

EH&S Fast Facts

DOSIMETRY

Radiation Monitoring for Workers



State and federal government agencies set limits for permissible radiation exposure to employees during a calendar year. Additionally, at UC Riverside, every effort is made to maintain radiation exposure **As Low As Reasonably Achievable (ALARA)**. With the exception of embryo or fetus exposure, the exposure goals are to keep exposures to less than one-half the state and federal limits.

Radiation Exposure Limits

Exposure Area	Limit
Whole Body	2.5 rem/yr
Lens of the Eye	7.5 rem/yr
Skin and Extremities	25 rem/yr
Embryo/Fetus	0.5 rem/entire period of gestation
Age 18 & below	Less than 10% of limits

Documentation of Radiation Exposure

- ✦ An EH&S representative determines if you are assigned a dosimeter based on potential radiation exposure (don't take dosimeters home)
- ✦ Wear dosimeter any time near a radiation source (or throughout work day)
- ✦ Always wear your whole body dosimeter on the trunk of the body between collar and waist level
- ✦ If you work with x-ray machines, wear the single badge on collar, outside of lead apron or the double badge- one on the collar outside lead apron, and one on the waist under lead apron
- ✦ To speed up reporting process, please make every effort to exchange dosimeters during the first week of each month or calendar quarter (January, April, July, October)
- ✦ If dosimetry is not turned in by the 8th of the month, compliance points will be assessed
- ✦ If your dosimeter is exposed to radiation/ contaminated with radioactive material, or your physician gives you a radiopharmaceutical for a nuclear medicine scan, inform EH&S as soon as possible
- ✦ When you terminate your use of radiation sources at UCR, leave your dosimeter with your department dosimetry coordinator or contact EH&S
- ✦ Keep dosimeters dry, contamination free, and away from sources of heat
- ✦ If you work with radiation sources outside of UCR, contact EH&S to track total radiation dose for the year
- ✦ If a dosimeter is damaged or lost, EH&S will estimate dose and add to the worker's exposure record
- ✦ Workers who operate mobile x-ray machines must wear dosimeters (fluoroscopy operators performing interventional procedures may be assigned 2 badges as determined by EH&S)
- ✦ Various radionuclides and experimental activities require dosimeters, but not for beta emitters with E_{\max} energies less than 1500 keV

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