**Section 360.100 Veterinary Radiographic Systems**

In addition to the provisions of Sections 360.10, 360.30 and 360.40 (except Section 360.40(a)) of this Part, the requirements of this Section apply to x-ray equipment and associated facilities used for radiography with veterinary systems.

a) Beam Limitation. The useful beam shall be limited to the area of clinical interest. The size of the image receptor used for each radiographic projection shall be consistent with the objectives of the examination.

1) Limitation Criteria. Means shall be provided to limit the x-ray field in the plane of the image receptor so that the field does not exceed each dimension of the image receptor by more than two percent of the SID when the axis of the x-ray beam is perpendicular to the plane of the image receptor.

2) Means shall be provided to align the center of the x-ray field with the center of the image receptor to within two percent of the SID.

3) The requirements of subsection (a)(1) of this Section may be met with:

A) An adjustable collimator with a field defining light; or

B) 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 used, with each such device having permanent, clearly legible markings in centimeters and/or inches, to indicate the image receptor size and SID for which it is designed; or

C) 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 used. Permanent, clearly legible markings, in centimeters and/or inches, shall indicate the image receptor size and SID for which each aperture is designed and shall indicate which aperture is in position for use.

4) SID Indication

A) Means shall be provided to indicate the SID.

B) SIDs shall be indicated in centimeters and/or inches and the measured SID shall correspond to the indicated value to within two percent.

b) Exposure Switch Arrangement. The exposure control switch shall be arranged so the operator can be at least 1.83 meters (6 feet) from the animal, the x-ray tube and the useful beam.

c) Radiation Exposure Control Devices

1) Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, preset number of pulses or preset radiation exposure to the image receptor. Also, it shall not be possible to make an exposure when the timer is set to a zero or off position if either position is provided.

2) The exposure switch shall be a dead-man switch.

d) Veterinary fluoroscopic, computed tomography and therapy systems shall meet the requirements specified in Sections 360.50, 360.75, 360.110 and 360.120 of this Part, except that the requirements pertaining to aural communication specified in Sections 360.75(b)(2), 360.110(a)(8) and (e)(5) and 360.120(a)(6) and (g)(1)(H) of this Part, need not be satisfied unless a human is used to hold the animal.

e) Additional Requirements for Veterinary X-Ray Systems

1) All individuals whose presence is required during an x-ray examination shall be protected from scatter radiation by protective aprons or gowns of not less than 0.25 millimeter lead equivalent or whole body protective barriers.

2) All exams and retakes shall be ordered by the veterinarian.

3) Unless required to restrain an animal, the operator shall stand at least 1.83 meters (6 feet) away from the useful beam and the animal during radiographic exposures.

4) No individual, other than the operator, shall be in the x-ray room or area while exposures are being made unless such individual's assistance is required.

5) When an animal must be held in position during radiography, mechanical supporting or restraining devices shall be used when technique permits.

6) When a person is required to hold an animal during a radiographic procedure, the individual shall be protected with appropriate shielding devices, such as protective gloves and apron, and the person shall be so positioned that no part of his/her body except hands and arms will be struck by the useful beam.

AGENCY NOTE: Veterinarians should review 32 Ill. Adm. Code 340.520 to determine if individuals who hold animals will need to use individual monitoring devices.

(Source: Amended at 22 Ill. Reg. 5904, effective March 13, 1998)