

# SAFETY FOCUS

## IONIZING RADIATION

**Radiation is energy that comes from a source and travels through space. Ionizing radiation has high enough energy to produce charged particles (ions) in matter. X-rays, gamma rays, alpha, beta, and neutron particles are examples of ionizing radiation.**

**WHO:** All those who plan to work with ionizing radiation at the University of Utah must receive the appropriate radiation safety training prior to engaging in such work and becoming a *Radiation Worker*. *Radiation Workers* must be authorized under an approved *Radiation Work Permit* issued by EHS Radiation Safety.

**WHAT:** A *Radiation Work Permit* is issued to a qualified individual, typically the Principle Investigator of a lab, who will be the *Permit Holder*. The *Permit Holder* is responsible for all use of radioactive material and/or radiation producing equipment in their lab. EHS Radiation Safety has oversight responsibility to ensure permit conditions are met.

**WHERE:** Locations where radiation will be used must be approved by EHS Radiation Safety. Appropriate postings and signage will be installed at entrances to radiation areas.

**WHY:** The University is committed to the health and safety of students, faculty, staff, visitors, community members and the environment. An essential part of this commitment is strict compliance with State of Utah regulations and rules.

**HOW:** Contact EHS Radiation Safety through [rsr@utah.edu](mailto:rsr@utah.edu) or 801-581-6590. Our health physicists and radiation analysts can guide you through the permitting process, arrange training, assist with lab setup, and help with source acquisition/disposal, etc.

### Radiation Safety Trainings:

- › General Radiation Worker Training
- › Safe Use of Radioactive Material
- › Safe Use of Radiation Producing Equipment
- › Safe Use of Radiation in Medicine
- › Radiation Hazard Awareness Training (for workers that may work around, but not with, ionizing radiation hazards)

### Obtaining a *Radiation Work Permit*:

1. Requestor completes and submits permit application to EHS Radiation Safety.
2. *Permit Holder* and *Radiation Workers* complete required trainings.
3. Permit application is reviewed by EHS Radiation Safety.
4. On-site evaluation visit.
5. Final review and approval granted by the University Radiation Safety Committee.
6. Lab startup inspection and installation of postings/signages.

Requestor completes and submits permit application

Requestor (and all workers listed on permit) complete training

Application review by EHS Radiation Safety

Radiation Safety Committee reviews and approves

EHS Radiation Safety/RSO notifies Permit Holder of approved permit authorization