

Emergency Procedures - Radioactive Material Spills

This notice must be prominently posted near all work areas where radioactive materials are used. For information, call the Radiological Safety Office: ext. 54226.

1. Protect personnel:
 - a. Warn other workers IMMEDIATELY.
 - b. Extreme hazards (e.g., high radiation levels or the possibility of airborne contamination from dry or volatile radioactive materials): evacuate the laboratory IMMEDIATELY; close and lock the door(s).
2. Confine the hazard:
 - a. Localize the spill. Right any tipped containers. Drop absorbent material on the spill. Cover a dry spill with moist absorbent material.
 - b. Do not track contamination about the laboratory. Call out, do not go for help.
 - c. Check shoes before leaving area of a cleaned-up spill. Check clothing and any objects possibly contaminated. Remove any contaminated, or potentially contaminated, articles of clothing and place them in a conspicuously labeled container and leave them in the area of the spill or within the controlled area.
3. Contact the Radiological Safety Office immediately, ext. 54226.

Major Spills of Liquids and Solids

A major spill is any incident which may result in the contamination of any person, or the inhalation, ingestion, or injection of the spilled radioactive material by any individual. Do not attempt to apply minor spill procedures if unsure. The RSO shall determine if the number of individuals affected, other hazards present, likelihood of spread of contamination, and the quantity or characteristics of the spilled material also warrant major spill procedures. Otherwise, the spill is a "minor spill".

Major Spill Procedures

- Clear the area. Notify all persons not involved in the spill to vacate the room. Call 911 if any emergency situation exists, or assistance is required for control of access to and egress from the contaminated area.
- Prevent the spread of contamination by covering the spill with absorbent paper, but do NOT attempt to clean it up. To prevent the spread of contamination, limit the movement of all personnel who may be contaminated.
- Shield the source if possible. This should be done only if it can be done without further contamination or without a significant increase in personal radiation exposure.
- Close the room and lock or otherwise secure the area to prevent entry.
- Notify the RSO immediately.
- Decontaminate personnel by removing contaminated clothing, by flushing contaminated skin with lukewarm water, and then by washing with mild soap. If contamination remains, induce perspiration by covering the area with plastic. Then, wash the area again to remove contamination released.
- The RSO will supervise the clean-up of the spill and will complete a Supervisor*s Accident Investigation Report. Affected personnel shall also file an SIIS Notice of Injury or Occupational Disease.

Minor Spills of Liquids and Solids

- Notify persons in the area that a spill has occurred.
- Prevent the spread of contamination by covering the spill with absorbent.
- Clean up the spill using disposable gloves and absorbent paper. Carefully fold the paper with the clean side out and place in a plastic bag for transfer to a radioactive waste container. Also, put contaminated gloves and any other contaminated disposable material in the bag.
- Survey the area with a survey meter capable of detecting the nuclide, or wipe test the area. Also check your hands, clothing, and shoes for contamination.
- Repeat clean-up procedures, and notify the Radiological Safety Officer if detectable contamination persists.