
ENVIRONMENTAL HEALTH AND SAFETY

Holiday Preparations Include EPA Inspection

Just as many of you were preparing for departmental holiday parties, enforcement personnel from the U.S. Environmental Protection Agency (EPA) and the Tennessee Department of Environment and Conservation (TDEC) Division of Solid Waste Management inspected hazardous waste generation sites in the Life Sciences Building and J. M. Smith Hall.

Every laboratory with hazardous chemicals was included in this unannounced inspection. In addition to looking at laboratories, inspectors checked records dating back to 1997. Training records for personnel in MMCS and Chemistry were examined as were contingency plans, waste reduction plans, manifests, land disposal restriction forms, etc.

TDEC and the EPA should issue their report in February. Following receipt of the report, the University will be required to respond to and correct any regulatory violations that are cited.

If you ever wondered why EH&S personnel hound you to do certain things associated with regulatory compliance, this inspection is one of the reasons.

The University of Hawaii recently agreed to a \$1.7 million settlement for violations of hazardous waste regulations.

Significance of the EPA/TDEC Inspection

The U.S. Department of Justice recently announced a \$1.7 million settlement with the University of Hawaii for violations of hazardous waste regulations under provisions of the Resource Conservation and Recovery Act (RCRA). The EPA has proposed fines up to \$500,000 against Brown University for violations of environmental regulations under RCRA and the Clean Water Act (CWA).

Several universities (e.g., Yale, U. of New Hampshire, Boston U.) have agreed to civil penalties in the hundreds of thousand of dollars for violations of RCRA, CWA, and the Clean Air Act (CAA). Even more have been fined tens of thousands of dollars. Even worse, some scientists in the private sector have actually been indicted by a federal grand jury due to improper treatment and storage of hazardous wastes.

Based on our observations of the recent inspection at The U of M, we expect that folks in Life Sciences and J. M. Smith Hall will look pretty good when compared to some of the universities cited above. However, it is extremely important that everyone do their part to comply with environmental regulations.

Whether you are a faculty member, a GA supervising a lab, a student, a custodian, a boiler operator, ad infinitum, you have an important part to play in this serious business of environmental protection and regulatory compliance.

Are you doing your part to protect the environment, protect facilities and personnel, and comply with regulations? Contact EH&S for guidance.

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Can You Deal with HF Burns?

Hydrofluoric acid (HF) is a different breed of cat where corrosives are concerned. If your lab uses HF, it makes great sense to study the proper first aid procedures before they are needed. So, here are some generic suggestions for responding to skin contact accidents:

- Immediately begin rinsing with water and remove contaminated clothing;
- Alert first aid or medical personnel;
- Immediately after washing (time may be limited to 5 minutes if these treatments are available), begin one of the following first aid treatments:
Soak affected area in cool 0.13% benzalkonium chloride solution (don't use in or near the eye), or massage 2.5% calcium gluconate gel into the burn site, applying gel every 15 minutes until medical treatment is rendered.
- Check for additional burns and get medical attention (take the MSDS with you!)

Remember that these generic recommendations will not be appropriate for all incidents. AlliedSignal publishes "Recommended Medical Treatment for Hydrofluoric Acid Exposure" as a handy reference guide. It is available from AlliedSignal, Inc., HF Products, P. O. Box 1053, Morristown, NJ 07962-1053, 800-522-8001.

Be prepared for HF injuries before they occur!

Did You Know?

Did you know that the *Laboratory Chemical Hygiene Program* (a.k.a. Chemical Hygiene Plan) includes standard operating procedures covering work practices and chemical handling? It does.

Since the CHP is an official University operating procedure, failure to follow its mandates can lead to enforcement actions by the Tennessee Department of Labor or U.S. Occupational Safety and Health Administration (OSHA).

Are you following the Chemical Hygiene Plan?

Radiation Training Coming Soon

Students and employees intending to use radioisotopes or x-ray producing devices this semester, and who have not received authorization from the Radiation Safety Officer, should call 4672 to arrange for training. Those who complete training and pass the written test will receive authorization to work with ionizing radiation.

West Point Cited for Willful Safety Violations

The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) cited West Point Military Academy for alleged serious and willful violations of OSHA standards.

Several of the violations alleged that civilian/military employees and cadets occupied a building with no functioning fire alarms, no emergency evacuation plan, and no instructions on how to conduct a fire drill. Had these violations been associated with a non-federal facility, the proposed penalties would have been in the neighborhood of \$150,000.

Flush your emergency eye wash unit every week to minimize any contaminants!

Are your Inventories Up-to-date?

As several laboratories were decommissioned last year, we noted a disturbing trend: Some of the laboratories contained chemicals that were not included on inventories. Most of those unreported chemicals had obviously been in the labs for several years, a situation that could have resulted in unnecessary risks to personnel and facilities, plus excessive disposal costs.

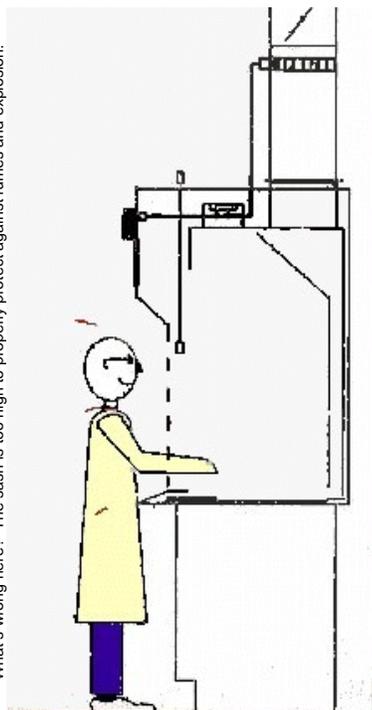
Since inventories are important legal documents that can help (or hurt) you and the University, it is extremely important that you keep the information up-to-date. Information from inventories is used to placard laboratories and buildings for emergency response personnel, create reports required under Tennessee law and federal regulations, ensure that proper emergency equipment is available, train personnel, etc. Taking time to accurately update your hazardous material inventory is time well spent.

