

4732.0355 GENERAL REQUIREMENTS FOR SHIELDING AGAINST IONIZING RADIATION.

Subpart 1. **Applicability.** This part applies to all regulated facilities constructed or structurally remodeled 90 days after November 5, 2007.

Subp. 2. **Requirements.** The registrant must ensure that the applicable structural shielding requirements specified in parts 4732.0355 to 4732.0380 are met. Structural shielding modifications must be made if an analysis of operating conditions indicates the possibility of an individual receiving an occupational dose or a dose to the public in excess of the limits in parts 4732.0400 to 4732.0430.

Subp. 3. **Shielding details.** The shielding must be constructed so that the protection is not impaired by objects passing through the barriers or embedded in the barriers. The primary and secondary barriers must meet the dose limits in parts 4732.0400 to 4732.0430. This includes, but is not limited to, areas of walls containing wall-mounted image receptors.

Subp. 4. **Operator's booth design requirements.** The operator's booth, exposure control, and viewing system must meet the following specifications:

A. must have no less than 7.5 square feet (0.7 square meters) of unobstructed floor space with no dimension less than two feet (0.6 meters);

B. must be located and constructed so the unattenuated direct scattered radiation does not reach the operator in the booth;

C. the booth walls must be permanently fixed barriers at least seven feet (2.1 meters) high;

D. the radiation exposure control placement must:

- (1) be fixed within the booth;
- (2) be at least 39 inches (one meter) from the edge of the control booth; and
- (3) be placed to allow the operator to use the viewing window or other viewing device from within the booth; and

E. the viewing system must be designed so that:

- (1) each booth has at least one viewing device that will be placed so that the operator at the control panel may directly observe the patient, any other individual in the room, and any doorway into the room; and

- (2) if the viewing system is a window, the window must satisfy the following additional requirements:

- (a) it must have the same lead equivalency as required in the booth's wall in which it is mounted;

(b) it must have a minimum viewing area of 350 square inches and must be constructed to afford x-ray operators an unobstructed view of the patient and all entrances into the room; and

(c) it must be designed so the operator's expected viewing position is at least 18 inches (0.46 meters) from the edge of the booth.

Subp. 5. **Records.** The registrant must maintain all records of shielding plans and results of radiation measurements at the facility according to part 4732.0330.

Statutory Authority: *MS s 144.12*

History: *32 SR 777*

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