

AMENDATORY SECTION (Amending WSR 91-02-049, filed 12/27/90, effective 1/31/91)

WAC 246-243-001 Purpose. The regulations in this chapter establish radiation safety requirements for persons utilizing sources of radiation for industrial radiography. The requirements of this ~~((part))~~ chapter are in addition to and not in substitution for ~~((the))~~ other requirements of these regulations.

AMENDATORY SECTION (Amending WSR 94-01-073, filed 12/9/93, effective 1/9/94)

WAC 246-243-010 Scope. The regulations in this chapter apply to all licensees who use sources of radiation for industrial radiography: Provided, however, that nothing in this ~~((part))~~ chapter shall apply to the use of sources of radiation in the healing arts.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-020 Definitions, abbreviations, and acronyms. ~~((As used in this part:))~~ The definitions, abbreviations, and acronyms in this section and in WAC 246-220-010 apply throughout this chapter, unless the context clearly indicates otherwise.

(1) **"Annual refresher safety training"** means a review conducted or provided by the licensee for its employees on radiation safety aspects of industrial radiography. The review may include, as appropriate, the results of internal inspections, new procedures or equipment, new or revised regulations, accidents or errors that have been observed, and should also provide opportunities for employees to ask safety questions.

(2) **"Associated equipment"** means equipment that is used in conjunction with a radiographic exposure device to make radiographic exposures ~~((that))~~ which drives, guides, or comes in contact with the source, ~~((e.g.,))~~ for example guide tube, control tube, control (drive) cable, removable source stop, "J" tube and collimator~~((+))~~ when it is used as an exposure head.

(3) **"Certifying entity"** means an independent certifying organization meeting the requirements in WAC 246-243-250 Appendix C or an agreement state meeting the requirements in WAC 246-243-250 Appendix C, subsections (2) and (3).

(4) **"Collimator"** means a radiation shield that is placed on the end of the guide tube or directly onto a radiographic exposure device to restrict the size of the radiation beam when the sealed source is cranked into position to make a radiographic exposure.

(5) **"Control (drive) cable"** means the cable that is connected to the source assembly and used to drive the source to and from the exposure location.

(6) **"Control drive mechanism"** means a device that enables the source assembly to be moved to and from the exposure device.

(7) **"Control tube"** means a protective sheath for guiding the control cable. The control tube connects the control drive mechanism to the radiographic exposure device.

(8) **"Exposure head"** means a device that locates the gamma radiography sealed source in the selected working position. (An exposure head is also known as a source stop.)

(9) **"Field station"** means a facility where licensed material may be stored or used and from which equipment is dispatched.

(10) **"Guide tube (projection sheath)"** means a flexible or rigid tube (~~((i.e., "J" tube))~~) for guiding the source assembly and the attached control cable from the exposure device to the exposure head. The guide tube may also include the connections necessary for attachment to the exposure device and to the exposure head.

(11) **"Hands-on experience"** means experience in all of those areas considered to be directly involved in the radiography process.

(12) **"Independent certifying organization"** means an independent organization that meets all of the criteria of WAC 246-243-250 Appendix C.

(13) **"Industrial radiography"** (~~((radiography))~~) means the examination of the macroscopic structure of materials by nondestructive methods utilizing sources of radiation to make radiographic images. Industrial radiography as used in this chapter does not include well logging operations.

(14) **"Lay-barge radiography"** means industrial radiography performed on any water vessel used for laying pipe.

(15) **"Offshore platform radiography"** means industrial radiography conducted from a platform over a body of water.

(16) **"Permanent radiographic installation"** means an enclosed shielded room, cell or vault, not located at a temporary job site, in which radiography is performed, regardless of ownership.

(17) **"Practical examination"** means a demonstration through practical application of the safety rules and principles in industrial radiography including use of all appropriate equipment and procedures.

