

Hazardous Waste Needs Constant Attention

As a result of an unannounced compliance inspection by the Tennessee Department of Environment and Conservation (TDEC) Division of Solid Waste Management, it became obvious that managing hazardous waste within our various departments requires constant attention. Issues noted during the inspection have been addressed to the satisfaction of TDEC; however, it is of utmost importance that each of us manage hazardous wastes properly on a daily basis.

Here are some of critical steps that will help keep you out of trouble:

- Determine if a waste is a hazardous waste at the place and time it is generated.
- Label hazardous waste containers with the words "Hazardous Waste," a list of the contents, and date when full.
- Inspect waste containers on a weekly basis, and document the inspection.
- Ensure that personnel who generate hazardous waste receive documented annual training and that your department's waste coordinator receives additional relevant training.

To help you with hazardous waste management, EH&S is offering more training opportunities, has added new waste determination tools to its web site, and is increasing informal inspections to give you guidance. If personnel in your department need to learn more about waste management, please request our one-hour waste management class or have them attend the August 30 Laboratory Safety Seminar.



John Daffron with new apparatus for safely heating solids in a gaseous environment.

Cooperation Resolves Research Impediment

Because of fire code restrictions and concerns about other safety issues, a researcher almost gave up on the idea for a new experiment. The good news is that Employee Safety and Health, Environmental Health and Safety, and personnel in the researcher's department cooperated to solve the problems. Woohoo!

As a result of this cooperation, a new piece of apparatus was designed and built by John Daffron of the Physics Department. The apparatus, shown at left, keeps quantities of flammable gas below the limits set by fire code and addresses other safety concerns.

If you run into a similar situation, don't hesitate to seek a cooperative solution that will allow research to proceed while meeting legal requirements and keeping everyone safe.

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Lab Fire Causes Minor Damage, No Injuries

A U of M laboratory fire involving 100 mL of hexane, 20 mL of 2-propanol, and sodium metal occurred earlier this month. The incident report indicated that “[m]ineral oil covering small pieces of sodium metal was decanted to a jar, and two successive washes of hexane were used to remove excess mineral oil. The bulk of the sodium metal was removed to a different location and was uninvolved in the rest of the incident. To the washes were added small portions of 2-propanol to deactivate any remaining sodium pieces. While pouring the mixture to a beaker ... the mixture in the jar was dropped onto the hood floor [due to mineral oil on the outside] where there was water. After 10-20 seconds the spill ignited, and the hood sash was closed to contain the fire.”



Remains of the laboratory fire include a broken Dewar

By limiting the amount of flammable solvents in the hood, closing the hood sash, and safely applying a fire suppression agent, the student involved in this situation did all the right things to minimize the threat. These actions limited damage to University facilities and prevented injury to personnel. Although a “fire extinguisher was held ready to be used,” its use was not necessary.

Lessons learned include ensuring that reactive materials in transferred waste are effectively neutralized, avoiding handling slippery glassware, and keeping surfaces dry when working with water reactive materials.

NexAir Advises of Oxygen Fires

NexAir recently advised its customers of oxygen regulator fires due to incorrect use of CGA 870 post valve seals in E, D, M4, and M6 size oxygen cylinders. NexAir says the grey nylon crush gasket supplied with every CGA 870 post valve cylinder is for single use only. So, don't reuse those crush gaskets!

Lab Safety Seminar Scheduled

The annual Laboratory Health and Safety Seminar is scheduled for Wednesday, August 30, 2006, from 1:15 p.m. until 4:15 p.m., in the Ellington Hall Auditorium. In addition to helping you work more safely in the lab, the seminar will help satisfy your departmental training requirements, including those for employees who generate hazardous waste.

To help ensure that we have sufficient refreshments and door prizes, faculty, staff, and graduate students should register through their departments by August 28.

Waste Guide Updated

The Chemical Hygiene Committee recently approved an update to the *Guide to Hazardous Waste Management*. Modifications include new on-line appendices with interactive flow charts to guide you through the waste determination process and improved guidance based on lessons learned during the recent TDEC inspections. See the updated waste guide at <http://ehs.memphis.edu/wasteman06.pdf>.

OSHA Fines Tufts University

According to an article in the *Worcester Telegram and Gazette*, the U.S. Occupational Safety and Health Administration (OSHA) has fined Tufts University \$5,625.00 as a result of an April lab accident that released a small amount of botulinum toxin from a cracked centrifuge tube.

