

WAC 246-225-060 Radiographic systems other than fluoroscopic, dental intraoral, or veterinary systems—Beam limitation. The useful beam shall be limited to the area of clinical interest and show evidence of collimation. This shall be deemed to have been met if a positive beam limiting device has been properly used or if evidence of collimation is shown on at least three sides or three corners of the film, (for example, projections from the shutters of the collimator, cone cutting at the corners or a border at the film's edge).

(1) *General purpose stationary and mobile X-ray systems.*

(a) There shall be provided a means for stepless adjustment of the size of the X-ray field such that at least two dimensions of the X-ray field are independently variable. The minimum field size at a SID of 100 centimeters shall be equal to or less than ten by ten centimeters.

(b) Adequate means shall be provided for visually defining the perimeter of the X-ray field. The total misalignment of the edges of the visually defined field with the respective edges of the X-ray field along either the length or width of the visually defined field shall not exceed 2 percent of the distance from the source to the center of the visually defined field when the surface upon which it appears is perpendicular to the central axis of the X-ray beam.

(2) *In addition to the requirements of WAC 246-225-060(1) above all stationary X-ray systems shall meet the following requirements:*

(a) Means shall be provided to indicate when the axis of the X-ray beam is perpendicular to the plane of the image receptor and to align the center of the X-ray field with respect to the center of the image receptor to within 2 percent (5 percent for equipment manufactured prior to August 1974) of the SID. Dental lateral jaw examinations shall be excluded from this requirement;

(b) The beam-limiting device shall numerically indicate the field size in the plane of the image receptor to which it is adjusted;

(c) Indication of field size dimensions and SID's shall be specified in inches and/or centimeters;

(d) Indication of field size dimensions shall be such that aperture adjustments result in X-ray field dimensions in the plane of the image receptor to within 2 percent of the SID when the beam axis is perpendicular to the plane of the image receptor.

(3) *Radiographic equipment designed for only one image receptor size at a fixed SID shall be provided with means to limit the field at the plane of the image receptor to dimensions no greater than those of the image receptor, and to align the center of the X-ray field with the center of the image receptor to within 2 percent of the SID.*

(4) *Special purpose X-ray systems.*

(a) These systems shall be provided with means to limit the X-ray field in the plane of the image receptor so that such field does not exceed each dimension of the image receptor by more than 2 percent of the SID when the axis of the X-ray beam is perpendicular to the plane of the image receptor.

(b) These systems shall be provided with means to align the center of the X-ray field with the center of the image receptor to within 2 percent (5 percent for equipment manufactured prior to August 1974) of the SID.

(c) The above WAC 246-225-060 (4) (a) and 246-225-060 (4) (b) may be met with a system that meets the requirements for a general purpose X-ray system as specified in WAC 246-225-060(1) or, when alignment means are also provided, may be met with either:

(i) An assortment of removable, fixed-aperture, beam-limiting devices sufficient to meet the requirement for each combination of image receptor size and SID for which the unit is designed (each such device shall have clear and permanent markings to indicate the image receptor size and SID for which it is designed); or

(ii) A beam-limiting device having multiple fixed apertures sufficient to meet the requirement for each combination of image receptor size and SID for which the unit is designed. Permanent, clearly legible markings shall indicate the image receptor size and SID for which each aperture is designed and shall indicate which aperture is in position for use.

[Statutory Authority: RCW 70.98.050 and 70.98.080. WSR 91-15-083 (Order 183), § 246-225-060, filed 7/23/91, effective 8/23/91. Statutory Authority: RCW 43.70.040. WSR 91-02-049 (Order 121), recodified as § 246-225-060, filed 12/27/90, effective 1/31/91. Statutory Authority: RCW 70.98.080. WSR 83-19-050 (Order 2026), § 402-28-051, filed 9/16/83. Statutory Authority: RCW 70.98.050. WSR 81-01-011 (Order 1570), § 402-28-051, filed 12/8/80; Order 1084, § 402-28-051, filed 1/14/76. Formerly WAC 402-28-050 (part).]