

(15) Veterinary Radiographic Installations.

(a) Equipment.

1. The tube housing shall be of the diagnostic type.
2. The primary beam for diagnostic purposes in radiography and fluoroscopy should not be larger than clinically necessary and shall not be greater than the image receptor. Cones, diaphragms, or adjustable collimators capable of restricting the primary beam to the area of clinical interest shall be used and shall provide the same degree of protection as is required in the tube housing.
3. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor.
4. The exposure switch shall be of a dead-man type.
5. The total filtration permanently in the useful beam shall not be less than the appropriate value stated in .04(6)(d)1.(i) or (ii).
6. A means shall be provided for aligning the center of the x-ray beam with the center of the image receptor prior to an x-ray examination.
7. An easily discernible indicator which shows whether or not x-rays are being produced shall be on the control panel.
8. The installation shall be so arranged that the operator can stand at least six feet from the animal, the x-ray tube and out of the useful beam.
9. Lead gloves and aprons shall be available for use, and shall be used by all personnel in the room during an exposure.
10. The effectiveness of protective equipment (i.e., gloves, aprons, etc.), shall not be impaired.

(b) Operating Procedures.

1. Only persons whose presence is necessary shall be in the radiographic area during exposure. Protective clothing of at least 0.25 mm lead equivalent shall be provided and shall be worn by all individuals required to be in controlled areas, except when the individuals are entirely behind protective barriers while the equipment is energized.
2. Patient support:
 - (i) When an animal patient or film must be held in position for radiography, mechanical supporting or restraining devices, or other means of immobilization, shall be used unless human holding is required by the technique.
 - (ii) If an animal patient must be held or positioned manually, the individual holding the animal shall wear protective gloves having at least 0.5 mm lead equivalency and a protective apron of at least 0.25 mm lead equivalency;
 - (iii) Personnel monitoring devices shall be used if radiation measurements indicate potential exposure in excess of 25 percent of the applicable values specified in Section .03(2)(a)1. to the head, or trunk of the body.