

Biological Safety Cabinet (BSC) Spill – General Clean Up Protocol

Spills in a Biological Safety Cabinet (reference SEM 20.10 – Microbiology Lab Safety)

- a) Assess situation and personal contamination. Ensure risk of injury is controlled prior to initiating spill cleanup.
- b) Remove gloves and discard within the BSC.
- c) If two pairs of gloves are being worn, discard only outermost layer.
- d) Remove any other contaminated and potentially contaminated PPE and clothing.
- e) If sleeves are contaminated, the lab coat or gown should also be removed.
- f) Leave BSC blower on and do not move sash.
- g) Notify all staff in the immediate vicinity of the spill and to leave the area for 30 minutes to allow aerosols to settle, using normal exit procedures.
- h) Exposed persons should wash any potentially exposed skin areas thoroughly with soap and running water and encourage bleeding if exposure involves a sharps injury or puncture and keep washing.
- i) Exposed persons should be referred for immediate medical attention.
- j) Inform the laboratory supervisor or responsible authority immediately.
- k) Post signage forbidding entry to immediate spill area for the settling period.
- l) After 30 minutes has elapsed, don fresh, inspected, risk-appropriate PPE (double glove, closed toed shoes, laboratory coat, and eye protection minimum). LRA will determine if more is needed (e.g. a respirator).
- m) If the spill involves body fluids, blood, or human cells, ensure adequate skin coverage.
- n) Assemble biological spill kit and bring it to the spill site.
- o) Gently cover the spill with paper towel or cloth to contain it.
- p) Gently pour an appropriate disinfectant on the paper towel or cloth, starting at the outer margin of the spill areas and working concentrically towards the center of the spill.
- q) Allow for appropriate contact time.
- r) Replace any PPE that was contaminated by the initial decontamination steps.
- s) After contact time has elapsed, carefully remove the towels/cloth and any debris. If there is broken glass remove using a dustpan and broom, forceps etc.
- t) Clean and disinfect the area. Dispose of the contaminated materials in a leak-proof, puncture resistant waste disposal container. Repeat if necessary.
- u) Remove contaminated PPE and don clean PPE.

- v) After disinfection notify the laboratory supervisor and the BSO that the site has been decontaminated.
- w) Allow BSC to purge for at least 10 minutes before resuming work or shut down.
- x) If the spill has breached through the front or back grills, those will have to be cleaned as well (see instructions on catch basin cleaning below).

Catch Basin Decontamination:

- a) Find a partner to do this.
- b) Identify drain valve.
- c) Close drain port.
- d) Presoak paper towels in an effective decontaminant.
- e) Place a bucket under the drain and attach tubing long enough to reach from the drain to the inside of the bucket.
- f) WITH A PARTNER, lift and prop up the work space securely.
- g) Wet top surface of front grille 3 times with pre-soaked paper towels.
- h) Wet wipe remainder of internal surfaces.
- i) Spray front grille with 70% alcohol, allow 5 minutes for contact time.
- j) If necessary, clean the underside of the work surface with wet paper towels.
- k) Rinse with paper towels soaked in 70% alcohol or sterile water.
- l) Using a flashlight and an extendable mirror (if available), identify “how much” cleaning will have to get done.
- m) Saturate the inside of the catch basin with a misting with a decontaminating agent. Do not let this dry, so keep misting if need be.
- n) Loosen moistened debris with a plastic scraper or other similar implement to avoid damaging the BSC.
- o) Carefully collect debris (if sharps, use forceps).
- p) Flood catch basin with no more liquid than the bucket can hold, then scrub the inside of the catch basin with a brush of some kind (eg. toilet).
- q) Let sit for recommended decontaminant contact time.
- r) If unable to drain, absorb the decontaminant with paper towels, otherwise drain liquid into bucket.
- s) Repeat steps p – u with decontaminant and then with tap water to remove corrosive chemicals.
- t) Mist catch basin with 70% alcohol and allow to dry.
- u) Replace work surface and decontaminate both the work surface and front grille.