



PI:

LABORATORY:

RADIATION SAFETY PROCEDURES

EMERGENCY PROCEDURES

1	Wear lab coats or other protective clothing as an outer garment at all times while working with radioactive material.
2	Wear disposable gloves when handling radioactive material.
3	Wear personnel dosimeters and finger dosimeters when working with radionuclides that emit beta particles with energies greater than 600 keV when these radionuclides are used in quantities exceeding 5 mCi of activity.
4	Wear personnel dosimeters and finger dosimeters when working with radionuclides that emit gamma rays when these radionuclides are used in quantities exceeding 1 mCi of activity.
5	Use remote handling devices as required.
6	Use an eye protection device while working in the laboratory.
7	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.
8	Open toe shoes and sandals are not permitted in the laboratory.
9	Maintain good hygiene by: -keeping fingernails short and clean -washing hands and arms thoroughly before handling any object that goes in the mouth, nose or eyes. -not handling radioactive material if there is a break in the skin below the wrist or by wearing two pairs of gloves when handling the radioactive material.
10	Keep the laboratory areas neat and clean. Cover the benches with absorbent padding where radioactive material is handled.
11	Never pipette by mouth.
12	Label refrigerators or freezers with " Caution Radioactive Materials " sign and do not store food or beverages for human consumption in them.
13	Wipe tests of all areas where radioactive material has been used will be conducted weekly or monthly as appropriate.
14	Keep liquid radioactive material in a leak proof container.
15	Washing hands and arms thoroughly after working with radioactive material.
16	Bioassay is required (in accordance with the Radiation Safety Manual (pages 4-10 & 4-14).
17	Place radioactive waste only in marked and approved waste containers provided by the Safety Office.
18	Secure and lock laboratory doors or storage areas where Radiation Materials are present.
19	Pregnant workers are advised to contact the Radiation Protection Office to Receive more information.
20	Segregate and label all radioactive material containers with appropriate label stating the: -Radionuclide -Amount of Activity -Date -RMC #

HOW TO RESPOND TO A MINOR SPILL	
1	Notify all persons in the area that a spill has occurred.
2	Wearing disposable gloves, cover the spill with absorbent paper. Rub the contaminated area from the perimeter towards the center, using a clean portion of the rag for each application. Carefully fold the absorbent paper or pad, insert it in a plastic bag and dispose of it in a radioactive waste container.
3	With an appropriate survey instrument, check the area around the spill, and your hands, shoes and clothing for contamination. Perform follow-up wipe tests and decontaminate as necessary.
4	Document the incident in writing to the Safety Office.

HOW TO RESPOND TO A MAJOR SPILL	
1	Notify all persons not involved in the spill to vacate the room
2	Cover the spill with absorbent pads, but do not attempt to clean it up. Confine the movement of all potentially contaminated personnel to prevent the further spread of contamination. Prevent personnel from entering the contaminated area.
3	If possible, return stock vials to their shields, but only if it can be done without significantly increasing your radiation exposure.
4	Notify the Safety Office and your lab supervisor.
5	Remove and store contaminated clothing for further evaluation by the Safety Office. If the spill is on the skin, flush thoroughly and wash with mild soap and lukewarm water.

PERSONNEL DECONTAMINATION	
Face and hands are the parts of the body contamination most frequently occurs	
1	Determine contamination extent with most sensitive detector.
2	Remove contaminated clothing.
3	Flush the affected area with copious quantities of lukewarm water for 15 to 20 minutes.
4	Wash with mild soap and water. Work lather into contaminated area by rubbing gently for 3 minutes. Rinse thoroughly.
5	Monitor. If contamination persists wash them again as in 4.
6	Monitor. If contamination persists use cold cream, baby oil or Vaseline to gently rub the skin.
7	Monitor. If contamination persists, DO NOT wash them any more. DO NOT use any abrasives, strong detergents, or brushes. The contamination is fixed to the protein of the skin and it will be extremely difficult to remove it. Let the isotope decay by itself, otherwise the skin will be defamed or injured and the contaminant will penetrate it causing not only external but internal contamination.
8	Notify your supervisor and the Radiation Protection Office (x22200). Send a report to the RPO.

IN CASE OF A RADIATION ACCIDENT, PHONE:		
PRINCIPAL INVESTIGATOR – DR.	HSC	UPC
RADIATION PROTECTION OFFICE	(323) 442-2200	
DEPARTMENT OF PUBLIC SAFETY (DPS)	(323) 442-1000	(213) 740-4321