Laboratories Health, Safety and the Environment

A Monthly Newsletter from Carnegie Mellon's Chemical Hygiene Officer | February 2009

Training Topic of the Month:

All new laboratory employees must received 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 **"Compressed Gas Storage and Use"**.

Compressed Gases

1. Compressed gas cylinders shall be stored and secured in an upright position.
2. In areas of gas cylinder storage, cylinders shall be segregated according to their hazard properties. When more than one cylinder is stored together, cylinders shall be kept tightly nested and secured with straps or chains.
3. On cylinders not equipped with a valve shutoff, a wrench shall be provided and kept on the valve at all times to permit rapid emergency shutoff.
4. Cylinders shall be stored with the protective valve cap in place. No cylinder may be *stored* with the regulator still installed.
5. Cylinders of compressed gases should be securely strapped or chained to a wall or bench top.
6. Close the gas cylinder at the top of the tank when not in use—do not rely on the regulator for this purpose.
7. All compressed gas cylinders and chemical containers should be stored away from heat sources and direct sunlight.
8. Only use regulators and equipment (especially with regard to materials to be used for lines and fittings) approved for the gas being handled.
9. Cylinder handling will be performed using equipment appropriate for the task, i.e., cylinder hand carts.
10. Wherever toxic gases are present, special precautions are needed to ensure safe usage. This may include detection and alarms, and gas cabinets with fire protection. Typical toxic gases include carbon monoxide, hydrogen sulfide, ammonia and silanes.
11. Wherever hydrogen is present, all tubing must be of braided stainless steel hose. Alternative tubing materials will be approved by EH&S on a case by case basis, to ensure that the alternative meets fire protection requirements.
12. Always use caution when placing any compressed gas cylinder in an enclosed area. A leak of even an inert gas can quickly displace sufficient oxygen to cause suffocation of a person within that area!

DEP Inspection

Those of you who have been here awhile know that EH&S has been preaching for a long time of the importance of proper accumulation of hazardous waste in laboratories, should there be a regulatory inspection. Well, we had a limited inspection of Mellon Institute by the PA Department of Environmental Protection on January 26th. Everything went well and the inspector was duly impressed with our activities. It is still very important that you follow the waste accumulation guidelines we provide in training, in the event of another visit, 'cause you never know when they will be back!

Laboratory Safety and Hazardous Waste Training					
February 11, 2009	9:30 AM to Noon	MI 328	February 27, 2009	9:30 AM to Noon	UC Rangos I
March 18, 2009	9:30 AM to Noon	MI 328	March 27, 2009	9:30 AM to Noon	UC Rangos II
To register, go to http://www.cmu.edu/ehs/training/index.html and click on "Lab Safety and Hazardous Waste.					

Environmental Subject of the Month: Sink Disposal

Especially with incoming personnel, there are often questions regarding what sorts of materials may be disposed of in the lab drain and which are prohibited. Here is a summary of our requirements:

First of all, no Hazardous Wastes—no flammables, acids or bases, corrosives, reactives, poisons, or heavy metals. De minimus levels of very dilute acids are acceptable, provided that copious amounts of water are used for flushing immediately after. Also, nothing malodorous (our biggest problem!), nothing lachrymatory (causing tears) or irritating, and nothing that might obstruct the system or cause biological materials used for treatment in the county sanitary system to die.

Well, that pretty much leaves water.

All the better; we would rather collect your waste and dispose of it properly than to deal afterward with a possible environmental problem. If you have any questions as to whether a particular waste can be disposed of in the drain, please contact EH&S at 8-8182.

By the way, did you know that we do NOT have any waste water treatment processes here on campus? Many people think we have operating acid/base neutralizing systems for our drains, but we do not!

Breaking News! EH&S has new Web Site!

Well, maybe it's not breaking news, but Environmental Health and Safety has a brand new web page. Check us out at www.cmu.edu/ehs. You will see a brand new format and a layout that we hope you will find easier to navigate and find what you need. For the most common tasks you may use the site for, such as placing a request for waste pick-up or entering the Chemtracker inventory program, you will find easy links on the appropriate page. The only down side is that some of your bookmarks may have changed. Please be patient with this during the phase in of the site. Also, please let me know what you think of it. But please DON'T go looking for my picture under the EH&S staff page. I am really much better looking in real life!

Moving Chemicals in Chemtracker

One of the things people often neglect to do when moving chemicals is to update their inventory in Chemtracker to reflect the changes. Since we use the Chemtracker inventory to evaluate building code compliance as well as for emergency response purposes, it is critical that updates to the inventory be made after all chemical moves. If you have a great many inventoried items to change, contact Michael Fouch, Jeff Harris or Mark Banister of EH&S (8-8182). There are ways we can quickly move large numbers of containers "en masse" so that you do not have to make tedious, individual moves in the inventory system.

Hazardous Waste Pick-up Schedule		
Mellon Institute	**Feb 3&17, Mar 3,17&31**	**9:30 AM to 11:30 AM**
Wean and Doherty Halls	**Feb 3&17, Mar 3,17&31**	**12:30 PM to 3:30 PM**
All other main campus locations	**Feb 4, Mar 4**	**9:30 AM to 11:30 AM**
PTC	**Feb 4, Mar 4**	**12:30 PM to 3:30 PM**
Penn Ave., Robotics Consortium	**Apr 29**	
Computers	**Feb 5, 9, Mar 5, 9**	
To request a waste pick-up or receive waste labels, secondary containment or tags, go to: http://www.cmu.edu/ehs/chemical/waste/index.html		