



STATE UNIVERSITY OF NEW YORK
COLLEGE OF OPTOMETRY

Environmental Health and Safety		
Policy Number: 8-1		
Title: Laboratory Emergency Spill Plan		
Effective Date: 11/2006	Revision: 5/2019	Number of pages: 5

PURPOSE:

To provide uniform procedures to be followed in the event a hazardous material spill occurs in the laboratory.

SCOPE:

University wide.

DEFINITIONS:

Highly Hazardous Materials: Includes chemicals that are carcinogenic, reproductive toxins, and substances which have a high degree of acute toxicity.

Carcinogens: A chemical that is regulated by OSHA as a carcinogen; listed under the category “known to be carcinogens” or “reasonably anticipated to be carcinogens” in the Annual Report on Carcinogens published by the National Toxicology Program (NTP); or listed under Group 1 “carcinogenic to humans”, Group 2A or 2B by the International Agency for Research on Cancer Monographs(IARC).

Reproductive Toxins: Chemicals which affect reproductive capabilities, including chromosomal damage (mutagenic) and effects on fetuses (teratogenic).

High Acute Toxicity: Chemicals which may be fatal or cause damage to target organs as a result of a single exposure that short in duration.

POLICY:

Only staff trained in spill responses shall be allowed to clean-up spills.

PROCEDURES:

Emergencies

For emergencies such as fires, explosions, spills or transportation accidents, the basic protocol is:

1. Rescue anyone immediately affected by the emergencies. Only perform rescue techniques if it does not put yourself at risk. If trained, provide first aid to the victims.
2. Notify the proper authorities:
 - a. If the emergency involves a fire, use the manual pull box to activate the alarm.
 - b. For other emergencies, contact University Police at 5555, and describe the emergency. Request the Environmental Health and Safety Officer for chemical emergencies.
3. Warn others in the area about the emergency, and stay clear of the area.
4. Follow the directions of the Emergency Responders (i.e. Fire Department personnel, Environmental Health and Safety Officer).

Biohazard Spills in the Laboratory

A. Employee Contamination

1. If the skin becomes contaminated with blood other potentially infectious materials, wash the area thoroughly with soap and water.
2. If blood or other potentially infectious material is splashed into the eyes, immediately use the eyewash station, and flush for at least 15 minutes.
3. Remove grossly contaminated clothing immediately. Place the contaminated clothing in a red biohazard bag.
4. Report the spill to a Supervisor, and seek medical attention.

B. Clean Up

1. Only trained personnel should attempt to clean up a spill. Wear personal protective equipment (PPE) appropriate for the substance that has been spilled. At a minimum, this includes gloves, protective eyewear and a mask, or a face- shield. Depending on the size and type of spill, impervious gowns, protective foot coverings, and/or respirators may be needed.
2. Pick up any broken glass with tongs or some other mechanical device. Do not use your hands.
3. Place absorbent towels over the spill, making sure not to spread the liquid.

4. Carefully pour a dilute bleach solution (1:10) or other EPA registered tuberculocidal agent over the absorbent towels. Let this remain for 10 minutes in order to disinfect the spill.
5. Carefully pick up the absorbent towels, and place into a red biohazard bag. Wash the contaminated area again with the bleach or other disinfectant. Rinse the area with water.
6. All PPE, towels, and other items that become contaminated must be disposed of as regulated medical waste.
7. Wash hands and any other exposed skin with soap and water before leaving the work area.

C. Spills or Breakage in a Centrifuge

1. Turn off the centrifuge, and allow it to come to a full stop before opening the cover.
2. Wear the appropriate PPE to clean the spill.
3. Remove any broken glass with tongs, and clean the spill as outlined above.

