

Radiation Emergency Procedures

A radiation emergency may include any of the following:

- An over-exposure from a radiation producing machine or from radioactive materials.
- Personal contamination from radioactive materials.
- Possible inhalation or ingestion of radioactive materials.
- A spill of radioactive materials.

**** In the event of a radiation emergency during work hours (Monday – Friday 8:00am – 4pm), please contact the Radiation Safety Department at (410)706-7055, or call Campus Police at 911 if the emergency occurs during off hours.

If there is a spill, remember the following acronym:

S.W.I.M.

- **S**top the spill. Take actions to prevent the further spread of radioactive contamination.
- **W**arn others. Report the spill to EHS. Report whether there are any contaminated and/or injured personnel. Call 911 for any medical emergencies. Treatment of life-threatening injuries is a priority over spill actions. Document all actions taken to resolve the situation.
- **I**solate the spill area. Use physical barriers if possible. Verify contamination boundaries by scanning the area with the appropriate radiation detection instruments. Keep in mind that certain isotopes (i.e., H-3, etc.) cannot be detected using portable instrumentation. A liquid scintillation counter (LSC) must be used in these instances.
- **M**inimize your exposure. Wear the necessary PPE. Avoid contact with the skin. Make use of time, distance and shielding.

If there is a minor spill (less than 10 microcuries of radioactive material):

- Attempt clean-up only if you have received appropriate training.
- Clean area using standard cleaning agents, and dispose of all contaminated cleaning materials into a radioactive waste container.
- Repeat cleaning procedure until contamination levels go below 200 DPM.
- Monitor area, hands, and shoes for contamination with appropriate radiation detection instruments.

If there is a major spill (greater than 10 microcuries of radioactive material):

- Evacuate the area/keep hoods running/turn off any oscillating fans.
- Have all potentially contaminated personnel stay in a designated area until they have been shown to be free of contamination.
- Call the Radiation Safety Department at EHS (410)706-7055 if the spill occurs during work hours. If the spill occurs off hours, please call Campus Police at 911.
- Follow all instructions from the RSO. Do not re-enter area until RSO gives approval.
- Have personnel knowledgeable of the incident and laboratory, remain available to provide information to emergency personnel.

Emergency Procedure Forms:

- ALL laboratories are required to post the University of Maryland Radiation Emergency Procedures in each area where radioactive materials are permitted to be used or stored. [University of Maryland Radiation Emergency Procedures](#) PDF.
- Written instructions for Radiation Emergency Procedures PDF.