. ~~The individual shall~~ has successfully completed, within the last five years, a radiation safety examination administered by the department ~~or its agent,~~ another agreement state, the U.S. Nuclear Regulatory Commission, or the American Society of Non-Destructive Testing (ASNT). The examination must be successfully completed at least once every five years.

7. The individual shall have in his or her possession a valid radiographer I.D. card issued by the department, another agreement state, the U.S. Nuclear Regulatory Commission, or the American Society of Non-Destructive Testing (ASNT).

B. No licensee or registrant shall permit any individual to act as a radiographer trainee, as defined in this Chapter, until such individual completes the following requirements.

1. The requirements of Paragraph A.1 of this Section shall be met.

2. The individual shall complete on-the-job training supervised by one or more radiographer instructors.

a. The instructor shall be authorized on the license or registration certificate.

b. The on-the-job training, as part of a three-person crew composed of an instructor, a radiographer, and the radiographer trainee applicant, shall include at least:

i. 40 hours of active participation in radioactive materials industrial radiography operations for an individual to perform industrial radiography utilizing radioactive materials; and/or

ii. 40 hours of active participation in x-ray industrial radiography operations for an individual to perform industrial radiography utilizing x-rays.

c. The hours of on-the-job training do not include safety meetings or classroom training or the use of a cabinet x-ray unit.

3. The individual shall receive copies of and instruction in the regulations contained in this Chapter and the applicable sections of LAC 33:XV.Chapters 4 and 10, appropriate license, and the licensee's or registrant's operating and emergency procedures.

4. The individual shall demonstrate competence to use the sources of radiation, radiographic exposure devices, related handling tools, and radiation survey instruments that may be employed in his assignment.

5. The individual shall successfully complete a company-specific written examination and field test covering the subjects listed in Paragraphs B.3 and 4 of this Section.

6. The current Form DRC-20, available from the department or the departmental website, www.deq.state.la.us, must be submitted to the Office of Environmental Services, Permits Division documenting the on-the-job training, instruction in the subjects outlined in Appendix A in this Chapter, and successful completion of a company-specific written examination.

7. The individual shall have in his or her possession, a valid radiographer trainee I.D. card issued by the department or equivalent certification recognized by another agreement state or the U.S. Nuclear Regulatory Commission.

8. Each radiographer trainee I.D. card is valid for a five-year period, unless revoked or suspended in accordance with LAC 33:XV.579.

BC. Each licensee or registrant shall maintain, for inspection by the department, until disposition is authorized by the department, the following records for each radiographer and radiographer trainee:

1. Records of Ttraining and Certification. The records must include radiographer certification documents and verification of certification status, copies of written tests, dates and results of oral tests and field examinations, and the names of individuals conducting and receiving the oral and field examinations; ~~and~~

2. Records of Annual Refresher Ssafety Ttraining and ~~semiannual~~ Quarterly Inspections of Job Performance. The records must list the topics discussed during the refresher safety training, the dates the annual refresher safety training was conducted, and names of the instructors and attendees. For inspections of job performance, the records must also include a list showing the items checked and any noncompliance observed by the radiation safety officer or designee.

CD. Each licensee or registrant shall conduct a program of internal audits to ensure that the Radiation Protection Regulations (LAC 33:XV), Louisiana radioactive material license conditions, and the licensee's or registrant's operating and emergency procedures are followed by each radiographer and radiographer trainee. ~~These internal audits shall be performed at least quarterly, and each radiographer shall be audited at least quarterly.~~ Each radiographer and radiographer trainee shall be audited at quarterly intervals. Records of internal audits shall be maintained for review by the department for two consecutive years from the date of the audit.

DE. The licensee or registrant shall provide annual refresher safety training to all radiographers, ~~radiographer assistants,~~ and radiographer trainees at intervals not to exceed 12 months.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by the Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 20:653 (June 1994), LR 20:999 (September 1994), LR 23:1138 (September 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2583 (November 2000), LR 27:1235 (August 2001), LR 28:1951 (September 2002), LR 29

§577. Personnel Monitoring Control

A. No licensee or registrant shall permit an individual to act as a radiographer, instructor, ~~radiographer assistant~~, or radiographer trainee unless, at all times during radiographic operations, each such individual wears a direct-reading pocket dosimeter, an alarm ratemeter, and either a film badge, an optically-stimulated luminescence dosimeter (OSL), or a thermoluminescent dosimeter (TLD), except that for permanent radiography facilities where other appropriate alarming or warning devices are in routine use, the wearing of an alarming ratemeter is not required.

