



Office of Environmental Health & Safety  
695 Park Avenue, Hunter East 1211A  
New York, NY 10065

# Radioactive Spill Procedures

All laboratory personnel should read these procedures prior to commencing work.

Estimate the amount of radioactivity spilled to determine whether spill is minor and can be immediately decontaminated or major and require additional services.

<u>Supplies</u>	
Paper towels or spill pads RADCON, Scrubbing Bubbles, or some other disinfecting cleaner Plastic bags Labels Gloves Goggles Geiger Counter	
<u>Liquid Spills</u>	<u>Dry Spills</u>
<ul style="list-style-type: none"> <li>• Wear rubber or plastic gloves.</li> <li>• Drop absorbent paper on spill.</li> </ul>	<ul style="list-style-type: none"> <li>• Wear rubber plastic gloves.</li> <li>• Place damp absorbent paper over spill.</li> <li>• Take care not to spread contamination.</li> <li>• Decontaminate as necessary.</li> <li>• Permit no person to resume work in the area until a survey has been made.</li> </ul>

## Minor Spill

A spill can generally be considered minor if it contaminates small areas or equipment and results in no external or internal contamination of personnel, no excessive external radiation exposure to personnel, and no serious delay in work.

In the event of a minor spill:

1. Notify all other persons in the room.
2. Restrict number of persons in spill area.
3. Confine and decontaminate spill immediately.

## Major Spill

A spill is considered major if it results in internal radiation exposure to personnel (inhalation/ingestion of radioactive material), excessive external radiation exposure to or contamination of personnel, contamination of large areas, and considerable delay in work.

In the event of a major spill:

1. Notify persons not involved to vacate the room at once.
2. If a liquid spills, right the container (have hands protected with gloves).
3. If spill is on skin, flush thoroughly.

4. If spill is on clothing, remove at once.
5. Turn off all fans or ventilation, if possible.
6. If possible, shield the source and prevent the spread of contamination by covering the spill with absorbent paper labeled "caution radioactive material," but do not attempt to clean the spill.
7. To prevent the spread of contamination, clearly indicate the boundaries of the spill and limit the movement of all personnel who may be contaminated.
8. Perform these steps only if it can be done without further contamination or increase radiation exposure.
9. Shut the door and secure to prevent entry.
10. Limit movement outside of the room until evaluated.
11. Notify Radiation Safety through the Environmental Health and Safety at Ext. 4462.
12. Decontaminate personnel involved as per Radiation Safety instructions.
13. Decontaminate area as per Radiation Safety instructions.
14. All persons involved must be monitored.
15. Permit no person to resume work in the area until a survey is made.

#### Radioactive Dusts/Mists/Fumes/Gases

1. Notify other persons to vacate room.
2. Hold breathe, close valves, turn off air-circulating devices, as time permits.
3. Vacate room.
4. Close all doors - post area.
5. Notify Radiation Safety through the Environmental Health and Safety Ext. 4462.
6. Report suspected inhalations of radioactive material.
7. Detain all persons suspected of being contaminated.
8. Decontaminate as instructed by Radiation Safety.
9. An air survey must be performed before work can be resumed.

#### Injuries Involving Radiation Hazards

1. Wash minor wounds immediately under running water, spreading edges of wound.
2. Notify Radiation Safety through the Environmental Health and Safety Ext. 4462.
3. Have employee proceed to Radiation Protection or call Public Safety Ext. 4444.
4. In the case of traumatic injury, call 911.

#### Fires Involving Possible Radiation Hazards

1. Sound alarm.
2. Call operator and report location.
3. Notify Radiation Safety through the Environmental Health and Safety Ext. 4462.
4. Close all doors and windows.
5. Extinguish the fire, if possible.
6. Decontamination may be necessary before work is resumed in the area.

#### Personnel Decontamination

Contaminated clothing should be removed and stored for further evaluation by the Radiation Safety Officer. If the spill is on the skin, flush thoroughly with lukewarm water and then wash with a mild soap. If contamination remains, induce perspiration by covering the area with plastic. Wash the affected area again to remove any contamination that was released by perspiration.