



# EMERGENCY PROCEDURES FOR RADIOACTIVE MATERIAL



(1 of 2)

## **LARGE SPILL**

**A spill of greater than 100  $\mu$ Ci of any radionuclide, or a large spill on the floor or where personnel are contaminated.**

1. Immediately notify all persons in the area that you have had a spill of radioactive material.
2. Notify all persons not involved in the spill to vacate the room. Be sure to survey all individuals as they leave the room. Especially important is to survey the soles of the shoes worn by these individuals to assure that the spill has been contained within the room and is not spread outside of the room. Also survey hands, lab coats, and other clothing. Contaminated clothes put into plastic bag.
3. Prevent the spread of contamination by covering the spill with absorbent paper and by limiting the movement of all personnel who may be contaminated.
4. Shield the source if necessary. This should be done only if it can be done without further spread of contamination or a significant increase in radiation exposure.
5. Report the incident to the Radiation Safety Officer by phone. If after hours or on a weekend, contact the Radiation Safety Officer through the NMSU Dispatcher. This applies 24 hours a day, 7 days a week.
6. Prevent unauthorized entry by closing the door to the room and placing a "Caution: Contaminated Area" sign or warning tape across the entrance. If possible, an individual who is not contaminated should be stationed outside of the door to prevent unauthorized entry until the spill is cleaned up.
7. Decontaminate personnel immediately if individuals are contaminated, following procedures for personnel decontamination on page 2.
8. Clean up the spill using appropriate protective apparel (disposable gloves, shoe covers, lab coat, eye protection, and respirator if necessary) and absorbent pads. Carefully fold absorbent paper with clean side out and place in plastic bag for transfer to a radioactive waste container. Also put contaminated gloves and any other contaminated disposable material in the bag.

9. Survey the area using an appropriate radiation detector-survey meter or liquid scintillation counter. Check the area around the spill. Also check your hands, clothing, and shoes for contamination.
10. Document all survey results and cleanup efforts in a written report. **Forward a copy of the written report to the Radiation Safety Officer.** Keep a copy of the written report on file with the laboratory Radiation Safety Survey Records.

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## **EMERGENCY TELEPHONE NUMBERS**

Radiation Safety Officer	646-1023 (office)
David Schoep	312-6649 (cell)
Environmental Health & Safety	646-3327
Police or Fire	<b>911 (Emergency)</b>
Non-Emergency Dispatcher	646-3311
Memorial Medical Center	522-8641
NM Environment Dept.	
24 Hour Emergency	(505) 827-9329

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**FIRE** in the event of a general fire in the laboratory

1. Call 911 and report fire emergency. Report the hazards that are present such as radioactive materials, chemicals, compressed gas.
2. Utilize available firefighting equipment to control or extinguish small fires that can be safely handled prior to arrival of the fire department.
3. Report the incident to the Radiation Safety Officer by phone. If after hours or on a weekend, contact the Radiation Safety Officer through the NMSU Dispatcher. This applies 24 hours a day, 7 days a week.



# EMERGENCY PROCEDURES FOR RADIONUCLIDES



## **PERSONNEL DECONTAMINATION**

Promptly decontaminate personnel by taking the steps listed below, using appropriate containers to collect waste materials generated during the decontamination process.

1. Notify the Radiation Officer immediately by phone. If after hours or on a weekend, contact the Radiation Safety Officer through the NMSU Dispatcher. This applies 24 hours a day, 7 days a week.
2. Remove contaminated clothing and place in a plastic bag
3. Flush contaminated skin with lukewarm water.
4. Wash contaminated skin with a mild soap and lukewarm water. Use of a small sponge or soft brush (e.g., complexion brush) may be helpful. Avoid irritating the skin. Repeat steps 2 and 3 as necessary.
5. Monitor for contamination after each series of washing and rinsing to determine the effectiveness of the decontamination efforts.
6. If fingernails or fingertips are contaminated, clip nails as short as possible, and repeat 2,3, & 4.
7. If contamination persists, induce perspiration by covering the area with plastic (e.g. place a latex or vinyl glove over a contaminated hand, and tape opening at wrist). Then wash the affected area again to remove any contamination that was released by the perspiration.
8. Terminate decontamination efforts when:
  - a. All radioactive contamination has been removed; or
  - b. The surveys following each of several successive decontamination steps indicate that contamination levels are no longer decreasing; or
  - c. Erythema (reddening of the skin) has occurred.

## **RELEASE OR LOSS OF RADIOACTIVE MATERIAL**

In the event that radioactive materials are released to the environment or discovered missing, notify the Radiation Officer immediately by phone. If after hours or on a weekend, contact the Radiation Safety Officer through the NMSU Dispatcher. This applies 24 hours a day, 7 days a week. The Radiation Safety Officer will provide guidance and assistance specific to the situation.

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## **SPILL RESPONSE KIT CONTENTS:**

It is the responsibility of each permit holder to maintain essential decontamination supplies in his/her laboratory. Supplies should include the following:

	i. absorbent pads - (disposable)
	j. absorbent towels (disposable)
	k. mild soap (e.g. Joy or hand soap, suitable for skin decontamination)
	l. small soft brush (suitable for skin decontamination, e.g. complexion brush)
	m. small sponge (suitable for skin decontamination)
	n. gloves (disposable and heavy duty)
	o. shoe covers (disposable)
	p. heavy duty plastic bags for collecting used absorbent materials, etc.
	q. scouring pad, disposable mop, broom and dust pan
	j. decontaminating solutions (e.g. Radiac-Wash, Rad-Con, Count Off, etc.)
	k. tape ("Caution: Radioactive Materials" or "Caution: Contaminated Area")
	l. signs ("Caution: Contaminated Area")