CBE GRAD STUDENT FAQ ABOUT SAFETY

(A NON-EXHAUSTIVE LIST)
WHAT IS EXPECTED FROM ME IN THE LAB WITH REGARD TO SAFETY?

• Keep up to date on necessary Safety Training
• Wear appropriate PPE in the laboratory
  (safety glasses, long pants, close toed/heeled shoes at a minimum)
• Know where fire extinguishers, eye wash, safety shower, first aid and spill kits are located
• Know your emergency evacuation plan
• Know how fire alarm and chemical spill alarm sound
• Pick up after yourself!
  ▪ Put chemicals back in designated space, watching for proper chemical segregation
  • EH&S has a nice factsheet that outlines chemical storage guidelines at https://www.ehs.iastate.edu/sites/default/files/uploads/publications/policies/incchemicals.pdf
  ▪ Empty glass waste container into large bin in loading dock when full (Sweeney)
  ▪ Take the garbage out yourself if it is full before biweekly cleaning by custodian in Sweeney
  ▪ Cardboard should be placed in designated dumpsters near loading dock (Sweeney)
• Label and properly cover (could be turned upside down without spilling) containers
  ▪ Sample Labeling details (important for first responders):
    • Labels should be legible
    • Label needs to be on the bottle, not on the cap (Caps can be switched)
    • Labels may contain chemical abbreviations if there is a definition list near the lab entrance
    • Labels should include (From Laboratory Safety Manual):

<table>
<thead>
<tr>
<th>Sample ID (optional)</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical name(s)</td>
<td></td>
</tr>
<tr>
<td>Signal Word (danger, caution, warning)</td>
<td></td>
</tr>
<tr>
<td>Hazard Statement (Flammable, fatal if swallowed, etc)</td>
<td></td>
</tr>
<tr>
<td>Generator’s Initials</td>
<td></td>
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</tbody>
</table>
- If many of these details are the same, consider pre-printing sample labels with the chemical name signal word, hazard
- Follow, create or modify Standard Operating Procedures (SOPs) for the all of the major activities you perform in the lab (see later FAQ Where do I find SOPs? for more detail)
- Know how to safely shutdown experiments in case of an emergency
- Evaluate the hazards of an activity and try to minimize unnecessary dangers
- Report a near miss or injury (see What do I do if I get injured in the lab?)
- Keep Chemical Inventory accurate and up to date (lab safety officer)
- Dispose of unwanted chemicals as Hazardous waste
  - Keep adding information to tag as you add chemicals (omissions can be dangerous)
- Keep Safety in mind
  - Bring up concerns to
    - Supervisor
    - Safety Committee (Chaired by Dr. Loveland, 4-3024, prairie@iastate.edu)
    - or Lab Coordinator (Sarah Beckman, 4-4134, sezb@iastate.edu)
- Lab Safety Officer (designated by PI for each research group) should:
  - Make sure eyewash is flushed monthly
  - Make sure First Aid kit has unexpired supplies
  - Make sure spill kit is replenished if used
  - Keep Chemical Inventory accurate and up to date
  - Prepare lab for inspections
  - Maintain SDS database/binder

HOW DO I TAKE SAFETY TRAINING?

- After you receive your netID, you can go to Learn@ISU
  - Go to https://www.ehs.iastate.edu/, scroll down and click on training
  - Click on Safety training ISU Login (Learn@ISU)
WHAT SAFETY TRAINING DO I NEED TO TAKE?

- If you work in a laboratory, CBE expects you to be up to date on the following:
  - Fire Safety and Extinguisher Training (expires yearly)
  - Laboratory Safety: Core Concepts (expires in 3 years)
  - Laboratory Safety: Compressed Gas Cylinders (expires in 3 years)
  - Laboratory Safety: Chemical Storage (expires in 3 years)
  - Laboratory Safety: Fume Hoods (expires in 3 years)
  - Laboratory Safety: Spill Procedures (expires in 3 years)
- We recommend:
  - Personal Protective Equipment (PPE) (expires in 3 years)
  - Worker Right-to-Know OSHA Hazard Communication Standard Training
- Your PI may assign more training for your specific research requirements such as:
  - Autoclave Safety Training
  - Biological Risk Assessments for Researchers

WHERE DO I GET MY PPE?

- Supervisor may supply, or ask you to purchase:
- Safety glasses may be purchased from Chem Stores or Central Stores
- Lab coats and gloves may be purchased at Chem Stores or through CyBuy (Fisher or VWR)
- See Graduate Handbook for details on how to purchase items at ISU

WHAT’S WITH THAT EMERGENCY ACTION PLAN ON THE DOORS?

