

RIN #24 Guidelines for Workers Assisting During an X-ray Procedure at a Small Animal Veterinary Facility

This RIN provides guidance for workers (veterinarian, animal health technologist, other staff) who assist in diagnostic procedures that involve the use of x-ray equipment in a small animal veterinary practice. The purpose is to help employers and employees take appropriate actions to ensure workers are aware of and are effectively protected against radiation exposure during x-ray procedures. Employers need to be aware of their obligations to protect all workers in accordance with the requirements for ionizing radiation as specified in the *WorkSafeBC Occupational Health and Safety Regulation* (the *Regulation* - see [Part 7, Div 3](#)). Employers need to also be aware of [Safety Code 28: Radiation Protection in Veterinary Medicine](#) and the College of Veterinarians of BC (CVBC) Facility Practice Standards. Employers should consult the CVBC Radiation Safety Manual, which provides a compilation of the requirements under the *WorkSafeBC Regulation* and the CVBC Facility Practice Standards.

General Recommendations

- Only one x-ray procedure at a time must be carried out within the x-ray room.
- All workers involved in x-ray procedures must be aware of the radiation hazards involved and follow workplace safety protocols.
- Except when the worker is required to assist directly during an x-ray procedure, the worker should maximize the distance between themselves and the x-ray equipment during its use to help minimize their radiation exposure.
- All entrance doors to an x-ray room should be kept closed while the procedure is being performed. An x-ray warning sign is required on doors to the x-ray room.
- X-ray equipment must be operated only by individuals who are properly trained for the equipment and the procedure being performed.
- X-ray equipment that is energized and ready to produce radiation must be supervised by a qualified individual.
- All persons required to be present during an x-ray procedure must take advantage of available personal x-ray protective devices (i.e. lead-lined apron, thyroid shield and gloves – see [RIN#10 - Proper Selection, Care, Quality Control and Disposal of Lead Aprons](#)).
- Holding devices should be used to support animals whenever practicable. If necessary, the animal should be sedated. However, if this is not possible and a worker must restrain the animal, protective aprons, thyroid shields and gloves must be worn. Direct irradiation of the worker by the x-ray beam must be avoided. Workers should avoid performing these duties regularly.
- For table-top radiography, the film cassette must never be held by hand. A radiographic cassette holder must always be used.
- Primary radiation badges must be worn beneath the lead apron, at waist level, to verify that body dose is below the Action Level of 1 mSv/year, as specified in the *Regulation*. Additional secondary dosimeters may be worn outside the lead apron to determine doses to other parts of the body (i.e. head, hands). Contact your dosimetry service provider for details on appropriate dosimeter types and correct wearing.

The Pregnant Worker

- A female worker should immediately notify her employer upon knowledge that she is pregnant in order that appropriate steps may be taken to ensure that her radiation exposure during the remainder of the pregnancy does not exceed the dose limit for a pregnant worker as given in the *Regulation* (see [Part 7, Div 3, Sect 7.21](#)).
- A pregnant worker or a worker considering starting a family is entitled to counseling and further education on radiation protection issues and concerns regarding reproduction. Consulting with your personal physician is appropriate.

For further information contact:

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