

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 "Hoods and Ventilation".

Laboratory fume hoods and related ventilation devices (such as glove boxes) are recognized by OSHA to be the **primary, preferred** means of preventing chemical overexposure in laboratories. As a result, proper use and maintenance of fume hoods is essential to a safe laboratory. Users of fume hoods should follow these guidelines:

1. **Always be sure that your fume hood is working properly before using it.** Many fume hoods have hood alarms that indicate proper operation of the hood. If you do not have a monitor on your fume hood, simply attaching a kim-wipe or similar piece of paper to the edge of the sash can indicate whether there is airflow into the hood. **NEVER** use a hood that has been "red-tagged" by EH&S (this tag appears to the side of a hood that is **out of performance specifications**; a green tag indicates suitable performance.) **If your hood does NOT currently have a hood monitor in it, please respond back to me at markb2@andrew.cmu.edu with the location(s). We want to get one installed as soon as possible.**
2. EH&S tests all fume hoods at least annually. When this is done, we will place a sticker at the side of the hood at the point where the sash should be at its highest point, when you are not actually working in the hood. A **GREEN** sticker means the flow and capture properties are acceptable. If there is a **RED** tag, a work order to FMS will have been initiated to have the hood repaired. When the repair is complete, we will retest and, hopefully, you will then have a working hood with a **GREEN** tag.
3. Minimize the storage of chemicals and equipment in a fume hood. When hoods are overcrowded, the airflow is impeded which may result in turbulent airflow and chemical exposures outside of the hood.
4. **NEVER** modify a fume hood, such as by blocking airflow or removing the airfoil from the front edge of the hood. Hoods are specially designed to work in a certain way--to make changes may negate their effectiveness and also affect the performance of hoods in nearby labs.
5. Always work at least six inches inside of the front edge of the hood to allow the air flow to perform its function properly. While you work, always lower the sash as far as you can.
6. Be sure that you do not use perchloric acid in a hood that is not designed for this purpose. Perchloric acid use may create a build-up of explosive perchlorates in a hood, with possibly disastrous results. Perchloric acid hoods have a special "wash-down" feature that eliminates the hazardous accumulations of perchlorates. Our only Perchloric acid hood is in Roberts Hall. Contact EH&S if you feel an exception should be made to this rule.
7. Remember that many of our fumes hoods have asbestos cement board for their interior surfaces. This material appears as a very hard, gray, cement-like surface. When the material is in place and intact, there is no asbestos hazard. It is important, though, never to cut, drill or otherwise disturb this material to prevent a hazard from occurring.
8. Remember that you should **NOT** leave experiments in fume hoods unattended

Laboratory Safety and Hazardous Waste Training

March 13, 2008

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

overnight or for longer periods. If the hood fails (as happens all-too-frequently) or if the power goes out (even more frequently) there could be a very serious build up of hazardous (or even deadly) fumes or gases.

9. When your hood alarm sounds, you **MUST** do the following:

- **STOP ALL ACTIVITY IN THE FUME HOOD.**
- Pull the sash all the way down.
- Notify FMS of the problem and your location.
- THEN, you may silence the alarm.

Lab Inspection Results Now Online

This January, improvements have been made to the EH&S website to allow Principal Investigators and Primary Lab Safety Contacts the ability to view their lab inspection results online. An email was sent out in mid January with the instructions on how to view your lab inspections. You will be able to view lab inspections from prior years as well. In addition to lab inspections, Principal Investigators

will be able to view and make changes to their current list of lab employees, ensuring that everyone has had the required training. If you have any questions regarding these improvements please contact lab auditor Michael Fouch at mfouch@andrew.cmu.edu or call at 268-3221.

Visitors in Laboratories

Your University Laboratory Safety Committee recently adopted some guidelines and requirements for proper protocol for visitors in the laboratory. The criteria are different depending on whether the person is a short term, fully-escorted visitor or a non-Carnegie Mellon person working in our spaces. Here is the relevant portion of our recently updated Chemical Hygiene Plan reflecting this information. For more information, go to <http://ehs-alert.fms.bap.cmu.edu/EHSWebSite/pdf/CHPFinal.pdf>

Volunteers in the laboratory

Volunteer workers in the laboratory (who are NOT Carnegie Mellon employees nor students) are NOT permitted. This includes (but is not limited to) children of any age or spouses of employees. Exceptions will be considered on a case by case basis by EH&S.

Non-Carnegie Mellon Persons working in Carnegie Mellon Labs

A formal relationship with the outside personnel must be established in such cases. The employer of this outside worker must have a current agreement with Carnegie Mellon addressing the issues of the liability of the worker while at our site. This addresses both outside researchers using Carnegie Mellon facilities as well as repair or maintenance personnel in our laboratories. **The lab or department is responsible to ensure that such an agreement is in place.** Where joint funding situations exist, University counsel will need to evaluate the situation. *Unaccompanied* visitors to the laboratories are not permitted (such as sales reps).

Hazardous Waste Pick-up Schedule

Mellon Institute	Mar 11&25, April 8&22	9:30 AM to 11:30 AM
Wean and Doherty Halls	Mar 11&25, April 8&22	12:30 PM to 3:30 PM
All other main campus locations	Mar 12, April 9	9:30 AM to 11:30 AM
PTC	Mar 12, April 9	12:30 PM to 3:30 PM
Penn Ave., Robotics Consortium	May 21	
Computers	Mar 6, April 3	

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