
ENVIRONMENTAL HEALTH AND SAFETY

THE UNIVERSITY OF
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Here's to Your Good Health!

We're not just offering a toast to your health, we've actually done something to promote your continued good health on the job: A formalized Occupational Health (OH) Program is now in place.

OH Services are primarily preventive in scope and can include procedures such as screenings and surveillance; vaccinations (e.g., hepatitis B, tetanus, rabies); clearance for respirator use; respirator fit testing; and monitoring personnel with occupational exposure to animal allergens, biological agents, hazardous chemicals, ionizing radiation, Class 3B and 4 lasers, and noise.

These services have long been required by University policy and Occupational Safety and Health Administration (OSHA) regulations; however, each unit was responsible for finding medical providers, scheduling follow-up services, etc. The new OH Program removes most of those headaches and potential pitfalls by offering the option for your unit to use a single medical services provider that tracks the need for follow-up services, maintains medical records, and more. The medical services provider has even agreed to treat U of M employees who are injured on the job and covered by Worker's Compensation.

If you are a supervisor of employees who will need OH services, please consider the benefits of using this program. More information on OH services, and how to utilize them, is available on the EH&S web site. You may request a price list for these services by contacting Al Simpson.



Fire Damage Averted by Quick Action

A U of M Post-doc recently averted a potentially destructive lab fire by acting quickly to suppress flames from an overheated oil bath. No one was injured, and no major damage occurred.

Personnel in the lab have since implemented procedures to ensure that a temperature probe is properly placed in the oil bath to prevent the temperature from accidentally reaching the flash point, a critical step for

everyone with similar systems. [Flash point is the lowest temperature at which a material will give off sufficient vapors to ignite when mixed with air.]

The University of Wisconsin-Madison had a similar event last October when a temperature control failed and oil overheated.

Have you analyzed the hazards of your work and implemented reliable countermeasures and response plans to prevent undesirable outcomes?

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Ninety-nine Bottles of Toluene on the Floor

Dr. Ted Burkey, First Tennessee Professor of Chemistry, recently excited our neurons by reminding people of the importance of properly storing chemical bottles. Nothing is mundane in the lab, not even the placement of bottles. Storage above eye level, on the floor, on unsupported shelves, and without regard to hazard class presents significant dangers.

Bottles stored on the floor, as shown in the photo at right, are just waiting to be kicked, hit by a chair leg, or otherwise induced to spill their contents. Once the contents are spilled, there is a hazardous mess accompanied by the possibility of fire, injury, and other bad stuff.

Please store your chemicals appropriately!

Study Shows Likely “Lake Wobegon Bias”

The January 3, 2013, issue of *Nature* includes an article summarizing a survey of scientists’ opinions and experiences related to laboratory safety. An accompanying editorial hints at a positive self-bias (a la Lake Wobegon) among the survey respondents: Among the approximately 2,400 scientists, mostly from the U.S. and U.K., who participated in the survey, 86% felt that their labs were safe places to work; however, “almost half of respondents reported being injured in the lab.”

The data also showed that a large number of researchers work alone in the lab on a regular basis (bad) and 36% of senior scientist view safety as taking precedence over other tasks (good, but needs to be much better) versus only 12% for younger scientists (scary). Click the *Nature* link to read the article.

Is your lab, shop, or studio really less dangerous than other areas where similar work is performed?

Distracted, Drowsy Driving is Risky Driving

Recent studies have shown that drowsy driving and distracted driving are responsible for a large percentage of automobile accidents, leading to unnecessary deaths, injuries, emotional stress, and expenses.



Photo courtesy of Dr. Theodore J. Burkey

A study published by the Centers for Disease Control and Prevention in the January 4, 2013, issue of *Morbidity and Mortality Weekly Report* stated, “...some modeling studies have estimated that 15% to 33% of fatal crashes might involve drowsy drivers.” The article noted that men reported driving drowsy more often than women, and people between the ages of 18 and 34 reported a greater incidence of having fallen asleep while driving. If that’s not enough, the National Safety Council estimated in 2010 that “at

least 28% of all traffic crashes ... involve drivers using cell phones and texting.”

Let’s put the brakes on drowsy driving and distracted driving. It makes no sense to put arrival time ahead of sleep when lack of sleep may result in someone’s death or serious injury. And while it is best that cell phones not be used while driving, many people will continue to do so. If you must talk while driving, why not decrease your risks by using one of the readily available, low-cost Bluetooth devices for hands-free conversations? Let’s not even get started on texting while driving – just don’t do it.

Is your cell phone use and/or lack of sleep making your vehicle a potential lethal weapon?

New CPR Guidelines

The American Heart Association recently approved hands-only CPR for “bystander response to teens and adults who experience out-of-hospital sudden cardiac arrest.”

Scan or click the QR code for a quick video lesson.