B. – H.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by the Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 20:653 (June 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2583 (November 2000), LR 27:1235 (August 2001), LR 28:1951 (September 2002), LR 29

§578. Reciprocity

A. – A.1. ...

2. the requirements and procedures for certification in the state of jurisdiction issuing the certification afford the same or comparable certification standards as those afforded by LAC 33:XV.575; ~~and~~

3. the applicant presents the certification to the Office of Environmental Services, Permits Division prior to entry into Louisiana; ~~and~~

4. no escalated enforcement action is pending with the Nuclear Regulatory Commission or in any other state.

B. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 20:1000 (September 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2583 (November 2000), LR 29

§579. Identification (I.D.) Cards for Radiographers or Radiographer Trainees

A. Issuance of I.D. Card

1. An I.D. card shall be issued to each person who successfully completes the requirements of LAC 33:XV.575.A or B.
2. ~~Each person's~~ A radiographer I.D. card shall contain ~~his/her~~ the radiographer's photograph. The department will take the photograph at the time the examination is administered. The radiographer trainee I.D. card does not require a photograph.
3. ~~The~~ An I.D. card remains the property of the state of Louisiana and may be revoked or suspended under the provisions of ~~LAC 33:XV.579~~ this Section.
 - A.4. – B. ...
 - C. Renewal of a Radiographer I.D. Card
 1. Applications for examination to renew an I.D. card shall be filed in accordance with LAC 33:XV.575.A.
 2. The examination for renewal of an I.D. card shall be administered in accordance with LAC 33:XV.575.
 3. A renewal I.D. card shall be issued in accordance with ~~LAC 33:XV.579~~ this Section.
 - D. Renewal of a Radiographer Trainee I.D. Card
 1. Applications for a renewal radiographer trainee I.D. card shall be filed in accordance with LAC 33:XV.575.B.
 2. A renewal I.D. card shall be issued in accordance with this Section.
 - ~~D~~E. Revocation or Suspension of an I.D. Card
 1. Any radiographer ~~or radiographer trainee~~ who violates these rules may be required to show cause at a formal hearing why ~~his/ or~~ her I.D. card should not be revoked or suspended in accordance with these ~~rules~~ regulations.
 2. When a department order has been issued for an industrial radiographer ~~or radiographer trainee~~ to cease and desist from the use of sources of radiation or the department revokes or suspends ~~his/ or~~ her I.D. card, the industrial radiographer ~~or radiographer trainee~~ shall surrender the I.D. card to the department until the order is changed or the suspension expires.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 20:1000 (September 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2584 (November 2000), LR 29

Subchapter C. Precautionary Procedures in Radiographic Operations

§590. Specific Requirements for Radiographic Personnel Performing Industrial Radiography

- A. – C. ...
- D. No individual other than a radiographer, ~~a radiographer assistant,~~ or a radiographer trainee who is under the personal supervision of a radiographer instructor shall manipulate controls or operate equipment used in industrial radiographic operations. The ~~radiographer's assistant or~~ radiographer trainee shall also be under the personal supervision of a radiographer instructor when using radiographic exposure devices,

associated equipment, or a sealed source or while conducting radiation surveys required by LAC 33:XV.587 to determine that the sealed source has returned to its shielded position or the radiation machine is off after an exposure. The personal supervision must include:

1. the radiographer's instructor's physical presence at the site where the sources of radiation are being used;
2. the availability of the radiographer instructor to give immediate assistance if required; and
3. the radiographer's instructor's direct observation of the ~~assistant's~~ ~~or~~ trainee's performance of the operations referred to in this Section.

E. ...

1. has met the requirements of LAC 33:XV.575.~~BA~~;

E.2. – F. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 20:653 (June 1994), amended LR 23:1139 (September 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2584 (November 2000), LR 27:1237 (August 2001), LR 28:1952 (September 2002), LR 29