



RADIOACTIVE MATERIALS SAFETY (RAM) AND EMERGENCY PROCEDURES

RAM SAFETY PROCEDURES		RAM EMERGENCY PROCEDURES	
<ol style="list-style-type: none">Always wear appropriate PPE when working with radioactive material i.e., (a) lab coat or other protective clothing, (b) disposable gloves, (c) safety goggles or glasses, (d) long pants, and (e) closed-toe shoes. NOTE: Open-toe shoes and sandals are not permitted in the laboratory.Wear personal dosimeters and ring dosimeters when working with radionuclides that emit:<ol style="list-style-type: none">Beta particles with energies greater than 600 keV when these radionuclides are used in quantities exceeding 5 mCi of activity and/orGamma rays when these radionuclides are used in quantities exceeding 1 mCi of activity.Bioassay is required for radioiodine use per Radiation Safety Manual provisions (see page 9.5).Pregnant workers are advised to contact the Radiation Safety Officer for consultation.Maintain good hygiene:<ol style="list-style-type: none">Keep fingernails short and clean.Wash hands and arms thoroughly after working with radioactive material.Do not handle radioactive material if there is a break in the skin on hands or fingers.Do not eat, drink, smoke, or apply cosmetics in work areas where radioactive material is used. Do not leave food related items (e.g., empty containers) in these areas.Use remote handling devices as required. Never pipette by mouth.Keep the laboratory areas neat and clean. Cover the benches with absorbent padding where radioactive material is handled.Label refrigerators/freezers with “Caution Radioactive Materials”, and do not store food or beverages for human consumption in them.Conduct weekly or monthly surveys of all areas where radioactive material was used. It is best practice to survey before and after each day of radioactive material use.Keep liquid radioactive material in a leak-proof container and secondary container.Place radioactive waste only in marked and approved waste containers provided by the Hazardous Materials Division.Secure and lock laboratory doors or storage areas where radioactive materials are present.Segregate and label all radioactive material containers with appropriate label stating the: (a) Radionuclide, (b) Activity, (c) Date, and (d) Inventory #.		Minor Radiation Spill <ol style="list-style-type: none">Notify all persons in the area that a spill has occurred.Don disposable gloves and cover spill with absorbent pad (or paper). Wipe contaminated area from perimeter towards the center in a single motion. Repeat using a clean portion of the pad each time until spill is cleaned. Place contaminated pad in a plastic bag and dispose of it in a radioactive waste container. Request hazmat pickup via EHSA.Use a survey meter to check the area around the spill, your hands, shoes, and clothing for contamination. Perform follow-up wipe tests and decontaminate as necessary.Document the incident and email radsafety@usc.edu.	
		Major Radiation Spill <ol style="list-style-type: none">Notify all persons not involved in the spill to vacate the room.Don disposable gloves and cover the spill with absorbent pad (or paper). Do not attempt to clean it up. Confine movement of all personnel to prevent the further spread of contamination. Prevent personnel from entering the contaminated area.If possible, return stock vials to their shields, but only if it can be done without significantly increasing your radiation exposure.Notify the Radiation Safety Officer and your lab supervisor.Remove and store contaminated clothing for further evaluation by the Radiation Safety Office.	
		Personnel Decontamination <p>The face and hands are parts of the body where contamination most frequently occurs.</p> <ol style="list-style-type: none">Determine contamination extent with most sensitive detector. Remove contaminated clothing immediately.Flush affected area with copious quantities of lukewarm water (using a sink, emergency shower, or eyewash station depending on the extent of contamination) for at least 15 minutes. Then, wash with mild soap and water. Work lather into contaminated area by rubbing gently for 3 minutes. Rinse thoroughly. Scan with survey monitor.If contamination persists, repeat Step 2 and rescan. If contamination further persists, discontinue washing and allow radioisotope to decay. Contamination is affixed to the skin protein and removal is extremely difficult. DO NOT use any abrasives, strong detergents, or brushes as these will damage the skin and facilitate entry of radioactive contaminants into the body.Notify your supervisor and the Radiation Safety Officer. Seek medical attention if required.	
IN CASE OF A RADIATION ACCIDENT			
Principal Investigator:		Phone:	
Alternate:		Alternate Phone:	
Department of Public Safety HSC: 323-442-1000 UPC: 213-740-4321		Radiation Safety Officer 323-443-2200	