Refresher Training

Presented by
Jay Young, College Safety Coordinator
Agenda

This presentation will highlight reminders for laboratory workers/students at the University of Kentucky. The following is covered in this presentation:

1. Training Requirements of TAs and ULAs
2. Refresher of the Laboratory Standard
3. Laboratory Attire
4. Building Emergency Action Plans
   1. Chem-Phys
   2. JSB
Required Training

All Laboratory Personnel are required to take safety training before beginning work at UK.

<table>
<thead>
<tr>
<th>Training Class</th>
<th>Frequency</th>
<th>Training Provided By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Hygiene Plan/Laboratory Safety</td>
<td>Initially</td>
<td>Occupational Health and Safety (online or in-person)</td>
</tr>
<tr>
<td>Chemical Hygiene Plan Annual Refresher</td>
<td>Annually after initial training</td>
<td>Occupational Health and Safety (online or in-person)</td>
</tr>
<tr>
<td>Hazardous Waste</td>
<td>Annually</td>
<td>Environmental Management (online)</td>
</tr>
<tr>
<td>Fire Extinguisher Training</td>
<td>Annually</td>
<td>Fire Marshal (online or in-person)</td>
</tr>
<tr>
<td>Fume Hood</td>
<td>One time</td>
<td>Occupational Health and Safety (online)</td>
</tr>
</tbody>
</table>
Required Training

Laboratory personnel may be required to take additional training for work with biological or radiological agents.

The Laboratory Safety Training Checklist will assist in deciding what classes are needed.

Please visit EHS Safety Training for a list of all our online classes.

For Lab Specific Training, EHS has provided a checklist that can be used to help with training.
The Chemical Hygiene Plan is part of the University’s compliance with the regulations promulgated on January 31, 1990 by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA).

The Standard is entitled, “Occupational Exposures to Hazardous Chemicals in the Laboratories”. Known as the Lab Standard.
Lab Standard Overview

- All laboratory personnel working in the lab are covered by the Standard.
- The lab standard is updated by the lab supervisor.
- All laboratory training must be done prior to employees working in the laboratory. Training must be provided by the Principal Investigator (PI) or supervisor of the laboratory.
- An assessment for the appropriate personal protective equipment (PPE) must be done for the hazards (physical and chemical) in the laboratory.
Personal Protective Equipment (PPE)
OSHA requires the use of personal protective equipment (PPE) to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective in reducing exposures to acceptable levels.

To determine what PPE is needed in the lab, a hazard assessment is required. This will identify the specific hazards of concern either by work area, job or task and the PPE required for the protection of those hazards.
Basic Laboratory Attire

The street clothes that a laboratory person wears, is just as important as the PPE donned in the laboratory.

When entering a lab, the following requirements should be met.

- Confine loose clothes and long hair
- Legs must be covered at least to ankle length
  - Nylons hoses and tights are not appropriate attire
  - Skirts can be worn but must be ankle length
- Entire foot must be covered; no open toed shoes
  - Socks need to cover foot if shoes and pants do not cover entire foot
Minimum Laboratory Attire

At a minimum to enter the lab, eye protection must be worn. This includes all laboratory personnel (students, TAs, ULAs, etc.) as well as visitors.

Gloves must be left in the laboratories and not worn in public areas (e.g. hallways, restrooms, etc.)
Eye Protection

Eye protection is required when entering a laboratory.

- Safety goggles are needed with the use of corrosive chemicals, strong oxidizing agents, carcinogens, mutagens, etc.
- Only use goggles approved by Chemistry Dept.
Gloves are used to prevent hand contamination. If a glove becomes contaminated it should be taken off and thrown away.

Always wash hands when leaving for breaks and at the end of the day.

Gloves shall not be worn in halls or public areas.

Samples should be carried in a secondary container through a hallway and not with gloved hands.

Disposable gloves are meant to be thrown away. Do not reuse disposable gloves.

Gloves will have limitations. Different materials of gloves will be needed depending on the task and chemical used.

Be aware, that some employees and/or students will be allergic to latex gloves.
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Glove</th>
<th>Examples/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Research Work</td>
<td>Disposable gloves</td>
<td>Light latex, vinyl or nitrile gloves</td>
</tr>
<tr>
<td>Chemical low hazard (small drips on test tube)</td>
<td>Disposable</td>
<td>Nitrile gloves are resistant to a broad range of chemicals and is more puncture proof and abrasion resistant than natural rubber or vinyl disposable gloves. It is the glove of choice for low level chemical contamination.</td>
</tr>
<tr>
<td>Chemical High Hazard (pouring acids, work with toxic chemicals)</td>
<td>Chemical resistant glove</td>
<td>Nitrile, Butyl, Viton and Silver Shields</td>
</tr>
<tr>
<td>Cryogens</td>
<td>Cryogenic Gloves</td>
<td>Cryogenic gloves are insulated gloves to prevent burns from extreme cold temperatures when handling cryogens. It is recommend cryogen gloves with mid-arm or longer protection be selected for transfer of cryogenic liquids.</td>
</tr>
</tbody>
</table>
Building Emergency Action Plan

- BEAP
- Events
  - Fire
  - Severe Weather
  - Chemical Spill/Release
  - Utility Outages
Emergency Exits

First floor

FIRST FLOOR PLAN
CHEMISTRY PHYSICS BUILDING
Evacuation Gathering Area

- Location for all building occupants to gather when building is evacuated
- Communication focal point
Severe Weather Shelter

An underground area, such as a basement, provides the best protection from a tornado. If sheltering underground is not possible, consider the following:

- Seek a small interior room or hallway on the lowest floor possible
- Stay away from doors, windows, and outside walls
- Stay in the center of the room, and avoid corners because they attract debris
- Rooms constructed with reinforced concrete, brick or block with no windows and a heavy concrete floor or roof system overhead
- Avoid auditoriums, cafeterias and gymnasiums that have flay, wide-span roofs
Suggested Shelters

Basement
Suggested Shelters

First floor

FIRST FLOOR PLAN
CHEMISTRY PHYSICS BUILDING
Suggested Shelters

Second floor

SECOND FLOOR PLAN
CHEMISTRY PHYSICS BUILDING