Radioisotope License, X-ray Registration Fees may Increase in 2013

The Tennessee Division of Radiological Health is proposing to increase academic radioactive material license fees to \$1,170.00 per year. Class V (enclosed beam) and Class VI (open beam) x-ray machine registration fees may go to \$780.00 and \$1,170.00 per tube respectively. If the fee changes are adopted, departments with licenses and registrations will receive a supplemental invoice to adjust the charges for 2013.



Faucet Aspirators are Passé

Are you still using faucet aspirators to reduce pressure in lab apparatus? Faucet aspirators waste a valuable resource, water; they also risk drawing hazardous materials out of the apparatus and into the drain, creating more hazards. In other words, creating a vacuum on the cheap can really suck (our apologies to those who follow Bernoulli's principle).

We encourage you to retire faucet aspirators and try one of the many vacuum pumps now on the market.

School of Communication Sciences and Disorders Hosts New Training

We would like to thank personnel from the School of Communication Sciences and Disorders who became the first to complete Hazard Communication (HazCom) training required under the new globally harmonized OSHA regulations.

All employees who work with hazardous chemicals, or who may be reasonably anticipated to have exposure during a foreseeable emergency, should complete this training in calendar year 2013. Would your school or department like to be next?

Contact EH&S to schedule HazCom training.

Acclaimed Arts Safety Expert Lectures Here

Internationally acclaimed arts and theatre safety expert Monona Rossol visited our campus in November, presenting two lectures, touring art and theatre facilities, and providing guidance. Sponsored by the Art Department, Theatre and Dance, and EH&S, the visit gave faculty, staff, and students the opportunity to learn safety principles from someone whose background includes a BS degree in Chemistry, MS and MFA degrees in Art, authorship of nine books, and experience as a visual and performing artist. Ms. Rossol provided attendees with critical information to heighten awareness of safety and health issues.

Have you read the Safety Data Sheet and label for each chemical used in your shop or studio?

Pool Chemical Reaction at Weber State U.

According to the *Deseret News*, workers at Weber State University poured a pool chlorinating chemical into "a drum containing 30 gallons of sulfuric acid." The resulting chemical reaction released a gas cloud and caused a street to be temporarily closed. Amazingly, workers were reported to have placed the "smoking drum in [the back of] a pickup [truck] and drove it to" another area of campus.

Never disturb reacting materials! Follow your established spill control procedure.

Sources of Assistance

Director, EH&S	678-4672
Radiation Safety Officer	678-4672
Hazardous Materials Specialist	678-2044
Laboratory Safety Specialist	678-2740
Fax	678-4673
Emergency (Fire, Police, Ambulance, after hours Chemical/Radiological)	678-4357
EH&S Web Page ...	http://ehs.memphis.edu

Methylmercury Associated with TVA Spill

Researchers from Duke University and the University of Illinois at Urbana-Champaign found elevated levels of methylmercury in the Emory and Clinch River systems during an 18 month period after the 2008 TVA coal ash spill near Kingston, Tennessee. In an article just accepted for publication in *Environmental Science and Technology*, the authors noted methylmercury levels near the spill being up to 3 times higher than those upstream of the spill.



Methylmercury tends to be produced in the environment when naturally occurring bacteria transform elemental mercury into this neurotoxic organic compound. The compound's high degree of neurotoxicity and its tendency to accumulate in the environment are major concerns.

Chillin' in the Lab (or shop, or studio)

After hours of executing an experimental protocol, grinding metal, mixing ceramic glazes, or performing hundreds of other tasks, it's nice to chill out for a few minutes. Unfortunately, there are sometimes newcomers who forget one of the most fundamental safety rules: No eating, drinking, or applying cosmetics in areas where hazardous materials are being used, stored, or produced.

You deserve a break, but you don't need to risk ingesting potential poisons. Begin your break by removing all personal protective equipment (PPE) and washing your hands and other exposed skin. Then travel to a break area away from recognized hazards and enjoy your meal or snack.

Supervisors, are you enforcing the no food and drink rule in your work area?

TBR EH&S Coordinators Meet, Collaborate

The Tennessee Board of Regents' institutional EH&S coordinators met in November at TBR "world headquarters" for training, the exchange of ideas, and planning for the future. The U of M's Shelby Slater, Crisis Management Coordinator, made a presentation on emergency preparedness; Al Simpson gave a presentation on radiation safety issues.

Each TBR institution has a designated EH&S coordinator. System-wide guidance is provided by a four person EH&S Executive Advisory Committee. See more about TBR EH&S activities via this [hyperlink](#).

Thanks for Keeping Curb Cuts Clear

Members of the Safety Committee recently noticed fewer vehicles parking too near curb cuts (those little ramps connecting sidewalks to streets) around campus. Thank you for keeping the curb cuts clear of obstructions, thus allowing people with mobility impairments to use them while maintaining good sight lines between themselves and motorists.

Remember to report all accidents and near misses.

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