

**4732.0510 PROCEDURES AND SAFETY INSTRUCTION FOR FACILITIES.**

Subpart 1. **Training requirement.** An individual operating radiation-producing equipment must be instructed initially in facility specific and system specific safe operating procedures, emergency procedures, quality control procedures, and the proper protective shielding to be used. Additional training must be conducted at the time of any change to the quality assurance program or change in radiation output.

Subp. 2. **Safety procedures for the facility.**

A. The registrant must maintain safety procedures including patient holding, if applicable, and any restrictions of the operating technique required for the safe operation of the particular system. The procedures must be made available to x-ray operators.

B. All individuals who, in the course of employment in a year, are likely to receive an occupational dose in excess of 100 millirems (1.0 mSv) must be:

(1) kept informed of the use of radiation;

(2) instructed in the health protection problems associated with exposure to radiation, in precautions to procedures to minimize exposure, and in purposes and functions of protective devices employed;

(3) instructed of their responsibility to report promptly to the registrant any condition that leads to or causes a violation of this chapter or any unnecessary exposure to radiation; and

(4) instructed in the appropriate response to warnings made in the event of any malfunction that involves exposure to radiation.

C. The registrant must maintain the documentation of training in this subpart according to part 4732.0330.

Subp. 3. **Exposure of individuals other than patient.** Except for the patient, only the staff, ancillary personnel, or nonmedical persons required for the medical, dental, and veterinary medical procedures or training must be in the room during the radiographic exposure. All individuals including staff, ancillary personnel, or nonmedical persons required for assistance with the radiographic procedures must be positioned so that no part of the body will be struck by the useful beam unless protected by 0.5 millimeter lead equivalent material.

A. During any radiographic or fluoroscopic exposure, any door that is part of the protective barrier must be closed.

B. No individual other than the patient must be in a therapy treatment room during exposures from a therapeutic x-ray system operating above 150 kVp.

C. The thyroid and eyes must be protected if the potential exposure to the worker would exceed the dose limits in part 4732.0410.

Subp. 4. **Gonad protection.** Except for cases in which it would interfere with the diagnostic procedure, during radiographic procedures in which the gonads are in or within two inches (5cm) of the useful beam, gonad shielding of not less than 0.5 millimeters lead equivalence must be used for patients who have procreative potential.

Subp. 5. **Holding.** When a patient, film cassette, or intraoral film must be provided with auxiliary support during a radiation exposure, the following conditions apply:

- A. mechanical holding devices must be used when the technique permits;
- B. safety procedures, as required by subpart 2, must indicate the requirements for selecting the individual holding and the procedure that the individual must follow;
- C. the human holder must be instructed in personal radiation safety and protected as required by subpart 2, item B, subitem (2); and
- D. no individual must be used routinely to hold intraoral film, film cassettes, or patients.

Subp. 6. **Records.** Records must be maintained according to part 4732.0330.

**Statutory Authority:** *MS s 144.12*

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