

# Safety Talk

## Department of Environmental Safety NEWS

Volume 2, Issue 2

UNIVERSITY OF MARYLAND

Spring, 2007

### Director's Spotlight

#### DES Involved with Many and Varied Areas of Interest

Maureen Kotlas

Greetings,

Better late than never! We have managed to issue this newsletter in the early part of the semester despite the departure of our past newsletter editor. With a new editor and the assistance of our editorial board and contributors, we hope to continue to meet our goal of issuing a fall and spring semester newsletter. We hope you continue to find these newsletters informative. Please let us know your thoughts!

The Department of Environmental Safety (DES) has some interesting projects and initiatives planned for the remainder of the academic year. We are continuing to place an emphasis on laboratory safety. We are working with many labs and departments to help ensure safety and compliance for our faculty, staff and students. We are exploring the use of technology to enhance our audit program and have recently added Biosafety Level 2 training to our online offerings. We have initiated a customer satisfaction survey for our Compliance Officers and hope to gain new insight for improving that program. We also hope to assist the campus in issuance of the first Sustainability Report.



We are once again the host site for the Smart and Sustainable Campuses Conference in April. This is a partnership with the US Environmental Protection Agency and several other national college and university related organizations. Look for registration information on the DES web site (<http://www.des.umd.edu>).

Due to the departure of few DES staff members this past year, we are hoping to be back to full staffing before the end of the Spring Semester. Several new staff members joined our department in the areas of occupational safety and health, laboratory safety and biological safety. Additionally, a new position of Fire Safety Manager was created to enhance our outreach to students.

There is much more but I've run short on space. Please check our web site for additional information and announcements. Have a safe and healthful semester.

#### Special points of interest:

- Are you due/overdue for job-specific safety training? Click on Your Training Record at <http://www.des.umd.edu>
- The DES Annual Report for 2005-2006 is now available. [http://www.des.umd.edu/general/AnnualReport05\\_06.pdf](http://www.des.umd.edu/general/AnnualReport05_06.pdf)
- Biosafety Level 2 training can now be taken online. Go to: Online Training at <http://www.des.umd.edu>
- Help the University win Recyclemania at <http://www.environment.umd.edu/recycle.html>
- June is National Safety Month

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#### Online Resources

[www.des.umd.edu](http://www.des.umd.edu)

- Information and Programs by DES divisions.
- Environmental, Health and Safety Training classes schedule.
- Information for laboratory workers, principal investigators, supervisors, facilities and trades staff, and compliance officers.
- Environmental Safety's forms, permits and documents.

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## Smart and Sustainable Campuses Conference

Environmental Affairs

The University of Maryland is co-sponsoring the 2<sup>nd</sup> **Smart & Sustainable Campuses Conference** on April 17-19, 2007 at the Stamp Student Union. This is the third major campus sustainability conference hosted by UM in the past 4 years. UM will be joining the U.S. Environmental Protection Agency (USEPA), the Association for the Advancement of Sustainability in Higher Education (AASHE), the Association of Higher Education Facilities Officers (APPA), the Campus Safety,



Health, and Environmental Management Association (CSHEMA), the Campus Consortium for Environmental Excellence (C2E2), the Society for College and University Planning (SCUP), and the National Association of College and University Business Officers (NACUBO) for this event. Registration for the conference is now open at <http://www.nacubo.org/x8593.xml>. A limited number of student scholarships are available.

Campus sustainability involves a wide array of issues that affect curriculum, research and campus operations. From cli-

mate change to campus development, this conference will focus on four major themes including campus planning and smart growth; integrating sustainability into campus life; facilities and operations; and performance and measurement. Speakers will include college and university presidents, campus sustainability directors, student leaders, and other experts. At UM, many individuals are involved in sustainability issues including the Environmental Stewardship Committee that is currently compiling the first UM Sustainability Report and a new campus-wide web site focusing on sustainability issues.

*Scott Lupin*

## Going and Coming From Work: Exceptions are the Rule

Workers' Compensation

Several people have inquired if automobile accidents going and coming from work are compensable.

The general rule is that injuries sustained by an employee while going to or coming from work are not considered to arise out of or in the course of employ-

ment, and are therefore not covered under workers' compensation. However, there are numerous exceptions to the rule. For details on these exceptions see



the Injured Workers Insurance Fund web site: [www.IWIF.com](http://www.IWIF.com) and click on "helpful articles".

Whether or not an injury is compensable depends on the facts and details of the case.

*Marlene Rains*

## Background Radiation Levels

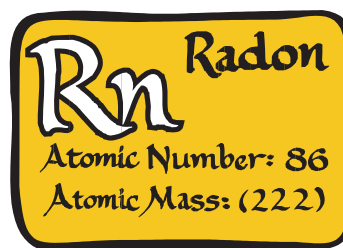
Radiation Safety

The radiation you receive daily from living on the planet is called "background" or natural radiation. "Man-made" radiation occurs due to fallout from nuclear testing; exposure to devices such as x-ray machines, accelerators, nuclear reactors; and any exposure you may receive from medical diagnostic or therapeutic measures. Naturally occurring radioactive materials are present in many consumer products ranging from building materials and smoke alarms to aircraft parts.

