

44:03:01:10. General safety provisions to protect persons from radiation exposures.

The licensee shall be responsible for directing the operation of any X ray system under the licensee's administrative control. The licensee or the licensee's agent shall provide that:

(1) No X ray system may be operated for diagnostic purpose unless the system meets the provisions of this chapter;

(2) Any person who is operating the X ray system is adequately instructed in the safe operating procedures and competent in the safe use of the equipment commensurate with the size, scope, and nature of the service. Any such person shall be instructed and demonstrate competence in subjects outlined in § 44:03:01:14.01;

(3) Procedures and auxiliary equipment designed to minimize patient and personnel exposure commensurate with the needed diagnostic information is utilized. The speed of film or screen and film combinations shall be the fastest speed consistent with the diagnostic objective of the examinations. The radiation exposure to the patient shall be the minimum exposure required to produce images of good diagnostic quality;

(4) A technique chart or manual is located in the vicinity of the control panel of each machine that specifies, for all diagnostic examinations performed with that system, the following information:

- (a) The technique factors to be used that are specific to a patient's anatomical part, size, or age (for pediatrics), except for any system that has only automatic exposure controls;
- (b) The type of film-screen combination to be used;
- (c) The type of grid to be used, if any;
- (d) The SID to be used, except for dental and all other fixed SID radiographic equipment;
- (e) The type and placement of patient shielding to be used;
- (f) The routine views for all procedures done with each machine; and
- (g) For mammography, an indication of kVp/target/filter combination;

(5) A written operating and safety procedure must be available to each individual who operates radiation machines. These procedures shall include restrictions for the safe operation of each radiation machine. The operator shall be able to demonstrate familiarity with these procedures;

(6) Except for veterinary facilities, each facility maintains a record containing the patient's name, the type of examination, the date the examination was performed, and equipment operator;

(7) Except for patients who cannot be moved out of the room, only the staff, ancillary personnel or other persons required for the medical procedure shall be in the room during the radiographic exposure;

(8) Personnel monitoring of radiation exposures and records must be maintained by the licensee of the radiation source. Monitoring with dosimetry devices shall be required for all persons routinely exposed to radiation in their occupation. Dental and podiatry offices are exempt from this requirement. Exposures should not exceed 300 millirems per calendar quarter. Maximum occupation exposures shall not exceed the limits specified in the following table:

Rems per Calendar Quarter

| | |
|---|--------|
| Whole body; head and trunk; active blood-forming organs; lenses of eyes; gonads | 3 3/4 |
| Hands and forearms; feet and ankles | 18 3/4 |
| Skin of whole body | 7 1/2 |

(9) Radiation sources shall be labeled and caution signs posted to provide a warning to all persons within the exposure area.

Source: SL 1975, ch 16, § 1; 6 SDR 93, effective July 1, 1980; 26 SDR 96, effective January 23, 2000; 31 SDR 62, effective November 7, 2004.

General Authority: SDCL 34-21-4.1, 34-21-15.

Law Implemented: SDCL 34-21-4.1, 34-21-25, 34-21-26.