

Nuclear Regulatory Commission

§ 39.53

this chapter or with an Agreement State.

[65 FR 20345, Apr. 17, 2000]

§ 39.43 Inspection, maintenance, and opening of a source or source holder.

(a) Each licensee shall visually check source holders, logging tools, and source handling tools, for defects before each use to ensure that the equipment is in good working condition and that required labeling is present. If defects are found, the equipment must be removed from service until repaired, and a record must be made listing: the date of check, name of inspector, equipment involved, defects found, and repairs made. These records must be retained for 3 years after the defect is found.

(b) Each licensee shall have a program for semiannual visual inspection and routine maintenance of source holders, logging tools, injection tools, source handling tools, storage containers, transport containers, and uranium sinker bars to ensure that the required labeling is legible and that no physical damage is visible. If defects are found, the equipment must be removed from service until repaired, and a record must be made listing: date, equipment involved, inspection and maintenance operations performed, any defects found, and any actions taken to correct the defects. These records must be retained for 3 years after the defect is found.

(c) Removal of a sealed source from a source holder or logging tool, and maintenance on sealed sources or holders in which sealed sources are contained may not be performed by the licensee unless a written procedure developed pursuant to § 39.63 has been approved either by the Commission pursuant to § 39.13(c) or by an Agreement State.

(d) If a sealed source is stuck in the source holder, the licensee may not perform any operation, such as drilling, cutting, or chiseling, on the source holder unless the licensee is specifically approved by the Commission or an Agreement State to perform this operation.

(e) The opening, repair, or modification of any sealed source must be per-

formed by persons specifically approved to do so by the Commission or an Agreement State.

§ 39.45 Subsurface tracer studies.

(a) The licensee shall require all personnel handling radioactive tracer material to use protective gloves and, if required by the license, other protective clothing and equipment. The licensee shall take precautions to avoid ingestion or inhalation of radioactive tracer material and to avoid contamination of field stations and temporary jobsites.

(b) A licensee may not knowingly inject licensed material into fresh water aquifers unless specifically authorized to do so by the Commission.

§ 39.47 Radioactive markers.

The licensee may use radioactive markers in wells only if the individual markers contain quantities of licensed material not exceeding the quantities specified in § 30.71 of this chapter. The use of markers is subject only to the requirements of § 39.37.

§ 39.49 Uranium sinker bars.

The licensee may use a uranium sinker bar in well logging applications only if it is legibly impressed with the words "CAUTION—RADIOACTIVE-DEPLETED URANIUM" and "NOTIFY CIVIL AUTHORITIES (or COMPANY NAME) IF FOUND."

[65 FR 20345, Apr. 17, 2000]

§ 39.51 Use of a sealed source in a well without a surface casing.

The licensee may use a sealed source in a well without a surface casing for protecting fresh water aquifers only if the licensee follows a procedure for reducing the probability of the source becoming lodged in the well. The procedure must be approved by the Commission pursuant to § 39.13(c) or by an Agreement State.

§ 39.53 Energy compensation source.

The licensee may use an energy compensation source (ECS) which is contained within a logging tool, or other tool components, only if the ECS contains quantities of licensed material

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not exceeding 3.7 MBq [100 micro-curies].

(a) For well logging applications with a surface casing for protecting fresh water aquifers, use of the ECS is only subject to the requirements of §§ 39.35, 39.37 and 39.39.

(b) For well logging applications without a surface casing for protecting fresh water aquifers, use of the ECS is only subject to the requirements of §§ 39.15, 39.35, 39.37, 39.39, 39.51, and 39.77.

[65 FR 20345, Apr. 17, 2000]

§ 39.55 Tritium neutron generator target sources.

(a) Use of a tritium neutron generator target source, containing quantities not exceeding 1,110 GBq [30 curies] and in a well with a surface casing to protect fresh water aquifers, is subject to the requirements of this part except §§ 39.15, 39.41, and 39.77.

(b) Use of a tritium neutron generator target source, containing quantities exceeding 1,110 GBq [30 curies] or in a well without a surface casing to protect fresh water aquifers, is subject to the requirements of this part except § 39.41.

[68 FR 75390, Dec. 31, 2003]

Subpart D—Radiation Safety Requirements

§ 39.61 Training.

(a) The licensee may not permit an individual to act as a logging supervisor until that person—

(1) Has completed training in the subjects outlined in paragraph (e) of this section;

(2) Has received copies of, and instruction in—

(i) The NRC regulations contained in the applicable sections of parts 19, 20, and 39 of this chapter;

(ii) The NRC license under which the logging supervisor will perform well logging; and

(iii) The licensee's operating and emergency procedures required by § 39.63;

(3) Has completed on-the-job training and demonstrated competence in the use of licensed materials, remote handling tools, and radiation survey instruments by a field evaluation; and

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(4) Has demonstrated understanding of the requirements in paragraphs (a) (1) and (2) of this section by successfully completing a written test.

(b) The licensee may not permit an individual to act as a logging assistant until that person—

(1) Has received instruction in applicable sections of parts 19 and 20 of this chapter;

(2) Has received copies of, and instruction in, the licensee's operating and emergency procedures required by § 39.63;

(3) Has demonstrated understanding of the materials listed in paragraphs (b) (1) and (2) of this section by successfully completing a written or oral test; and

(4) Has received instruction in the use of licensed materials, remote handling tools, and radiation survey instruments, as appropriate for the logging assistant's intended job responsibilities.

(c) The licensee shall provide safety reviews for logging supervisors and logging assistants at least once during each calendar year.

(d) The licensee shall maintain a record on each logging supervisor's and logging assistant's training and annual safety review. The training records must include copies of written tests and dates of oral tests given after July 14, 1987. The training records must be retained until 3 years following the termination of employment. Records of annual safety reviews must list the topics discussed and be retained for 3 years.

(e) The licensee shall include the following subjects in the training required in paragraph (a)(1) of this section:

(1) Fundamentals of radiation safety including—

(i) Characteristics of radiation;

(ii) Units of radiation dose and quantity of radioactivity;

(iii) Hazards of exposure to radiation;

(iv) Levels of radiation from licensed material;

(v) Methods of controlling radiation dose (time, distance, and shielding); and

(vi) Radiation safety practices, including prevention of contamination, and methods of decontamination.