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.