

APPLICATION

NYU Langone Medical Center (NYULMC)

PURPOSE

To establish guidelines for all laboratory personnel to follow in the event of a hazardous laboratory incident, and to limit the impact of such an event.

POLICY AND GENERAL INFORMATION

1.0 Responsibilities

- 1.1 Principal investigators, or their designees, are responsible for ensuring that all laboratory personnel are informed of hazards associated with their work and trained in the appropriate emergency procedures to implement during an incident in the laboratory.
- 1.2 Laboratory personnel shall be familiar with and understand all emergency procedures, and the process of implementing these procedures in the event of an emergency. They shall report all incidents immediately to the principal investigator or laboratory supervisor and Environmental Health & Safety (EH&S) and/or Radiation Safety.
- 1.3 In addition to the above, all persons with laboratory duties are responsible for examining their laboratory procedures in terms of potential hazards arising from unusual conditions such as:
 - electrical power failure
 - gas valve failure
 - heating or cooling system failure
 - automatic controls failure
 - ventilation failure
 - pressure change
 - breakage or spill of material

2.0 Emergency Procedures

- 2.1 All phones in laboratories should be equipped with emergency telephone number stickers. Stickers may be obtained from EH&S.

- 2.2 A binder of Material Safety Data Sheets (MSDS) for chemicals used or stored in the lab should be maintained in each lab and readily available for lab personnel. MSDS can be obtained online or from manufacturers.
- 2.3 Universal spill clean-up kits shall be maintained in each lab. Spill kits are available from EH&S.
- 2.4 Each laboratory shall be equipped with a 10-lb. ABC dry chemical fire extinguisher for each 2,500 sq. ft. of area.
- 2.5 Working alone in a lab is to be avoided. When working alone, employees should notify people in nearby labs, and arrange with them to check on the lab periodically. When working after hours, arrangements should be made with Security to check on the lab. Security should also be notified when the lab is vacated.
- 2.6 Unattended Operations After-Hours

For labs where unattended operations will continue after hours, leave lab lights on and place sign on door indicating operations in progress. Arrange for periodic lab inspections by Security. Hazardous operations should not be left unattended.

3.0 Emergency Priorities

- 3.1 Remove all personnel from immediate danger. All injured or exposed personnel should be brought to Employee Health Service or Emergency Room (following emergency first aid treatment, if needed).
- 3.2 Alert personnel in the immediate vicinity and the person in charge of the lab. Summon aid.
- 3.3 Evacuate the area affected by the condition.
- 3.4 Contain the condition.
- 3.5 Immediately after the emergency has been resolved, an investigation of the events should be conducted to determine what corrective action can be taken. EH&S is available for assistance in the review process.

4.0 Specific Emergency Procedures

- 4.1 Fire And / Or Explosion

Follow the procedures outlined in Safety Policy No. 122 (Fire Prevention) and in the Fire Safety Handbook. Copies of the Fire Safety Handbook are available from EH&S (ext. 35159).

4.2 Chemical Spills

Follow procedures outlined in the appropriate Chemical Spill Clean-up Kits for minor spills. For major spills notify EH&S at ext. 35159 (during off-hours and weekends contact Communications for EH&S response).

4.3 Hazardous Gas Leak

4.3.1 If flammable gas, turn off all sources of ignition.

4.3.2 If possible, turn off the source of gas.

4.3.3 Open all windows in the area and leave on the lights.

4.3.4 If conditions in the laboratory present such a level of danger as to prevent entrance by lab personnel, activate the nearest fire alarm immediately. Call Communications and give them your name and a number at which you can be reached (to obtain further information about the situation).

4.3.5 Evacuate the area.

4.3.6 Report the incident to EH&S (x35159), Facilities Management (x35275) and to the head of the laboratory. Outside of normal working hours, report the incident to the Security Department (x73000).

4.3.7 Do not reenter the area until it has been declared safe by EH&S, Facilities Management or the NYC Fire Department.

4.4 Leak Or Spill Of Radiation/Radioactive Material

4.4.1 Evacuate the area.

4.4.2 Report the incident to Radiation Safety (x36888), and to the head of the lab.

4.4.3 Do not reenter the area until it has been declared safe by Radiation Safety.

4.4.4 Refer to the Radiation Safety Regulations and posted Emergency Procedures for more detailed instructions.

4.5 Spill of Pathogenic Material

4.5.1 Biosafety Level 1 (BSL1) Spills

4.5.1.1 A BSL1 spill is one involving well-characterized agents that are not known to cause disease in healthy adult humans, and are of minimal potential hazard to laboratory personnel.

4.5.1.2 Employees must wear disposable gloves when cleaning spills of BSL1 agents.

4.5.1.3 Soak paper towels in disinfectant and place over the spill.

4.5.1.4 Clean the spill with fresh towels soaked in disinfectant.

4.5.1.5 Discard waste in a red bag.

4.5.2 Biosafety Level 2 (BSL2) Spills

4.5.2.1 A BSL2 Spill is one involving agents of moderate potential hazard to personnel and the environment (for example, bloodborne pathogens). BSL2 agents may be transmitted through direct contact with skin or mucous membranes. In some cases, they may also be transmitted by aerosols.

4.5.2.2 Alert people in the immediate area of the spill.

4.5.2.3 Wear a lab coat with long sleeves and protective gloves, and a face mask with eye protection.

4.5.2.4 Cover spill with paper towels or other absorbent material.

4.5.2.5 Carefully pour a freshly prepared 1 in 10 dilution of household bleach around the edges of the spill and then into the spill. Avoid splashing.

4.5.2.6 Allow 20-minute contact period.

4.5.2.7 Use paper towels to wipe up the spill, working from the edges into the center.

4.5.2.8 Clean spill area with fresh towels soaked in disinfectant.

4.5.2.9 Discard waste in a red bag.

REFERENCES

1. Microbiology Laboratory Policy and Procedure Manual

- a. Infection Control Manual - Microbiology Laboratory
- b. Laboratory Emergency Contingency Plan - T.H., Department of Pathology

2. Fire Safety Handbook

3. Laboratory Safety Handbook

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