

Spill Response Plan

When accidents occur that involve the release of biohazardous agents, the PI should be notified as soon as possible. Trained lab staff working with these agents will be responsible for mitigation. The location safety office is available for assistance and should be contacted as soon as possible (following incident reporting protocols).

Spills of biohazardous materials must be first contained, decontaminated and further cleaned up by staff properly trained and equipped to work with infectious materials. Each lab using biohazardous materials must have appropriate equipment and supplies on hand for managing spills and accidents involving biohazardous materials. Permanent equipment should include a safety shower, eyewash, a hand-washing sink, and disinfection and clean-up supplies. Spill protocols should be posted in areas where agents are handled and a biohazard spill kit should be readily available.

Examples of biohazard spill kit supplies:

- Nitrile or other appropriate disposable gloves
- Waterproof overboots
- Lab coats, disposable gowns, disposable Tyvek-like suits
- Goggles, safety glasses, or disposable face shield
- Disposable shoe covers (booties)
- Absorbent material - paper towels, absorbent pads
- Appropriate disinfectant (should be freshly prepared with available materials on hand)
- Tools to aid in collecting material - tongs, forceps, dustpan
- Biohazard bags and sharps waste containers
- Warning sign to post for restricted entry

Managing a Biohazardous Spill INSIDE a Biosafety Cabinet (BSC)

- a) Keep the BSC running.
- b) Immediately cover with absorbent material.
- c) Soak absorbent material with freshly prepared disinfectant. Work from the outside of the absorbent material to the center. Allow for appropriate contact time.
- d) Remove gloves and other contaminated clothing, according to standard procedures. Place in biohazard bag(s) for autoclaving.
- e) Wash hands and arms thoroughly. Don a new pair of gloves and additional PPE as needed.
- f) After appropriate contact time, collect disinfected materials placed on the spill area in a biohazard bag. If tubes or solid materials are involved, utilize tools such as tongs to pick up those materials. Broken glass and sharps should be placed in a sharps container rather than in a biohazard bag.
- g) Wipe up spill area with disinfectant soaked paper towels.
- h) Wipe down walls, work surfaces, and equipment in BSC with disinfectant.
- i) If leaked through the BSC grille
 - i. wipe down all items within the cabinet and remove,
 - ii. ensure drain valve is closed
 - iii. flood tray top, drain pans, and catch basins with disinfectant

- iv. allow to stand for the appropriate contact time
 - v. lift out tray and remove exhaust grille work
 - vi. clean top and bottom surfaces with sponge/cloth soaked in decontaminating solution
 - vii. replace grille tray and grille work
 - viii. if applicable, drain decontaminating solution from cabinet base into a collection vessel containing additional decontaminating solution.
A flexible tube should be attached to the drain valve and be of sufficient length to allow the open end to be submerged in the disinfectant within the collection vehicle. The drain pan should be flushed with water and drain tube removed.
 - ix. remove gloves and other contaminated clothing, according to standard procedures. Place in biohazard bag for autoclaving.
- j) Place all contaminated materials within a biohazard bag. Autoclave all contaminated material.
 - k) Follow incident reporting protocols for notifying lab supervisor (PI) and the Biosafety Officer.
 - l) For BSL2 labs, work may not resume until the PI or lab supervisor agrees that the cleanup is complete. For BSL3 or select agent labs, work may not resume until PI and BSO/RO have determined the clean up was appropriate.
 - m) Record spill cleanup on the Laboratory Decontamination Log sheet.

Managing a Biohazardous Spill OUTSIDE of a Biological Safety Cabinet (BSC)

- a) Quickly place absorbent pads on the spilled area and carefully saturate the area with liquid disinfectant.
- b) Remove PPE and potentially contaminated clothing, place in biohazard bag and wash any apparently contaminated body parts with soap and water before leaving the laboratory.
- c) Post warning signs and/or a sentry to keep anyone from entering the spill area. Do not allow anyone entry to the area unless cleared to do so by the PI or BSO. Leave the area as necessary and following standard exit protocols.
- d) Report the incident to the lab supervisor, PI or Biosafety Officer as needed.
- e) Allow 20 minutes for any potential aerosols to settle and appropriate contact time for liquid disinfectant to work.
- f) Once any potential aerosol has settled, don appropriate PPE for entry (double gloves are recommended).
- g) Further soak absorbent material with freshly prepared disinfectant. Work from outside the absorbent material to the center being careful to minimize splashing or potential formation of aerosols. Allow for appropriate contact time.
- h) Collect disinfected materials placed on the spill area in a biohazard bag. Utilize tools such as tongs to pick up those materials. Broken glass and sharps should be placed in a sharps container.
- i) Wipe up the general area surrounding the spill with disinfectant soaked paper towels – including walls, work surfaces, and equipment.
- j) Remove gloves and other contaminated clothing, according to standard procedures. Place in biohazard bag for autoclaving. Place all contaminated PPE in biohazard bag and autoclave with all contaminated material.

k) Record spill cleanup on the Laboratory Decontamination Log sheet.