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# ENVIRONMENTAL HEALTH AND SAFETY

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THE UNIVERSITY OF  
**MEMPHIS**

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## Things that go Bang in the Night

A few months ago a lab worker poured waste into a bottle, capped the bottle, and went home for the night. When people returned to work, there was a nasty surprise: The waste had polymerized, causing the bottle to explode. As you can see from the picture, things were thrown around by the explosive force; what you can't see are shards of glass on the other side of the lab.



This accident had a happy ending due to two factors: Because it happened at night, no one was around to be injured; because the fume hood sash was lowered prior to leaving the lab, most of the glass and contamination was confined. Were it not for the timing and lowered sash, someone could have received a life-threatening injury, and the lab might have been contaminated.

Unexpected reactions can lead to potentially life-threatening accidents. Because someone followed good practice and lowered the hood sash, this accident only resulted in an embarrassing mess.

*Are you prepared to prevent an accident?*

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### Free Cookies, Drinks, and Door Prizes!

Our famous Laboratory Health and Safety Seminar has been scheduled for Thursday, August 28, 2003, 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 departmental training requirements found in federal regulations, Tennessee law, and the University's Laboratory Chemical Hygiene Program.

Faculty, staff, and graduate students are invited. Please register through your department by Aug. 26. Pre-registering will help ensure that we have sufficient refreshments and door prizes.

*Come learn about lab safety, have some cookies, and register to win a door prize.*

### New Policy on Hazardous Materials

Dr. Raines has approved a new policy on "Shipping and Receiving Hazardous Materials." Please read University Policy Number 1296 before shipping or receiving hazardous materials. This is serious business: Remember the ValueJet crash or look at Revlon Corporation that was recently fined \$60,000 because an employee improperly offered 3 ounces of perfume for shipment.

*Avoid a potential disaster and help the University avoid tens of thousands of dollars in fines: Don't ship or receive hazardous materials unless you are trained and certified!*

## Care and Feeding of Your New Fume Hood

Construction on the third phase of the Fume Hood Replacement Project is nearing completion. To ensure that your new hood provides you with maximum protection for many years, please remember that it is your responsibility to use your hood appropriately. Keeping your hood clean is especially important to promote long life and good performance (yours and the hoods!); stainless steel radioisotope hoods are especially vulnerable to damage caused by acid vapors and spills.

Here are some tips for users of new hoods:

- Before using the hood, ensure that the status light shows “Standard Operation” when you step in front of the hood.
- Ensure that the face velocity read-out is approximately 100 feet per minute during standard operation.
- Work with the sash as low as practical.
- When you leave the lab, close the sash before turning off the lights. (You’ll get a surprise if you don’t.)
- If the “Caution - Flow Alarm” status light illuminates and the audible alarm sounds during an experiment, close the sash and leave the area immediately.
- Call Physical Plant at 2699 or file an electronic work order to report a malfunctioning hood.
- Never work in a malfunctioning hood!

***Call EH&S at 4672 to schedule a briefing on the features of your new fume hood.***

## Updated Safety and Health Policy in Effect

Dr. Raines has approved an updated Occupational Safety and Health Program (Policy Number 1293). A major change in this update is placement of administrative responsibility for occupational safety and health under the Provost, with the Vice Provost for Research monitoring and providing administrative guidance for the entire program.

## Environmental Violations Elicit More Fines

The U.S. Environmental Protection Agency (EPA) has proposed to fine the University of Medicine and Dentistry of New Jersey \$166,658 and Kean University \$66,300 for alleged violations related to handling and disposal of hazardous wastes.

Alleged violations (not necessarily found at both schools) included:

- Failure to determine if laboratory wastes were hazardous wastes
- Failure to minimize the risk of fire, explosion, or release of hazardous wastes to the environment
- Failure to ensure that faculty and staff receive training on proper waste handling techniques
- Improper disposal of wastes

Although compliance with environmental laws and regulations is always important, current budget constraints make it even more critical for everyone to be aware of and follow the rules. If you don’t know the rules, don’t work with hazardous chemicals until you do.

***Check out the Guide to Hazardous Waste Management on the Web at [www.people.memphis.edu/~ehas/wasteman01.pdf](http://www.people.memphis.edu/~ehas/wasteman01.pdf).***

## EH&S at Campus Safety Conference

Al Simpson, Manager of EH&S, represented The U of M at the 50<sup>th</sup> International Conference on Campus Safety. The conference was sponsored by the National Safety Council’s Campus Safety, Health and Environmental Management Association.

## Congratulations, Dr. Slack

Dr. Steven Slack, Associate Professor of Biomedical Engineering, has been named Associate Dean for Graduate Studies and Research for the Herff College of Engineering. Dr. Slack also serves on the Radiation Safety Committee and is chair of the Biological Safety Committee.



## Setting up a New Lab?

If you are setting up a new lab, please contact EH&S for guidance on chemical, biological, and radiation safety issues. We can help make the process of setting up a safe lab more efficient.