(18) **"Radiation safety officer for industrial radiography"** means an individual with the responsibility for the overall radiation safety program on behalf of the licensee and who meets the requirements of WAC 246-243-047.

(19) **"Radiographer"** means any individual who performs or who, in attendance at the site where sources of radiation are being used, personally supervises industrial radiographic operations and who is responsible to the licensee for assuring compliance with the requirements of these regulations and all license conditions.

(20) **"Radiographer certification"** means written approval received from a certifying entity stating that an individual has satisfactorily met certain established radiation safety, testing, and experience criteria.

(21) **"Radiographer's assistant"** means any individual who, under the personal supervision of a radiographer, uses sources of radiation, related handling tools, or radiation survey instruments in industrial radiography.

(22) **"Radiographic exposure device"** means any instrument containing a sealed source fastened or contained therein, in which the sealed source or shielding thereof may be moved, or otherwise changed, from a shielded to unshielded position for purposes of making a radiographic exposure.

(23) **"Radiographic operations"** means all activities associated with the presence of radioactive sources in a radiographic exposure

device during use of the device or transport (except when being transported by a common or contract carrier), to include surveys to confirm the adequacy of boundaries, setting up equipment and any activity inside restricted area boundaries.

(24) **"S-tube"** means a tube through which the radioactive source travels when inside a radiographic exposure device.

(25) **"Shielded position"** means the location within the radiographic exposure device or source changer where the sealed source is secured and restricted from movement.

(26) **"Source assembly"** means an assembly that consists of the sealed source and a connector that attaches the source to the control cable. The source assembly may also include a stop ball used to secure the source in the shielded position.

(27) **"Source changer"** means a device designed and used for replacement of sealed sources in radiographic exposure devices, including those also used for transporting and storage of sealed sources.

(28) **"Storage area"** means any location, facility, or vehicle which is used to store or to secure a radiographic exposure device, a storage container, or a sealed source when it is not in use and which is locked or has a physical barrier to prevent accidental exposure, tampering with, or unauthorized removal of the device, container, or source.

(29) **"Storage container"** means a container in which sealed sources are secured and stored.

(30) **"Temporary job site"** means a location where radiographic operations are conducted and where licensed material may be stored other than those ~~((location(s)))~~ locations of use authorized on the license.

(31) **"Underwater radiography"** means industrial radiography performed when the radiographic exposure device ~~((and/))~~ or related equipment are beneath the surface of the water.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-030 Conducting industrial radiography operations.

(1) 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 an individual who has at a minimum met the requirements of WAC 246-243-130(2) (radiographer's assistant). 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.

(2) All radiographic operations conducted at locations of use authorized on the license must be conducted in a permanent radiographic installation, unless specifically authorized by the department.

(3) Offshore platform, lay-barge, ~~((and/))~~ or underwater radiography shall be performed only by licensees whose license specifically authorizes such activity. Such operations fall under the jurisdiction of the United States Nuclear Regulatory Commission when conducted outside of the territorial waters of the state of Washington.

~~((4) Licensees will have until January 1, 2001, to meet the requirement for having two qualified individuals present at locations~~

~~other than a permanent radiographic installation as specified in subsection (1) of this section.)~~

AMENDATORY SECTION (Amending WSR 99-05-012, filed 2/5/99, effective 3/8/99)

WAC 246-243-040 Equipment performance requirements. Equipment used in industrial radiography operations must meet the following minimum criteria:

(1)(a) Each radiographic exposure device, source assembly or sealed source, and all associated equipment must meet the requirements specified in American National Standards Institute, N432-1980 "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography," (published as NBS Handbook 136, issued January 1981). This publication may be purchased from American National Standards Institute, Inc., 25 West 43rd Street, New York, New York, 10036; telephone: 212-642-4900. Copies of the document are available for inspection at the Department of Health, ((Division)) Office of Radiation Protection, Olympia, Washington. A copy of the document is also on file at the National Archives and Records Administration. For information on the availability of this material at the National Archives and Records Administration call 202-741-6030, or go to: http://www.archives.gov/federal/register/code_of_federal_regulations/ibr_locations.html.

