

# Laboratories

## Health, Safety and the Environment

A Monthly Newsletter from Carnegie Mellon's Chemical Hygiene Officer

July 2008

### *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 "**Personal Protective Equipment**".

Because of the many different types of hazards present in the laboratory, there are many different types of personal protective equipment that may be necessary for you to use. ***It is important for you to know that it is a requirement of the Occupational Safety and Health Administration (OSHA) that the employer (Carnegie Mellon University) must provide appropriate protective equipment to all employees working with hazardous materials.***

Surprisingly, the first thing I want you to remember is something that I DON'T want you to wear, and that is a respirator. When lab workers properly follow the chemical handling and use procedures taught in our training classes and when appropriate protective equipment and fume hoods are used, there will be *no need to wear a respirator*. People who wear respirators must receive regular training and medical evaluations. This is a great deal of additional work both for us and for you, so, since they are not needed, we do not permit their use in the labs. You CAN wear disposable paper face masks for your own comfort when in the lab, though you need to know that they are not suitable protection from most chemical **OVER** exposures. If you believe that you have a special situation that mandates the use of a respirator, please contact Mark Banister at [markb2@andrew.cmu.edu](mailto:markb2@andrew.cmu.edu) or Andrew Lawson at [alawson@andrew.cmu.edu](mailto:alawson@andrew.cmu.edu).

Gloves are another critical item of personal protection. The important things to know about them is that you must always use a proper glove if

you are handling a hazardous chemical or if a splash of chemical to your hands is a possibility. When selecting a glove, be sure to get one that fits your hands properly, so that it will be comfortable to use. Also, be sure that the glove material is approved for the chemical that you will be working with. There is no universal glove material that will work on all chemicals—you need to investigate the gloves available to ensure that you have one rated for your chemical. This is best determined by using the glove compatibility charts available in the catalogs where gloves are sold. EH&S can help you with glove selection, if you need.

Eye protection is very important as well. The important thing with eye protection is that you be sure to wear protective *goggles* and not just glasses. Goggles are necessary to prevent splashed materials from running down your face into your eye, as would happen if only glasses were worn. Goggles are needed for all work where there is a possibility of a hazardous chemicals splashing into your eyes.

Personal protection items are needed for other lab hazards as well. For example, protective eyewear is needed for laser use. Choosing proper laser glasses is extremely important and rather difficult. The eyewear is very specific to the wavelength of the beam as well as its intensity. For the most part, laser eyewear **MUST** be purchased for the specific use and are seldom interchangeable between different laser units. Contact EH&S at 8-8182 for assistance in selecting proper laser eyewear.

### **Laboratory Safety and Hazardous Waste Training**

July 10, 2008

9:30 AM to Noon

MI 348

July 24, 2008

9:30 AM to Noon

MI 320

To register, go to: [http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Training/ClassDescriptons/training\\_laboratory\\_safety.htm](http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Training/ClassDescriptons/training_laboratory_safety.htm)

## *Shipping Dangerous Goods* *Guest author: Jeff Harris*

If you ship items that contain dangerous goods, did you know there are regulations that apply to the paperwork and packaging? Environmental Health & Safety has a program to assist you with this process of sending and, on certain occasions, receiving dangerous goods. The first step is to identify whether your material/item is considered a Dangerous Good. If it is, then the second step is to have it properly packaged for shipment. The final step is to complete shipping papers that comply with the rules for shipping that specific item to its final destination. Our program can be found on our website ([www.cmu.edu/ehs](http://www.cmu.edu/ehs)) under **Chemical Safety** – Shipping of Dangerous Goods. So what are some common items that require special packaging and paperwork?

Here are a few:

- Items packed in dry ice
- Chemical & Biological Samples
- Equipment containing a radioactive sealed source
- Gas Cylinders
- Batteries
- Magnetized Metals and other Polymeric Beads

If you need assistance, please visit our website and feel free to submit an Online Request for Review. Better to get it right than wrong, so let us help.

## *Laboratory Safety Committee*

All lab personnel should be aware of the Carnegie Mellon University Laboratory Safety Committee. The committee consists of representative of each university department that has laboratories, along with members of EH&S. It meets five times per year and acts as a conduit of information between EH&S and lab personnel. Your department representatives bring any lab issues you may have to the attention of the committee, and also keeps you apprised of EH&S and university activities related to laboratory safety.

Here are the people on the Laboratory Safety Committee:

Banister, Mark	<i>EH&amp;S</i>	Horwitz, Colin	<i>Chemistry</i>	Patrick, Michael	<i>MBIC</i>
Borysenko, Chris	<i>MCS</i>	Klim, Steve	<i>Mech. Eng</i>	Pekkan, Kerem	<i>Biomedical Engineering</i>
Bowman, Chris	<i>ECE</i>	Lowry, Greg	<i>CEE</i>	Ripper, Ron	<i>CEE</i>
Doonan, Carrie	<i>Biol. Sciences</i>	Luokkala, Barry	<i>Physics</i>	Sides, Paul	<i>Chemical Engineering</i>
Fouch, Michael	<i>EH&amp;S</i>	Miller, Herb	<i>Grad Student Rep.</i>	Stump, Karen	<i>Chemistry</i>
Hackney, Dave	<i>Biol. Sciences</i>	Miller, Madelyn	<i>EH&amp;S</i>	Wolf, Jason	<i>MSE</i>
Harris, Jeff	<i>EH&amp;S</i>				

### **Hazardous Waste Pick-up Schedule**

<b>Mellon Institute</b>	July 1,15,29 & Aug 12,26	9:30 AM to 11:30 AM
<b>Wean and Doherty Halls</b>	July 1,15,29 & Aug 12,26	12:30 PM to 3:30 PM
<b>All other main campus locations</b>	July 2, Aug 13	9:30 AM to 11:30 AM
<b>PTC</b>	July 2, Aug 13	12:30 PM to 3:30 PM
<b>Penn Ave., Robotics Consortium</b>	August 27	
<b>Computers</b>	July 3, Aug 7	
To request a waste pick-up or receive waste labels or tags, go to: <a href="http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Waste_Recycling/HazardousWaste.htm">http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/Waste_Recycling/HazardousWaste.htm</a>		