OSHA's investigation into the incident resulted in citations for three “serious” violations related to the personal protective equipment (PPE) worn by lab personnel and lack of emergency response training.

Contact EH&S for guidance on selecting PPE.

Check those Aerosol Cans

Personnel at another university recently reported that a can of radioisotope decontamination agent, no more than 3 years old, ruptured in a lab. The can, shown in the photo at right, is said to have been held at room temperature in a storage cabinet.

If you have similar products in your lab or storage area, please take a few minutes to check the cans for any signs of deterioration. If you see anything suspicious, contact EH&S so that we can have the can removed for disposal.

New Compressed Gas Safety Manual Available

If you use compressed gases, you will be happy to know that Scott Specialty Gases recently published the 2006 edition of *Scott's Design and Safety Handbook*. The handbook may be obtained in hard copy from Scott or viewed on-line at <http://www.scottecatalog.com/DSGguide.nsf/All?ReadForm>. The manual can also be downloaded in pdf format from Scott.

Are you handling compressed gases safely?

More Training Opportunities On-line

Human Resources recently made several on-line safety classes available through ElementK. A list of these courses is available at <http://uofmpt.memphis.edu/ondemandtraining.htm>. You may register on-line or contact Minghui Wang in HR at 4231.

Please note that the bloodborne pathogens and respiratory protection classes do not meet OSHA training requirements unless an instructor is available to answer questions and provides additional instruction (e.g., how to don and doff a respirator). Please contact EH&S with compliance questions.

Avian Influenza is for the Birds

Avian influenza does not appear to have mutated sufficiently for sustained and efficient human to human transmission, but The U of M is still making preparations for a possible pandemic. The University Crisis Management Team - Operations Group has spent several weeks in the planning process, and the President's Council is currently reviewing those plans. As flu season gets closer, you will hear more about these preparations, including implementation of social distancing and travel restrictions when necessary.

Even if this turns out to be a normal cold and flu season, remember the basics to help protect yourself and those around you:

- Cover your mouth and nose with a tissue (not your hands) when coughing or sneezing, and dispose of the tissue properly. If you don't have a tissue, then cough into the bend of your elbow or onto your shoulder.
- Wash your hands regularly with soap and water, or use one of the many disinfectant wipes to sanitize your hands.
- Don't rub your nose or eyes with your hands.
- Stay home if you are sick - the rest of us don't want your germs as much as you think we do.



The ruptured can of radioisotope decon spray. Note apparent corrosion inside.

Sources of Assistance

Director 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://ehs.memphis.edu

EH&S Wins Award for Newsletter Excellence

The National Safety Council's Campus Safety, Health and Environmental Management Association (CSHEMA) awarded The University of Memphis its 2006 Newsletter Award of Excellence for the EH&S newsletter. Wow, you are reading an award winning newsletter!

Al Simpson, Director of EH&S, accepted the award on behalf of the University during the CSHEMA annual conference held at Disneyland Resort, Anaheim, CA. Along with the award plaque, Al brought back a set of Mickey Mouse ears, but he says this is definitely not a mickey mouse publication.



Katherine, Al, and Frank with the CSHEMA 2006 Newsletter Award of Excellence. (Photo by Laura Kloc)

New on the Web

EH&S has added several new tools to our web page, including new waste determination procedures for spent and unused chemical wastes, a work sheet for characterizing unknowns, and other snazzy stuff. Just go to the "Downloads" page and scroll down to the appropriate item. When our new web page goes live in a few weeks, please note that "Downloads" will become "Forms."

Having Trouble Connecting to EHS Assist?

If you work with radioisotopes and are having trouble connecting to EHS Assistant, it might be your firewall. This situation recently occurred, and Laura Kloc was able to verify that the firewall was preventing the connection. So, try turning off your firewall temporarily if you are having a problem connecting. And if that does not work, call Laura at 5700.

Don't Forget to Recycle those Cartridges

Please don't forget that Corporate Express will pick up your empty printer cartridges for recycling. Just call them at 1-888-238-6329 and request a pick up.

Reduce your environmental impact by recycling.

Lab Explosion Injures Student

According to a June 28 article published by the *St. Petersburg Times*, a graduate student at the University of South Florida received "second-degree burns to his right arm, abdomen, and pelvis" due to a laboratory fire. The student was apparently heating dichloromethane and diethyl ether in the wee hours of the morning when the container broke, resulting in an explosion and fire.

Although we don't know that the time of morning contributed to this incident, we do know that working when fatigued often leads to accidents. Sometimes it is better to knock off for the night and resume work after a good night of sleep.

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