(b) Engineering analysis may be submitted by an applicant or licensee to demonstrate the applicability of previously performed testing on similar individual radiography equipment components. Upon review, the department may find this an acceptable alternative to actual testing of the component pursuant to the above referenced standard.

(c) Notwithstanding (a) of this subsection, equipment used in industrial radiographic operations need not comply with § 8.9.2(c) of the Endurance Test in American National Standards Institute N432-1980, if the prototype equipment has been tested using a torque value representative of the torque that an individual using the radiography equipment can realistically exert on the lever or crankshaft of the drive mechanism.

(2) In addition to the requirements specified in subsection (1) of this section, the following requirements apply to radiographic exposure devices, source changers, source assemblies and sealed sources.

(a) The licensee shall ensure that each radiographic exposure device has attached to it a durable, legible, clearly visible label bearing the:

(i) Chemical symbol and mass number of the radionuclide in the device;

(ii) Activity and the date on which this activity was last measured;

(iii) Model (or product code) and serial number of the sealed source;

(iv) Manufacturer's identity of the sealed source; and

(v) Licensee's name, address, and telephone number.

(b) Radiographic exposure devices intended for use as Type B transport containers must meet the applicable requirements of 10 C.F.R. Part 71.

(c) Modification of radiographic exposure devices, source changers, and source assemblies and associated equipment is prohibited, unless the design of any replacement component, including source holder, source assembly, controls or guide tubes would not compromise the design safety features of the system.

(3) In addition to the requirements specified in subsections (1) and (2) of this section, the following requirements apply to radiographic exposure devices, source assemblies, and associated equipment that allow the source to be moved out of the device for radiographic operations or to source changers.

(a) The coupling between the source assembly and the control cable must be designed in such a manner that the source assembly will not become disconnected if cranked outside the guide tube. The coupling must be such that it (~~can not~~) cannot be unintentionally disconnected under normal and reasonably foreseeable abnormal conditions.

(b) The device must automatically secure the source assembly when it is cranked back into the fully shielded position within the device. The securing system may only be released by means of a deliberate operation on the exposure device.

(c) The outlet fittings, lock box, and drive cable fitting on each radiographic exposure device must be equipped with safety plugs or covers which must be installed during storage and transportation to protect the source assembly from water, mud, sand, or other foreign matter.

(d)(i) Each sealed source or source assembly must have attached to it or engraved on it, a durable, legible, visible label with the words: "DANGER—RADIOACTIVE."

(ii) The label may not interfere with the safe operation of the exposure device or associated equipment.

(e) The guide tube must be able to withstand a crushing test that closely approximates the crushing forces that are likely to be encountered during use, and be able to withstand a kinking resistance test that closely approximates the kinking forces likely to be encountered during use.

(f) Guide tubes must be used when moving the source out of the device.

(g) An exposure head or similar device designed to prevent the source assembly from passing out of the end of the guide tube must be attached to the outermost end of the guide tube during radiographic operations.

(h) The guide tube exposure head connection must be able to withstand the tensile test for control units specified in ANSI N432-1980.

(i) Source changers must provide a system for ensuring that the source will not be accidentally withdrawn from the changer when connecting or disconnecting the drive cable to or from a source assembly.

(4) All radiographic exposure devices and associated equipment in use after January 1, 1998, must comply with the requirements of this section.