D. Spills in a Biological Safety Cabinet or Laminar Flow Hood

1. Do not shut off the ventilation. The cabinet should be left running to prevent the escape of contaminants.
2. Wear the appropriate PPE. If the material is infectious, a respirator may be needed. Contact the Environmental Health and Safety Officer at extension 5581 for additional information.
3. Use a diluted bleach solution (1:10) or an EPA registered tuberculocidal agent to disinfect the cabinet. Wipe the walls, work surfaces, and equipment with the disinfectant. Use a sufficient amount of the disinfectant to ensure that the drain pans and catch basins below the work surface get disinfected. Lift the front exhaust grill and tray, and wipe all surfaces. Let the disinfectant stand for 10 minutes. Wipe the catch basin, and drain the disinfectant into a container. Wipe the area with water.
4. This procedure will not disinfect the filters, blowers, airducts, or other interior parts of the cabinet. If the cabinet is to be sterilized, contact the Environmental Health and Safety Officer for additional information.

Chemical Spills

A. Employee Contamination

1. If the skin becomes contaminated with hazardous materials, wash the affected area thoroughly with copious amounts of water. If available, use the Emergency Shower for at least 15 minutes.

2. If a hazardous material is splashed into the eyes, immediately use the eyewash station, and flush for at least 15 minutes.
3. Remove grossly contaminated clothing immediately. Place the contaminated clothing in a plastic bag.
4. Report the spill to a Supervisor, and seek medical attention.

B. Small Chemical Spill Clean Up

1. Small spills are less than 20 to 30 cc, or 1 ounce. These spills can be cleaned up by trained laboratory personnel.
2. Wear appropriate personal protective equipment (PPE) to clean up the spill. At a minimum, this includes gloves, and protective eyewear. Depending on the size and type of spill, protective clothing, protective coverings, and a respirator may be needed.
3. Pick up any broken glass with tongs or some other mechanical device. Do not use your hands.
4. Place absorbent material over the spill, making sure not to spread the liquid.
5. Dispose of all contaminated material in a plastic bag. Label the bag with the name of the hazardous material. Contact the Environmental Health and Safety Officer for disposal.

C. Large Chemical Spill Clean Up

1. Large chemical spills are greater than 20 to 30 cc, or any quantity of a chemical that has a highly hazardous material.
2. Immediately evacuate the area and close all doors. Notify others not to enter the area.
3. For spills of highly hazardous materials, activate the fire alarm by pulling the nearest fire alarm box.
4. Contact University Police at extension 5555, and the Environmental Health and Safety Officer at extension 5581.
5. Inform the Environmental Health and Safety Officer of the location of the spill, the name of the material, and the approximate quantity of spilled material.
6. Do not reenter the area until advised by the Environmental Health and Safety Officer that it is safe to do so.

Hazardous Material Spill Kits/Stations

Room 1612 – Chemical Storage Room – (Inside)

1. SPILL X-A 2.5lbs (3) For Treatment of Acid Spills
2. SPILL X-C 2.0lbs (3) For Treatment of Caustic Spills
3. SPILL X-S 1.0lbs (8) For Treatment of Solvent Spills
4. SPILL XFP 1.85lbs (6) Formaldehyde Polymerizer Spill Treatment Kit
5. Mercury Vapor Absorbent Powder (2)
6. Super Sorbent – Liquid & Oil Sorb (Hazardous Waste Bag, Scoop & Goggles) (2)
7. Oil-Dri 2 (3 gallon pails) (Scoop & Spatula)

Room 1612 – Chemical Storage Room - (Outside)

Universal Spill Kit Station – Hazorb

- 4 hazorb pillow
- 2 pair of goggles
- 2 tyvek QC coveralls
- 2 pair of gloves (silvershield)
- 2 pair of gloves (nitrile)
- 16 vss sorbent pads

*Spill control pillows contain foamed sand which will absorb acids, caustic, solvents or oil spill.
DO NOT USE ON HYDROFLUROIC ACID, as it will create a toxic gas.

1611 – Mechanical Room

Oil-Dri Absorb

INQUIRIES/REQUESTS

Environmental Health and Safety
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