**44:03:01:11.01.  Shielding plan review prior to installation of radiation facilities or equipment.** Prior to construction, the facility owner or the facility's shielding plan designer must submit the floor plans, shielding specifications, and equipment arrangement of any new X-radiation producing equipment installation or any modification of existing X-radiation producing equipment installations to the department for review and approval. The plans must show:

 (1)  The normal location of the machine's radiation port, the general direction of the useful beam, the location of any windows and doors or other openings, the location of the operator's booth, and the location of the control panel;

 (2)  The structural composition and thickness or lead equivalent of all walls, doors, partitions, floor, and ceiling of the room concerned;

 (3)  The dimensions of any room concerned;

 (4)  The type of occupancy of any adjacent areas inclusive of space above and below the room concerned. If there is an exterior wall, the plans must show distance to the closest area where it is likely that individuals may be present;

 (5)  The make and model of the equipment, the maximum technique factors, and the energy waveform; and

 (6)  The type of examinations or treatments to be performed with the equipment and the anticipated workload of the system in milliampere-minutes per week.

 The department may require the applicant to utilize the services of a qualified physicist to determine the shielding requirements prior to the plan review and approval. The approval of the plans by the department does not preclude the requirement for additional modifications should a subsequent change of operating conditions create the possibility of an individual receiving a dose in excess of the limits.

 **Source:** 26 SDR 96, effective January 23, 2000; 50 SDR 41, effective October 11, 2023.

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

 **Law Implemented:** SDCL 34-21-4.1, 34-21-17.