(5) The maximum exposure rate limits for storage containers and source changers with the sealed source in the shielded position are:

(a) 2 millisieverts (200 millirem) per hour at any exterior surface; and

(b) 0.1 millisieverts (10 millirem) per hour at one meter from any exterior surface.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-042 Labeling, storage, and transportation. (1) The licensee may not use a source changer or a container to store licensed material unless the source changer or the storage container has securely attached to it a durable, legible, and clearly visible label bearing the standard trefoil radiation caution symbol in conventional colors, (~~i.e.~~) that is, magenta, purple or black on a yellow background, having a minimum diameter of 25 mm, and the wording:

CAUTION (or "DANGER")
RADIOACTIVE MATERIAL
NOTIFY CIVIL AUTHORITIES IF FOUND
(or "NAME OF COMPANY")

(2) The licensee may not transport licensed material unless the material is packaged, and the package is labeled, marked, and accompanied with appropriate shipping papers in accordance with regulations set out in 10 C.F.R. Part 71.

(3) Locked radiographic exposure devices and storage containers must be physically secured to prevent tampering or removal by unauthorized personnel. The licensee shall store licensed material in a manner which will minimize danger from explosion or fire.

(4) The licensee shall lock and physically secure the transport package containing licensed material in the transporting vehicle to prevent accidental loss, tampering, or unauthorized removal of the licensed material from the vehicle.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-044 Records of receipt and transfer of sealed sources. (1) Each licensee shall maintain records showing the receipts and transfers of sealed sources and of devices using depleted uranium (DU) for shielding and retain each record for three years after it is made.

(2) These records must include the date, shipper or destination, the name of the individual making the record, radionuclide, number of becquerels (curies) or mass (for DU), and manufacturer, model, and serial number of each sealed source (~~and~~) or device, as appropriate.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-047 Radiation safety officer for industrial radiography. The radiation safety officer (RSO) 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 program.

(1) The minimum qualifications, training, and experience for RSOs for industrial radiography are as follows:

(a) Completion of the training and testing requirements of WAC 246-243-130(1);

(b) Two thousand hours of hands-on experience as a qualified radiographer in industrial radiographic operations utilizing sealed radioactive material; and

(c) Formal training in the establishment and maintenance of a radiation protection program.

(2) The department will consider alternatives when the RSO has appropriate training (~~and~~) or experience in the field of ionizing radiation, and in addition, has adequate formal training with respect to the establishment and maintenance of a radiation safety protection program.

(3) The specific duties and authorities of the RSO include, but are not limited to:

(a) Establishing and overseeing all operating, emergency, and ALARA procedures as required by chapter 246-221 WAC, and reviewing them regularly to ensure that the procedures in use conform to current chapter 246-221 WAC requirements, conform to other department regulations and to the license conditions;

(b) Overseeing and approving all phases of the training program for radiographic personnel, ensuring that appropriate and effective radiation protection practices are taught;

(c) Ensuring that required radiation surveys and leak tests are performed and documented in accordance with the regulations, including any corrective measures when levels of radiation exceed established limits;

(d) Ensuring that personnel monitoring devices are calibrated and used properly by occupationally exposed personnel, that records are kept of the monitoring results, and that timely notifications are made as required by WAC 246-221-260; and

(e) Ensuring that operations are conducted safely and to assume control for instituting corrective actions including stopping of operations when necessary.

(4) The licensee will have until January 1, 2001, to meet the requirements of subsection (1) or (2) of this section.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-100 Quarterly inventory. Each licensee shall conduct a quarterly physical inventory to account for all sealed sources and for devices containing depleted uranium (DU) received or possessed. The records of the inventories shall be maintained for three years from the date of inventory for inspection by the department and shall include:

(1) Exposure device or source changer make, model, and serial number;

(2) Sealed source serial number and manufacturer;

(3) Radionuclide and current activity in becquerels (curies) or mass (for DU) in each device;

(4) Location of sealed source (~~and~~) or device/changer;

(5) Date of inventory;

(6) Name of person who performed inventory.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-120 Inspection and maintenance of radiographic exposure devices, transport and storage containers, associated equipment, source changers, and survey instruments. (1) The licensee shall perform visual and operability checks on survey meters, radiographic exposure devices, transport and storage containers, associated equipment and source changers before use on each day the equipment is to be used to ensure that the equipment is in good working condition, that the sources are adequately shielded, and that required labeling is present. Survey instrument operability must be performed using check sources or other appropriate means. If equipment problems are found, the equipment must be removed from service until repaired.

