4732.0360 SHIELDING PLAN.

Subpart 1. **Shielding plan applicability.** inety days after November 5, 2007, the registrant is required to have a shielding plan complete for new constructions or structural remodeling of their radiation-producing equipment areas.

Subp. 2. **Shielding plan requirements.** The shielding plan must show all basic assumptions used in the development of the shielding specifications and show, at a minimum:

A. the dimensions of the rooms concerned;

B. the normal location of the radiation-producing system's x-ray tube's general direction of the useful beam and the tube's travel and transverse limits;

C. locations of any windows, doors, or other openings;

D. the location of the operator's booth and the location of the control panel;

E. the structural composition and thickness or lead equivalent of all walls, doors, partitions, and, if occupied spaces above or below, the floor and ceiling of the rooms concerned;

F. the make and model of the equipment;

G. the maximum technique factors and the energy waveform;

H. the type of examinations or treatments that will be performed with the equipment;

I. information on the anticipated workload of the systems in mA-minutes per week; and

J. the use of areas adjacent and an estimation of the extent of occupancy in these areas.

Subp. 3. **Modifications.** The review of shielding plans must not preclude the requirement of additional modifications should a subsequent analysis of operating conditions indicate the possibility of an individual receiving a dose in excess of the dose limits prescribed in parts 4732.0400 to 4732.0430.

Subp. 4. **Shielding review.** Ninety days after November 5, 2007, the shielding plan must be submitted to the commissioner prior to any new construction or structural remodeling.

Subp. 5. **Exemptions.** Exemptions from the shielding review:

A. dental facilities with only intraoral capabilities;

B. bone densitometry units;

C. mammography units;

D. podiatry units;

E. if the replacement of a piece of radiation-producing equipment does not increase the risk of radiation beyond the dose limits in parts 4732.0400 to 4732.0430;

F. self-shielded x-ray systems, such as cabinet x-ray units, x-ray diffraction or fluorescence units with interlocked shield barriers; and

G. for a self-shielded accelerator, the applicant need not submit an evaluation of a shielding plan if an evaluation by an appropriate regulatory authority has been performed. The applicant must reference the evaluation and maintain a copy of the evaluated shielding plan for commissioner review.

Subp. 6. **Records.** The following shielding plan documentation must be maintained on a permanent basis by the registrant of the facility:

A. shielding plan data including all assumptions and specifications;

B. construction, or as-built, documents showing location and amounts of shielding material installed;

C. postconstruction radiation evaluation;

D. information regarding remedies, if any was required;

E. all reevaluations of the room shielding relative to changes in utilization that have been made; and

F. the shielding plan information must include the name of the individual completing the plan and the date on which it was completed.

Subp. 7. **Permanent placard.** A permanent placard must be mounted in the room specifying the amount and type of shielding in all walls, doors, partitions, and, if occupied, spaces above or below the floor and ceiling. If mounting the information is not practical, a registrant may post a notice in the room that describes the document and states where it may be examined.

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