

RADIATION SAFETY PROCEDURES FOR VETERINARY OFFICES

1. GENERAL

- A. The radiation to the animal shall be the minimum exposure to produce images of good diagnostic quality.
- B. The speed of film and film-screen combination shall be the fastest consistent with the diagnostic objectives of the radioactive examination.
- C. Individuals under the age of 18 years are restricted to an occupational dose of 500 millirem per year.
- D. See 10 CFR 20.1502 for additional information

2. RADIATION SAFETY PROCEDURES

A. Personnel Monitoring Devices (Film Badges):

- 1. A personnel monitoring device shall be issued to any individual who is operating the x-ray unit or is assisting when a radiographic exposure is being made.
- 2. The film badge shall be worn at the collar OUTSIDE of a leaded apron.
- 3. The position on the body at which the film badge is worn and used SHALL NOT be changed during any calendar quarter.
- 4. Exposing a film badge to deceptively indicate a dose to an individual is prohibited.
- 5. If an x-ray badge is lost or damaged during a monitoring period, the individual's exposure over the last three months should be averaged and that average added to the annual dose for the missing 3-month period.

- B. Leaded Aprons of not less than 0.25 mm lead equivalent and a pair of Leaded Gloves of not less than 0.5 mm lead equivalent must be made available to any individual who is operating the x-ray unit at the radiographic table position or is assisting at the radiographic table when an exposure is being made.

3. OPERATING PROCEDURES

Note: The term DIRECT x-ray beam is used as equivalent to USEFUL BEAM which is outlined by the light field.

- A. Operators and assistants must be positioned in such way that no part of the body will be struck by the DIRECT x-ray beam.
- B. The x-ray beam should not be directed towards doors, windows, x-ray controls or towards the darkroom walls unless no other positioning is available.
- C. The operator shall stand at least 6 feet away from the direct x-ray beam and the animal during radiographic exposures unless an animal must be held by the operator.
- D. No individual other than the operator shall be in the x-ray room during x-ray exposures unless such individual's assistance is required.
- E. Where it is not possible to use radiographic tables, mechanical film holding devices shall be used to avoid an assistant standing in the DIRECT x-ray beam.
- F. Neither tube heads nor beam limiting cones (portable units) shall be hand-held during an exposure.
- G. Supporting or restraining devices should be used to hold animals in position during a radiographic exposure.
- H. Where it is necessary for an individual to hold an animal in position on the radiographic table during an exposure, they and the operator must be protected by leaded gloves and by a leaded apron. They also must wear an x-ray badge on the outside of the lead apron.

Further procedures for operating the x-ray equipment at this facility are as follows:
