13.0 BIOLOGICAL EMERGENCIES AND SPILLS

Emergency Incidents

If an emergency is immediately dangerous to you or others in the building or if the emergency cannot be handled by university personnel (for example: fire):

1) Evacuate the lab if your life is in danger or if you can evacuate without spreading contamination.
2) Pull the fire alarm as you evacuate the building.
3) Call 911 to reach fire/ambulance/police.
4) If you can do so safely, also call Ohio University Police Department (OUPD) 740-593-1911 and then EHS 740-593-1666.
5) Call the laboratory supervisor if they are not aware of the emergency.

For medical emergencies:
1) Call 911 to reach the ambulance.
2) Stay with the injured party until medical assistance arrives.
3) Inform the 911 operator of any potential contamination before the medical staff arrives.
4) After the 911 operator tells you to hang-up, call the laboratory supervisor, if they are not aware of the emergency. Then call EHS 740-593-1666.

For smaller incidents that are not emergencies, but require assistance from other university staff:
- Minor medical incidents: call OUPD 740-593-1911 to transport students or staff to Hudson Health Center, and then inform the laboratory supervisor if necessary.
- Spills for which you require assistance to clean-up: inform the laboratory supervisor if necessary and then call EHS 740-593-1666.

Reporting

1) For minor incidents that are handled in the laboratory inform the laboratory supervisor.

2) Laboratory supervisors are responsible for reporting all incidents to the appropriate university offices, possibly including: Department Chair, Center/Institute Director, Workers Compensation Office, OUPD, or EHS.

3) Some incidents involving biohazardous material require reporting to agencies outside of the university (EPA, NIH, etc.). Report all biohazardous incidents to EHS BSO, so that when necessary, the proper reporting will take place. Route all reporting to such agencies through EHS.
4) Following all injuries:
   a. Complete an OU Incident Report Form
      i. This form may also be used to document incidents that do not result in injuries.
   b. If the incident included a sharps injury, also complete the Sharps Injury Report Form

Biohazardous Agent Spills

Each laboratory must have a plan and equipment available to deal with spills that occur in their laboratory. Each event may require variations of procedures and equipment, but basic outlines are provided below. See Appendix E for a printable overview of spill procedures, and Appendix F for information on chemical disinfectants.

Spill Kit – These supplies must be available in the laboratory, either as a specific kit or as part of the standard lab equipment. All workers in the lab must know the location of this equipment.

- Concentrated Disinfectant
- Disposable Absorbent Material (paper towels, commercial absorbents, etc.)
- Forceps and/or Dust Pan & Brush for picking up broken glass (make sure they can be disinfected)
- Gloves and Splash Goggles – both utility gloves and lab/exam style gloves should be available
- Biohazard bags
- Instructions on how use the specific equipment (ex: how to dilute the disinfectant) and general clean up procedures.

For all spills
1) Notify others and restrict access to the area, if necessary.

2) Remove sharps, broken glass, etc., using a tool, before absorbing up the spill. Place the sharps directly into a biohazard sharps container for disposal.

Spill inside a biological safety cabinet
1) Leave cabinet turned on.

2) Disinfectant and gloves should already be available at cabinet, but if they aren’t available, get them now.

3) Put on PPE

4) Spray or wipe the walls, work surfaces and equipment with disinfectant. If necessary, flood the work surface, drain pans and catch basin.

5) Wait for the contact time of the disinfectant (usually 15 minutes).
6) Absorb the disinfectant and spill with disposable absorbent. Make sure to get all surfaces, including under the exhaust grill and tray. Make sure no absorbent debris is left in the cabinet.

7) Place all absorbent material into the biohazardous waste. If the absorbent is ‘dripping’, double bag it before placing into the infectious waste box.

8) Wash hands and any other exposed area.

9) Notify EHS if the spill overflows into the inner workings of the cabinet, as a more thorough decontamination may be necessary.

**Small spill outside of a biosafety cabinet**
(approximately <500 mL and able to be absorbed by the spill kit supplies)

1) Don the appropriate personal protective equipment (at least splash goggles, gloves, and lab coat).

2) Cover the spill with absorbent material.

3) Pour disinfectant over the spill and absorbent material.

4) Allow contact time appropriate to the disinfectant, usually 15 minutes.

5) Pick or scoop up absorbent material, from the outside to the inside of the spill, and put directly into a biohazardous waste container. If the absorbent is ‘dripping’ double bag it before placing into the infectious waste box.

6) Rewipe the spill area with disinfectant.

7) Wash hands and any other exposed area.

**Large spill outside of a biosafety cabinet**
(approximately >500 mL or any spill that cannot be handled with the lab spill kit supplies)

1) Get Help!

2) Notify the lab manager and EHS 740-593-1666.

3) Prevent spreading contamination by restricting access the area (put up a sign, lock the door, etc.)
Personnel Exposure to Biohazardous Agents

Exposure to Intact Skin

1) Remove contaminated clothing. Clothing should be cut-off rather than pulling the contaminated clothing over the face where contact with the eyes, nose or mouth may occur.

2) Wash the contaminated skin with soap and water for 1 minute.

3) If necessary, seek medical attention at the Occupational Health Clinic or by calling 911.

4) Inform your supervisor, complete an incident report form. If necessary, inform EHS.

Exposure to Broken Skin, Damaged Skin, a Puncture Wound

1) Remove contaminated clothing. Clothing should be cut-off rather than pulling the contaminated clothing over the face where contact with the eyes, nose or mouth may occur.

2) Wash the contaminated skin with soap and water for 5 minutes.

3) If necessary, seek medical attention at the Occupational Health Clinic or by calling 911.

4) Inform your supervisor, complete an incident report form. If necessary, inform EHS.

Exposure to the Eyes

1) Flush your eyes with water, using an eyewash, for 15 minutes. Hold your eyelids open and rotate your eyes to flush all surfaces.

2) Remove contaminated clothing. Clothing should be cut-off rather than pulling the contaminated clothing over the face where contact with the eyes, nose or mouth may occur.

3) If necessary, seek medical attention at the Occupational Health Clinic or by calling 911.

4) Inform your supervisor, complete an incident report form. If necessary, inform EHS.
Exposure to other Mucous Membranes (Nose, Mouth)

1) Flush the exposed area with water for 5 minutes.

2) Remove contaminated clothing. Clothing should be cut-off rather than pulling the contaminated clothing over the face where contact with the eyes, nose or mouth may occur.

3) If necessary, seek medical attention at the Occupational Health Clinic or by calling 911.

4) Inform your supervisor, complete an incident report form. If necessary, inform EHS.

Ingestion or Inhalation

1) Move to fresh air.

2) If necessary, seek medical attention at the Occupational Health Clinic or by calling 911. The Poison Control Center can be reached at 1-800-222-1222.

3) Do not induce vomiting, unless instructed to by a medical professional.

4) Inform your supervisor, complete an incident report form. If necessary, inform EHS.