

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 "**Particularly Hazardous Substances**".

Among the most common areas of deficiency found in the EH&S laboratory inspections are those items associated with the use of Particularly Hazardous Substances (PHS). The OSHA Laboratory Safety Standard requires that special attention be given to workers who use PHSs. They are defined by OSHA as:

- **"Select" carcinogens: materials with STRONG evidence of carcinogenicity**, like chloroform, chromic acid, benzene, formaldehyde, methylene chloride
- **Materials of high acute toxicity**, like cyanide or hydrofluoric acid
- **Reproductive hazards, mutagens or teratogens**, like lead or ethidium bromide
- **Explosive or highly reactive materials**, like sodium azide, picric acid or ethyl ether.
- **Unknowns similar to the above items**

The following steps **must** be taken for the proper handling of PHS; they are part of our Chemical Hygiene Plan, as implemented by the Laboratory Safety Committee **and are enforceable by OSHA**.

1. Identify all PHS materials in your area. There is a fairly comprehensive list of PHS items on the EH&S web site which should help you out. Check out <http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/pdf/cmuphstable.pdf>

2. For each PHS in use, the laboratory must prepare a Standard Operating Procedure (SOP), outlining in detail the way the lab will use the PHS material. The procedure will include the following items:

- Identifying health hazard information
- Outlining storage and handling information
- Identifying protective equipment and engineering controls
- Specifying a designated area for the use of the material
- Describing the decontamination and waste management aspects of the material's use
- Identifying the steps to be taken in the event of an emergency (first aid, fire, spill)

The format for the SOP has been prepared by the Laboratory Safety Committee and is available at <http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/LaboratorySafety/PHSformblank.xls> Contact me if you have any questions about procedure preparation.

3. Finally, each person using the PHS must be approved by the laboratory PI to do so, and must read the SOP and sign off on its requirements.

We ask that all laboratories send EH&S a copy of the final procedure and also to make it available in the laboratory for reference by lab personnel and EH&S.

Laboratory Safety and Hazardous Waste Training

September 4, 2008	9:30 AM to Noon	See update on web	September 19, 2008	9:30 AM to Noon	MI 328
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To register, go to: http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Training/ClassDescriptons/training_laboratory_safety.htm

Environmental Topic of the Month: Hazardous Waste Disposal

In last month's newsletter, we talked about the requirements for laboratory accumulation of hazardous wastes. This month, we will talk about the process to have the materials removed from the lab and their ultimate disposal.

Here is the procedure to request a waste pick-up:

Go to the EH&S web site: <http://ehs-alert.fms.bap.cmu.edu/> and select "hazardous waste chemical" from the "quick-link" menu. After you log in, you will see the requirements for pick-up along with a link to the schedule and request form. Select the Request form and follow the instructions. You will need

to identify in general terms the amount and type of waste you have. This allows us to be sure we have the personnel and equipment necessary for transporting your waste.

When the wastes are picked up, they are taken to one of two "accumulation areas" on campus where they are segregated by compatibility and held until the contractor removes them from campus. We currently can hold materials up to 180 days before we MUST transport them from campus, though most go much sooner than that; we typically have a shipment from campus once per month.

Many people are interested in where their waste ends up:

Organic solvents and oil usually go for "fuels blending", which means that they will be used with other fuels for processes like cement kilns and steel production. These solvents are carefully integrated into the fuels stream to prevent non-compliance with the processes' air emissions requirements. Certain organic materials can also be distilled to provide commercial product for another use.

Acidic and basic wastes (barring other hazards present) are used in neutralization processes, often rendering other hazardous waste streams non-hazardous. Other wet wastes may be filtered, precipitated or otherwise treated to allow water to go back to the environment and solids to be recycled or land filled as non-hazardous material.

Metal wastes are generally sent for recycling activity, so that the spent metallic element can have a future re-use.

It is the University's goal to have as little material as possible go into landfills, and we are pretty good at accomplishing this.

Hazardous Waste Pick-up Schedule

Mellon Institute	Sep 9,23 & Oct 7,21	9:30 AM to 11:30 AM
Wean and Doherty Halls	Sep 9,23 & Oct 7,21	12:30 PM to 3:30 PM
All other main campus locations	Sep 10 & Oct 8	9:30 AM to 11:30 AM
PTC	Sep 10 & Oct 8	12:30 PM to 3:30 PM
Penn Ave., Robotics Consortium	November 19	
Computers	Sep 4 & Oct 2	

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

SPECIAL NOTE:

For those of you with **household** hazardous waste AND/OR **personal** hard to recycle appliances, tires or electronics, there will be pick-ups for both groups of items later this month. The Hard-to-Recycle items will be collected September 20th at the North Park Pool Parking Lot between 10AM and 2 PM. Household Hazardous Waste will be picked up on September 27th at Station Square. Both events will require a nominal payment to support the program. For further information on both events, please check out this web site <http://www.prc.org/>