(2) Each licensee shall have written procedures for:

(a) Inspection and routine maintenance of radiographic exposure devices, source changers, associated equipment, transport and storage containers, and survey instruments at intervals not to exceed three months or before the first use thereafter to ensure the proper functioning of components important to safety. Replacement components shall meet design specifications. If equipment problems are found, the equipment must be removed from service until repaired.

(b) Inspection and maintenance necessary to maintain the Type B packaging used to transport radioactive materials. The inspection and maintenance program must include procedures to assure that Type B packages are shipped and maintained in accordance with the certificate of compliance or other approval.

(3) Any maintenance performed on radiographic exposure devices and accessories shall be in accordance with the manufacturer's specifications.

(4) Records of daily checks and quarterly inspections including any equipment problems identified and of any maintenance performed under subsections (1) and (2) of this section shall be made and retained for three years. The record shall include:

(a) The date of check or inspection;

(b) Name of inspector;

(c) Equipment involved;

(d) Any problems found; and

(e) What repair (~~and~~) or maintenance, if any, was done.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-130 Limitations—Personal radiation safety requirements for radiographers and radiographers' assistants. (1) No licensee shall permit any individual to act as a radiographer as defined in this chapter until such individual:

(a) Has been instructed in the subjects outlined in WAC 246-243-230, in addition to a minimum of two months of on-the-job training, and is certified through a radiographer certification program by a certifying entity in accordance with the criteria specified in WAC 246-243-250, Appendix C or equivalent regulations of the United States Nuclear Regulatory Commission or an agreement state. The department maintains a list of recognized certifying entities for reference. The licensee may, until January 1, 2001, allow an individual who has not met the requirement of this subsection, to act as a radiographer after the individual has received training in the subjects outlined in WAC 246-243-230 and demonstrated an understanding of these subjects by successful completion of a written examination that was previously submitted to and approved by the department;

(b) Has received copies of and instruction in the regulations contained in chapters 246-220, 246-221, 246-222, 246-231, and 246-243 WAC, in the United States Department of Transportation regulations as referenced in chapter 246-231 WAC, and the applicable sections of appropriate ((license(s))) license, and the licensee's operating and emergency procedures, and shall have demonstrated understanding thereof by successful completion of a written or oral examination covering this material;

(c) Has received training in the use of the licensee's radiographic exposure devices, sealed sources, in the daily inspection of devices and associated equipment, and in the use of radiation survey instruments; and

(d) Has demonstrated understanding of the use of radiographic exposure devices, sources, survey instruments and associated equipment described in subsection (1)(c) of this section by successful completion of a practical examination on the subjects covered.

(2) No licensee shall permit any individual to act as a radiographer's assistant as defined in this chapter until such individual:

(a) Has received copies of and instruction in the regulations contained in chapters 246-220, 246-221, 246-222, 246-231, and 246-243 WAC, in the United States Department of Transportation regulations as referenced in chapter 246-231 WAC, and the applicable sections of appropriate ((license(s))) license, and the licensee's operating and emergency procedures;

(b) Has developed competence to use under the personal supervision of the radiographer the radiographic exposure devices, sealed sources, associated equipment, and radiation survey instruments which will be employed in the individual's assignment; and

(c) Has demonstrated understanding of the instructions provided under (a) of this subsection by successfully completing a written test on the subjects covered and has demonstrated competence in the use of the hardware described in (b) of this subsection by successful completion of a practical examination on the use of such hardware.

(3) Each licensee shall maintain, for inspection by the department, records of training and certification which demonstrate that the requirements of subsections (1) and (2) of this section are met. These records shall be maintained for three years after the record is made. The record shall include:

(a) Radiographer certification documents and verification of certification status;

(b) Copies of written tests;

(c) Dates of oral and practical examinations; and

(d) Names of individuals conducting and receiving the oral and practical examinations.