What's Up, OptiDoc?

Through the hard work of personnel in Micrographics, EH&S is in the process of having all paper Material Safety Data Sheets (MSDS) imaged for retrieval in OptiDoc. Once the project is complete (several months from now), anyone with the OptiDoc software can view and print any MSDS that is in our file cabinets. This ensures that MSDS can be available at any time for emergency use.

Don't forget to forward original MSDS to EH&S so that they can be scanned and placed in our files.

What's wrong here? The sash is too high to properly protect against fumes and explosion.



Fume Hood Survey Complete

EH&S personnel have completed testing of laboratory fume hoods for 2000. The "2000 Fume Hood Survey Report" has been provided to appropriate department chairs and administrators. If you would like to see how hoods in your building stack up, the report is available for inspection in the EH&S office during normal business hours.

Fume Hood Renovation Update

Preliminary design work is underway on the fume hood renovation project noted in an earlier newsletter (see our web site for newsletter archives). The list of hoods included in the project is now posted on our web site: go to "Laboratory Safety," then "Fume Hoods" to see the list.

Great New Text Available

Work supported by a National Science Foundation grant has resulted in a new text, *Building Student Safety Habits for the Workplace*. This book has lots of potential as a text for a one semester course or just a student reference. If you would like to see a copy, please drop by the EH&S office.

You can learn more about this book on the Web at <http://www.terrificscience.org/books/safety.htmlx>.

Chemical Injuries? Get the MSDS!

If someone in your lab is involved in an accident involving chemicals and requires medical attention, please remember to send a copy of the appropriate MSDS(s) for the physician. The physician needs this critical information to ensure proper treatment.

Failure to take this simple step could significantly delay treatment and lead to more severe injury of the accident victim.

Are your MSDSs readily available to employees at all times and organized for quick retrieval?

The first new variable air volume (VAV) fume hoods have been installed in Manning Hall for Physics and Ellington Hall for Biology. One of these hoods has a large, ventilated chemical storage cabinet associated with it, leaving the hood for its intended use. If your lab is included on the hood renovation list, please consider requesting a ventilated storage cabinet as part of the project. Fume hoods are not intended as storage cabinets.

Are you using your fume hood in a manner that maximizes your protection?

Sources of Assistance

Manager of EH&S	678-4672
Radiation Safety Officer	678-4672
Chemical Hygiene Officer	678-4672
Environmental Protection Specialist	678-2044
Laboratory Safety Specialist	678-2740
Fax	678-4673
Emergency (Fire, Police, Ambulance, after hours Chemical/Radiological)	678-4357
EH&S Home Page	
.	http://www.people.memphis.edu/~ehas/

What Should I Do with this Stuff?

We have made quite a big deal out of the recent hazardous waste inspection, but what about other types of waste. Wastes that are not radioactive waste or hazardous waste must also be handled properly. Here are some quick tips for those other wastes:

Sharps, including needles, syringes, razor blades, scalpel blades, and contaminated broken glass, must be placed in puncture resistant sharps containers and held for pick-up. Sharps containers must not be overfilled. If you generate only small volumes of sharps containers, EH&S can handle the disposal; large volume generators should use the University medical waste contractor.

Medical wastes include vials, culture dishes, gloves, gauze, bloody bandages and towels, and related items contaminated with pathogenic or potentially infectious materials (including human blood). These items may be disposed of through the University medical waste contractor.

Small quantities of certain types of contaminated items may be autoclaved, or decontaminated with 1:10 bleach solution or equivalent, and disposed in the building solid waste (that's the trash to most of us) or in sharps containers. Decontaminated materials must not be disposed in red bags or other containers with biohazard markings.

Uncontaminated **broken glass** must be accumulated in appropriate boxes which are to be sealed prior to disposal in the building solid waste.

Uncontaminated or decontaminated **building solid waste** consisting of materials that would normally be disposed of in the trash may be placed in appropriate receptacles for disposal. Please limit quantities of materials with a "biomedical" appearance.

You can print an expanded version of this information from the "Laboratory Safety" section of our web page: Go to "Waste Management," then "Quick Guide to Laboratory Waste Management."

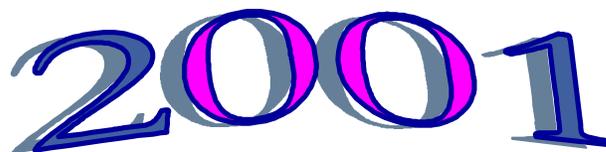
What's the Chemical Hygiene Committee?

University policies and procedures state, "The Chemical Hygiene Committee governs the development and implementation of the Chemical Hygiene Program." In addition to issuing the *Laboratory Chemical Hygiene Program*, CHC members have been instrumental in guiding lab safety improvements, including prioritization of fume hoods for renovation. Dr. Mel Beck currently chairs this Committee of knowledgeable people who are committed to promoting a safe and healthful laboratory environment.

Telephone Number Termination

Due to budget reductions, EH&S has removed telephone extension 5700 as a cost-cutting measure.

Happy New Year!



We wish you a happy and safe new year.

Environmental Health & Safety Staff

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