

EH&S Fast Facts

SAFETY REQUIREMENTS FOR RADIATION-PRODUCING MACHINES



Those authorized by the State of California to operate diagnostic radiation-producing machines are required to comply with the following list of regulatory standards and good health practices. All occupationally exposed workers should make every effort to maintain their radiation exposure **As Low As Reasonably Achievable (ALARA)**.

Procedures

- Always be aware of the location of your hands with respect to the x-ray beam (never place hands in the useful beam)
- An x-ray worker should not hold a patient or a film except in an emergency [Section 30308(b)(1)*]
- The operator is responsible for clearing the x-ray room of non-essential people before generating x-rays [Section 30308(b)(2)*]
- Keep dosimeters dry, contamination-free, and away from sources of extreme heat
- The operator of a mobile unit should stand at least six feet from the patient and away from the useful beam [Section 30309(a)(2)*]
- Whole body dosimeters should be worn
 1. Single-badge workers - on the collar outside lead apron
 2. Double-badged workers - on the collar outside lead apron, and at the waist under lead apron
- If you are issued a finger ring dosimeter, wear it on the hand most likely to receive the highest dose
- Wear assigned dosimeter (film badge or TLD) any time you work with or near radiation-producing machines [Section 30305-9)* and 10 CFR 20.1201] or throughout workday (don't take it home to decrease the chances of misplacing or throwing it in the laundry)
- If dosimeter is exposed to radiation, becomes contaminated with radioactive materials or is exposed to a radiopharmaceutical that your physician gave you for a nuclear medicine scan, inform EH&S as soon as possible
- To speed up the reporting process, exchange dosimeters during the first week of each exchange period - it is very important to turn in your dosimeter promptly so exposure levels can be obtained and problems can be identified
- A lost or damaged dosimeter results in a dose estimate to the worker's exposure record
- If you work with radiation sources outside of UCR, be sure to contact the EH&S so a total exposure dose for the year can be tracked

*California State Radiological Health Regulations, Title 17

Visit www.ehs.ucr.edu for additional information or call EH&S at 827-5528 if you have any questions.