

Training Topic of the Month:

All new laboratory employees must receive Laboratory Safety training from EH&S as a requirement of the OSHA Laboratory Standard. While there is no OSHA requirement for refresher training in lab safety, we feel that regular review of lab safety topics is essential to a safe work place. Monthly reading of this newsletter will provide such a review. This month's topic is "Physical Hazards".

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Electrical Hazards

1. Learn where power shut-offs are in your laboratory, should it be necessary to use them in an emergency. Keep them unblocked at all times.



2. Repair or replace all worn electrical cords or any un-insulated or exposed wiring. FMS can do this under the work order system.

3. Do not use extension cords for permanent installations in the laboratory; do not overload individual outlets with more cords or plugs than they are designed for.
4. Do not use electrical outlets in the vicinity (within six feet) of a water source unless they are equipped with ground fault circuit interrupters (GFCIs).

Tripping Hazards (and related issues)

1. Do not string cords across floors without taping them *securely* down or using a "walkover" strip on top of them. Contact EH&S if you need a "walkover" strip (or don't know what one is!)
2. Do not store boxes, equipment or chemicals in front of storage cabinets or sinks, or in walkways.

3. Take care when attaching tubing to glassware, to ensure that people passing cannot accidentally pull off a piece of tubing as they go by. You may lose your experiment as well as the glassware.

Compressed Gases

1. Only move compressed gas cylinders with proper dollies and carts. Do not "roll" them!
2. Ensure that oxygen and oxidizers are separated from any flammable gas by a firewall or by 20 feet of space. (Contact EH&S about a suitable firewall.)
3. Ensure that all *stored* cylinders have their protective caps securely placed on the top valve.
4. Ensure that ALL cylinders (stored or in use) are strapped or chained *to a solid surface* so that they cannot tip over.

Cryogenic Hazards

1. Be sure to use gloves when handling these materials to avoid freezing your hands. Also use protective eyewear and/or coat if your use of cryogenics may produce splashing of the material.

Be sure that the container you use to store or transfer a cryogenic material is properly labeled with the container contents and the warning "Caution--Cryogenic Material."

Laboratory Safety and Hazardous Waste Training

January 14, 2009

9:30 AM to Noon

Mellon 328

January 28, 2009

9:30 AM to Noon

HbH 1003

To register, go to: http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Training/ClassDescriptons/training_laboratory_safety.htm

Prepare Your Lab for the Break

Later this month, most of us will be taking a well-deserved break from our lab activities. To help prevent accidents and problems from occurring while you are away, please do the following before you go away:

1. Ensure that all experiments have been properly stopped and shut down. **For any processes that MUST continue while you are away, please inform Mark Banister (8-1493) or Jeff Harris (8-7501) of the activity.**
2. Perform a walkthrough of your labs to ensure that all containers, including hazardous waste containers, are tightly closed and sealed. Check the materials in your storage cabinets as well.
3. Pull down your fume hood sash to about an inch from the bottom. This will help save energy and also retain hazardous materials

fumes should there be bottle or container break in your hood.

Find out if anyone will be **working alone** with hazardous materials in the lab during the break. If this is so, be sure that there is a plan to provide help should any accident or injury occur.

Enjoy your holiday!



Environmental Subject of the Month:

Waste Minimization

A very important portion of our hazardous waste program is the Waste Minimization Plan—our process for reducing both the quantity and the hazards associated with the waste we generate from our laboratories. These guidelines will help in this effort. Please incorporate them in your lab operations whenever possible:

- Micro-scale experiments whenever possible, to reduce the amount of hazardous materials used
- Substitute less hazardous materials for more hazardous ones, such as biodegradable cleaner for solvents, non-chlorinated solvents for chlorinated ones, No-Chromix for chromic acid)
- Include bench-top neutralization as part of experimental protocol
- Consider recycling, re-use or reclamation of hazardous materials as part of your work. For example used solvents may still be appropriate for glassware cleaning.
- Eliminate the use of heavy metals, especially mercury, whenever possible.

Hazardous Waste Pick-up Schedule

Mellon Institute	Dec 2, 16, Jan 6, 20	9:30 AM to 11:30 AM
Wean and Doherty Halls	Dec 2, 16, Jan 6, 20	12:30 PM to 3:30 PM
All other main campus locations	Dec 3, Jan 7	9:30 AM to 11:30 AM
PTC	Dec 3, Jan 7	12:30 PM to 3:30 PM
Penn Ave., Robotics Consortium	January 21	
Computers	Dec 4, 8, Jan 5, 8	

To request a waste pick-up or receive waste labels or tags, go to:

http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Waste_Recycling/HazardousWaste.htm