# FactSheet Radioactive Material Handling Precautions

rolonged exposure to energetic sources and high level radiation can lead to injury and death. It is important to always be proactive when working with radioactive materials (RAM). Plan your experiments to reduce handling time, use shielding, and distance yourself from the radioactive source.

# Prepare work area

- Delineate work area with special radiation labeling tape and signs.
- Apply absorbent material (diapers) and trays to prevent spread of contamination.
- Dedicate labware/equipment to rad work and apply radiation labels to all.

# RADIOACTIVE MATERIAL Isotope Amount Date

# Wear Personal Protective Equipment (PPE)

- Wear safety glasses, lab coat, and closed-toe shoes.
- Select appropriate disposable glove for the specific chemical/material.
  Wear two layers to safeguard against accidental breaching.



# **Keep good work practices**

- Avoid generating mixed waste (i.e., chemical and/or bio agents combined with radioactivity).
- Handle volatile, radio-labelled compounds in a chemical fume hood, NOT an open bench top.
- Ensure that original container and recipient container are labeled when aliquotting.



#### Wrap up

- Dispose of radioactive waste promptly. Record radioactivity in EHSAssistant <a href="http://tiny.cc/usc-ehs-EHSA">http://tiny.cc/usc-ehs-EHSA</a>
- Secure radioactive stock solutions after use.
- Survey self and work area for contamination with a survey meter.
  Decontaminate if necessary. Document survey results in EHSAssistant.
- Remove PPE and wash hands thoroughly with warm water and soap before leaving the laboratory.



# What I need to do...

- ✓ Plan my experiments to reduce handling and exposure time.
- ✓ Wear appropriate PPE.
- Participate in the bioassay program if required. Wear a body/ring dosimeter if needed.
- ✓ Contact EH&S at (323) 442-2200 if I have any questions/concerns.

# In case of spill

- Inform others of the spill and prevent entry into area.
- Clean the spill if resources are available. For large spills, contact DPS at (213) 740-4321.
- If skin contamination is detected, wash with mild soap and lukewarm water. Do not abrade the skin. Contact DPS and Radiation Safety at (323) 442-2200 to report the exposure.

#### DO NOT:

- Leave the laboratory or touch things outside of the workspace with potentially contaminated gloves.
- Eat, drink, or apply cosmetics in the lab.
- Touch exposed skin while working with RAM.
- Dispose of RAM down the sink.

# **Additional Information**

EHSAssistant: http://tiny.cc/usc-ehs-EHSA

USC Radiation Safety Manual: Chapter 7: Good Laboratory Practices 10CFR part 20 Subpart F