- Provides steps to take in a variety of emergencies
- Designed to be torn off the door in an emergency and carried with you to provide contact info.
WHERE DO I FIND SOPs?

- Talk to your Principal Investigator about the location of SOPs
- If you are starting a new process, fill out the CBE Hazard Checklist found on https://www.cbe.iastate.edu/safety/
- Create a new SOP with the template from EH&S or create your own https://www.ehs.iastate.edu/sites/default/files/uploads/forms/soptemplate.pdf
- Or word document at https://www.ehs.iastate.edu/research/laboratory/forms

WHAT DO I DO IF I GET INJURED IN THE LAB?

- Medical Treatment - cost will be covered
  - Life Threatening: Call 911 and request ambulance, notify supervisor as soon as possible
  - Minor injury: Lab First Aid Kit, Report to Supervisor
  - Non-Life Threatening Serious Injury: Report to supervisor
    - Day time: Supervisor should arrange medical care with McFarland Clinic, Occupational Medicine, P.C. 1018 Duff Avenue, Ames, IA (515) 239-4496
    - If supervisor is not the one to call, you may be questioned whether it is really a work related incident when arriving at medical facility
    - After Hours: Mary Greeley Medical Emergency Department (515) 239-2011
      - Notify staff when that injury is due to workplace injury or illness
- Reporting
  - Report (you or supervisor) within 24 hours using ISU incident portal
    - https://www.ehs.iastate.edu/services/occupational/accidents-injuries
• From EH&S main page click “Accidents and Injuries” link
• Click “Report a new Incident”
• Unless this happened while you were in a class, you are classified as an ISU employee
• Click “Report an Injury to an ISU employee”

HOW DO I REPORT A NEAR MISS IN THE LAB?

• A near miss is any serious event in the lab that did not result in injury but could have (i.e. Fire, equipment malfunction, etc.)
• Tell your supervisor
• Report to CBE
  ▪ Fill out the Near Miss form located on the safety tab on CBE webpage [https://www.cbe.iastate.edu/safety/](https://www.cbe.iastate.edu/safety/)
• Report to EH&S
  ▪ Follow same steps for reporting an injury through the ISU Incident Portal
  ▪ Click “report a near miss”
HOW DO I UPDATE THE CHEMICAL INVENTORY?

- If you are listed as an assistant, you may update the chemical inventory by:
  - Going to EH&S webpage and click on “Chemical Inventory”
    https://www.ehs.iastate.edu/research/laboratory/chemical-inventory
  - This will take you to a login
  - Select the lab from the list
  - Download the list to Excel
  - Compare the list to actual inventory
    - Evaluate the amount and condition of the container
    - If container looks damaged or chemical has expired, move to satellite waste and remove from inventory
  - Edit the amounts and location as necessary

HOW DO I GET RID OF HAZARDOUS WASTE?

- Fill out both sides of the orange tag (found at satellite waste accumulation site) and attach to your waste bottle as soon as the first waste is added to container
  - Continue to update waste info as you add chemicals
    - Be accurate, unlisted items can cause problems for EH&S when waste is combined for disposal
- When waste container is full:
  - Go to EH&S webpage and click on “Waste Removal”
    https://www.ehs.iastate.edu/services/waste/wasteremoval
  - Click on “Waste Removal Form”
  - Fill out a Pick Up Request
    - If you need more orange tags click on the Supplies Tab and check the box
WHAT DO WE DO WITH CHEMICALS IN THE LAB THAT WE NO LONGER NEED?

• Tag them as hazardous waste (see above)
• If available, EH &S has had a drive to take unidentified chemicals for free in October.

HOW DO I GET RID OF EXCESS EQUIPMENT?

• Policies found at: https://www.policy.iastate.edu/policy/equipment/disposal/
• Contact Sarah Beckman (sezb@iastate.edu) and fill out form
• Laboratory Equipment should be cleaned and fill out this form: http://www.centralstores.iastate.edu/sites/default/files/uploads/surplus_forms/LEDF.pdf
• Non laboratory equipment (computers, office furniture, etc) fill out: http://www.centralstores.iastate.edu/sites/default/files/uploads/surplus_forms/EPDF.pdf

HOW DO I REPORT A LIGHT OUT, FUME HOOD ALARM, DOOR PROBLEM, OR OTHER FACILITY ISSUE?

• Go to FP&M webpage> Click on “REPORT A PROBLEM” in the menu bar > Fill out Form https://www.fpm.iastate.edu/frontdoor/
• Or email Laboratory Coordinator (Sarah Beckman, sezb@iastate.edu)