## Free Training Available

University policies require individual departments to provide a variety of employee training; much of this training is required by law. Due to the significant cost of hiring contractors or sending employees off-campus for training, EH&S offers lots of training at no cost (or minimal cost). Some of the training offered includes:

- Bloodborne Pathogens - required prior to beginning work and annual refresher (1 hour lecture)
- Laboratory Health and Safety Seminar - required prior to work in labs using hazardous chemicals (3 hours lecture)
- Practicing Safe Science - supplementary training for lab workers (on-line)
- Laboratory ventilation and fume hoods - recommended for everyone who uses a fume hood (40 minute lecture and video)
- Radiation Worker - required prior to beginning work (3 hours lecture, plus homework and CD-ROM, \$10.00 per person)
- Radiation Safety Orientation - required prior to clinical assignments (1 hour lecture)
- Hazardous Chemical Right-to-Know - required prior to beginning work, annually thereafter, and when new hazards are introduced (on-line plus job specific information from supervisor)
- Hazardous Waste Management - required for those working with hazardous chemicals (40 minute lecture)
- Biological Safety Program Orientation (45 minute briefing and discussion)

A variety of video tapes are available for use with in-lab or in-shop training (see our website for a list of titles). Videos may be checked out by faculty and staff at no cost.

***Include a safety video in your next lab meeting.***

## What's an LVMP?

EH&S has contracted with Exposure Control Technologies, Inc., to assist with developing a Laboratory Ventilation Management Program (LVMP) for the University. The purpose of the LVMP is to provide a "comprehensive approach to ensuring proper design, operation, maintenance, and use of laboratory ventilation systems." Successful implementation of the LVMP will help ensure reliable hood performance, minimize the potential for occupational overexposure, ensure regulatory compliance, reduce risks, maintain system efficiency, and reduce overall life cycle costs. Physical Plant will be a partner in this process.

## Hazardous Waste Costs Lower in 2002

The University of Memphis incurred costs in excess of \$90,466 during calendar year 2002, the lowest figure during the past 4 years. Although the University has 13 hazardous waste generation sites used by academic units, only 7 sites produced waste in 2002.

Disposal costs for a kilogram of waste ranged from \$10.49 to \$10.12; however, characterization and disposal of unknown chemicals cost \$33.47 per kilogram. Units generating unknown wastes are charged \$100.00 per container to help defray costs.

***Thank you for minimizing hazardous waste costs in 2002. Keep up the good work in 2003!***

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## 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 . . . . .	
. . . . . <a href="http://www.people.memphis.edu/~ehas/">http://www.people.memphis.edu/~ehas/</a>	

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## Biological Safety Program is Official

The U of M Biological Safety Program, available through the biosafety section of the EH&S web site, is now official policy. If you have biological agents in your laboratory, or are thinking about acquiring these agents, please take time to become familiar with the Program.

*If you plan to acquire biological agents, including toxins, call EH&S to discuss legal and monetary requirements.*

As part of this Program, departments are responsible for general oversight of the biological safety efforts within their respective areas, including:

- Implementing an information and training program for all individuals potentially exposed to biological hazards
- Developing and implementing procedures for the decommissioning of areas where biological agents have been used or stored
- Maintaining records, including but not limited to training records and hazard assessments

## Anti-terrorism Laws Snare Texas Professor

In case you did not hear, alleged violations of federal laws resulted in the arrest of 61 year old Thomas Butler, M.D., Professor of Internal Medicine and Chief of the Infectious Diseases Division at the Texas Tech University School of Medicine. The federal criminal complaint alleges that Dr. Butler “willfully made a false, fictitious, and fraudulent ... statement” to federal agents, claiming that plague bacteria (*Yersinia pestis*) samples were missing.

Dr. Butler had apparently destroyed the samples, then reported them missing; this action resulted in a major law enforcement effort involving many federal, state, and local agencies. It was also reported in the media that Dr. Butler had improperly transported biological samples in the passenger compartment of commercial airliners in violation of several regulations.

## Got a Gripe?

If you are unhappy with any of the services that you receive from EH&S, we want to know. (We also like to know when you are happy.) Your feedback is helpful as we strive to provide the best service possible with the resources available. Contact Al Simpson at 4672 or e-mail [asimpson@memphis.edu](mailto:asimpson@memphis.edu) with your comments.

## New on the EH&S Web Site

Several new items have been added to the EH&S web page at <http://www.people.memphis.edu/~ehas/>. Some of these include:

- Tenth Annual Report on Carcinogens - Go to “Chemical Safety” and scroll down to the link
- Bad Bug Book - Go to “Biosafety” and scroll down to the link
- Severe Acute Respiratory Syndrome - Go to “Biosafety” and scroll down to the link
- Shipping and Receiving Hazardous Materials - Go to “Safety Manuals” and click on the links
- Revised Occupational Safety and Health Program - Go to “Safety Manuals” and click on the link

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## Environmental Health & Safety Staff

Alton Simpson, Manager of EH&S  
Ronald W. MacDonald, Laboratory Safety Specialist  
Frank Williams, Environmental Protection Specialist  
D’vorah Batzion, Clerical Assistant

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