(4) Licensees will have until January 1, 2001, to comply with the certification requirements specified in subsection (1)(a) of this section, and the additional training requirements specified in subsections (1)(b) and (2)(a) of this section.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-200 Records required at temporary job sites. Each licensee conducting radiographic operations at a temporary site shall have copies of the following documents and records available at that site for inspection by the department:

- (1) Appropriate license;
- (2) Operating and emergency procedures;
- (3) Applicable regulations;
- (4) Survey records required pursuant to WAC 246-243-190 for the period of operation at the site;
- (5) Direct reading dosimeter records for the period of operation at the site;
- (6) The latest radiation survey instrument calibration record and leak test record for specific devices in use at the site;
- (7) The latest calibration record for alarm rate meters and operability checks of pocket dosimeters (~~(and/)~~) or electronic personal dosimeters as required by WAC 246-243-150;
- (8) Utilization records for each radiographic exposure device dispatched from that location as required by WAC 246-243-110;
- (9) Records of equipment problems identified in daily checks of equipment as required by WAC 246-243-120;
- (10) Records of alarm system and entrance control checks required by WAC 246-243-220, if applicable;
- (11) The shipping papers for the transportation of radioactive materials; and
- (12) When operating under reciprocity pursuant to WAC 246-232-040, a copy of the NRC or agreement state license authorizing the use of radioactive material.

AMENDATORY SECTION (Amending WSR 94-01-073, filed 12/9/93, effective 1/9/94)

WAC 246-243-205 Temporary job site notification. (1) Each licensee shall provide notification to the department as required by the department, preferably twenty-four hours but no later than two hours, prior to beginning radiographic operations at a temporary job site. The notification will be given by using the prescribed 1-800 telephone notification system. The notification shall include:

- (a) Name and office telephone number of the licensee;
- (b) Radioactive materials license number;
- (c) Address or directions to the temporary job site;
- (d) Specific (~~(date(s), time(s))~~) dates, times, and duration of expected radiographic operations;

(e) Names of radiographers and, if applicable, radiographer assistants taking part in the radiographic operations; and

(f) Name and telephone number of a contact person at the temporary job site.

(2) In the event that operations at a temporary job site continue for longer than thirty days, the licensee will ~~((renotify))~~ again notify the department, as required by subsection (1) of this section, each succeeding month.

AMENDATORY SECTION (Amending WSR 94-01-073, filed 12/9/93, effective 1/9/94)

WAC 246-243-240 Appendix B—General guidelines for inspection of radiography equipment.

(1) Panoramic devices (devices in which the source is physically removed from shielded container during exposure) should be inspected for:

- (a) Radiographic exposure unit;
- (i) Abnormal surface radiation levels anywhere on camera;
- (ii) Condition of safety plugs;
- (iii) Proper operation of locking mechanism;
- (iv) Condition of pigtail connector;
- (v) Alignment of "S" tube with exit port;
- (vi) Condition of carrying device (for example, straps~~((, handle, etc.))~~ and handles);
- (vii) Proper labeling;

(b) Source tube;

- (i) Rust, corrosion, dirt, or sludge buildup inside the source tube;

- (ii) Condition of source tube connector;
 - (iii) Condition of source stop;
 - (iv) Kinks or damage that could prevent proper operation;
- (c) Control cables and drive mechanism;
- (i) Proper drive mechanism for this camera, if appropriate;
 - (ii) Changes in general operating characteristics;
 - (iii) Condition of connector on drive cable;
 - (iv) Drive cable flexibility, wear, and rust;
 - (v) Excessive wear or damage to crank assembly parts;
 - (vi) Damage to drive cable conduit that could prevent the cable from moving freely;

(vii) Connection of the control cable connector with the pigtail connector for proper mating;

(viii) Proper operation of source position indicator, if applicable.

(2) Directional beam devices should be inspected for:

- (a) Abnormal surface radiation;
- (b) Changes in the general operating characteristics of the unit;
- (c) Proper operation of shutter mechanism;
- (d) Chafing or binding of shutter mechanism;
- (e) Damage to the device which might impair its operation;
- (f) Proper operation of locking mechanism;
- (g) Proper drive mechanism with this camera, if appropriate;
- (h) Condition of carrying device (~~((strap, handle, etc.))~~ for example, straps and handles);

- (i) Proper labeling.

AMENDATORY SECTION (Amending WSR 00-08-013, filed 3/24/00, effective 4/24/00)

WAC 246-243-250 Appendix C—Radiographer certification. (1) Requirements for an independent certifying organization. An independent certifying organization shall:

- (a) Be an organization such as a society or association, whose members participate in, or have an interest in, the fields of industrial radiography;

- (b) Make its membership available to the general public nationwide that is not restricted because of race, color, religion, sex, age, national origin or disability;

- (c) Have a certification program open to nonmembers, as well as members;

- (d) Be an incorporated, nationally recognized organization that is involved in setting national standards of practice within its fields of expertise;

- (e) Have an adequate staff, a viable system for financing its operations, and a policy- and decision-making review board;

- (f) Have a set of written organizational by-laws and policies that provide adequate assurance of lack of conflict of interest and a system for monitoring and enforcing those by-laws and policies;

- (g) Have a committee, whose members can carry out their responsibilities impartially, to review and approve the certification guidelines and procedures, and to advise the organization's staff in implementing the certification program.

- (h) Have a committee, whose members can carry out their responsibilities impartially, to review complaints against certified individuals and to determine appropriate sanctions;

- (i) Have written procedures describing all aspects of its certification program, maintain records of the current status of each individual's certification and the administration of its certification program;

- (j) Have procedures to ensure that certified individuals are provided due process with respect to the administration of its certification program, including the process of becoming certified and any sanctions imposed against certified individuals;

- (k) Have procedures for proctoring examinations, including qualifications for proctors. These procedures must ensure that the individuals proctoring each examination are not employed by the same company or corporation (or a wholly owned subsidiary of such company or corporation) as any of the examinees;

- (l) Exchange information about certified individuals with the department, the US Nuclear Regulatory Commission, other independent certifying organizations (~~and~~) or agreement states and allow periodic review of its certification program and related records; and

- (m) Provide a description to the department of its procedures for choosing examination sites and for providing an appropriate examination environment.

(2) Requirements for certification programs. All certification programs must:

(a) Require applicants for certification to:

(i) Receive training in the topics set forth in WAC 246-243-230 or equivalent NRC or agreement state regulations; and

(ii) Satisfactorily complete a written examination covering these topics;

(b) Require applicants for certification to provide documentation that demonstrates that the applicant has:

(i) Received training in the topics set forth in WAC 246-243-230 or equivalent NRC or agreement state regulations;

(ii) Satisfactorily completed a minimum period of on-the-job training; and

(iii) Received verification by an agreement state or a NRC licensee that the applicant has demonstrated the capability of independently working as a radiographer;

(c) Include procedures to ensure that all examination questions are protected from disclosure;

(d) Include procedures for denying an application, revoking, suspending, and reinstating a certificate;

(e) Provide a certification period of not less than three years nor more than five years;

(f) Include procedures for renewing certifications and, if the procedures allow renewals without examination, require evidence of recent full-time employment and annual refresher training;

(g) Provide a timely response to inquiries, by telephone or letter, from members of the public, about an individual's certification status.

(3) Requirements for written examinations.

All examinations must be:

(a) Designed to test an individual's knowledge and understanding of the topics listed in WAC 246-243-230 or equivalent NRC or agreement state requirements;

(b) Written in a multiple-choice format;

(c) Have test items drawn from a question bank containing psychometrically valid questions based on the material in WAC 246-243-230.