Radon is another form of naturally occurring radiation emanating from the earth which accounts for almost 2/3 of the dose you receive each year from both natural

and man-made sources of radiation. Also, natural radiation in the form of radionuclides may be found in water and food. Drinking water can contain the radionuclide radium in small quantities which can vary depending on geographical location.

Flying in an airplane or living at higher altitudes also increases exposure to natural radiation in the form of cosmic rays. If you decide to go into space exploration (i.e., become an astronaut) your dose from ra-



diation in space is greater than it would be if you flew a plane or lived and worked at ground level.

The average annual dose to the general population from all sources of radiation (from natural to occupational to medical) is about 360 millirems (mrem).

For comparison, the annual allowed dose, set by the Nuclear Regulatory Commission, for occupational workers, is 5000 mrem. If you are interested in more information about your background radiation contact the Radiation Safety Office at the University of Maryland.

## The Proper Fire Response Saves Lives (Including Yours!)

*Al Sactor*

Fire Marshal

The intent of this article is to make sure you know what to do if there is a fire emergency in a building you are in. The University of Maryland has a policy on fire emergencies, and you should get to know this policy. It is intended for life safety and requires total building evacuation. It is intended to save lives—including YOURS!

If you discover a fire, you are expected to pull the fire alarm as you evacuate and

call the fire department. If you hear the building fire alarm, you are expected to immediately leave the building and call the fire department.

You can reach the UM Department of Public Safety directly by dialing 911 from any campus phone, by using a blue emergency phone, or by call-



ing (301) 405-3333 from a cellular phone. If you are disabled or otherwise need assistance, make sure you have a plan for evacuation. Some University building fire alarms are monitored at the Department of Public Safety, but not all. A project is currently under way to connect all buildings to this central monitoring system.

## Avoid Eyestrain When Using Your Computer Monitor

*Martin Wizorek*

Occupational Safety and Health

Working at a computer for extended periods of time can lead to eye discomfort and blurry vision. Eyestrain symptoms include burning, redness, dryness, blurry vision, uneven vision or eye coordination, halo effects and/or headaches. To minimize eye-strain, OSHA recommends these simple actions be taken:



- Visit your optometrist annually. Talk about the amount of time you spend at a computer, and obtain glasses or contact lenses that are appropriate for computer use.
- If possible, adjust the room's lighting so it is neither too dim nor too bright.
- If possible, use incandescent

rather than fluorescent bulbs.

- Adjust the monitor's contrast to a comfortable setting. If the monitor is exposed to glare from windows or lights, consider a glare filter.
- If possible, take a 10-minute break for every hour spent at the computer.
- Use lubricating drops if your eyes are dry.

## Disposal of Biohazard Waste

*Hallie Heaney*

Biosafety

Recently, DES was alerted to an incident on campus involving some red biohazard bags found beside a dumpster with the contents strewn about the ground. If you have any trash that contains potentially-infectious biological material, it should be disposed of in an autoclave bag and must be autoclaved before being put in the dumpster. If waste does not need to be autoclaved, it should not be disposed of in autoclave bags. If the trash is considered a "sharp", it should be put into an approved sharps container. When the sharps container is full, request pickup through [www.des.umd.edu](http://www.des.umd.edu). This includes needles, glass

Pasteur pipettes, scalpels, and razor blades.

DES recommends that orange or red biohazard bags be replaced with clear biohazard bags, such as the one pictured here, with a biohazard symbol and sterilization indicator printed on them. This makes it easy to ensure that the bag has been properly autoclaved. The next time your lab needs to order biohazard trash bags, please purchase clear ones. It is also recommended that any autoclave bags—whether orange, red, or clear—be put into black garbage bags before going into the dumpster. Here are some other guidelines to follow when disposing of your autoclave waste:



\*Make sure the bags go INSIDE the dumpster. If the dumpster is full, do not put bags beside the dumpster. Bring it back into the lab until the dumpster has been emptied.

\*If you do not have clear autoclave bags, put a piece of autoclave tape on the outside of the bag before autoclaving to indicate whether it has been sterilized or not. Lab personnel can tell whether a bag has been autoclaved, but most other people cannot.

\*If your building does not have an autoclave, please contact DES for alternate methods of disposal.

\*If you have any questions about how to dispose of a biohazard, please consult the University of Maryland Biosafety Manual (<http://www.des.umd.edu>) or call (301) 405 3975.



SAFETY TALK

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Heat-related illness: symptoms and first aid

Table with 3 columns: Heat-related illness, Signs and symptoms, First aid. Lists 6 types of heat-related illnesses and their corresponding symptoms and first aid steps.

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Laboratory Safety (Eye and Face Protection)

Occupational Safety and Health

A Biology graduate student splashes a phenol mixture in her eyes. She is not wearing eye protection. She is lucky that the highly toxic and corrosive phenol did not cause permanent eye injury.

An Engineering graduate student is removing a caustic chemical from a plastic tube. He is not wearing eye protection. He

shakes the tube to remove the caustic. The resulting unintended chemical splash caustic burns to his eyes.

A Geology Post-Doc removes a plastic safety shield and uses a hydrogen torch to seal a quartz tube. He removes his safety glasses to inspect the tube and the tube explodes in his face, causing deep facial cuts but, fortunately, no eye damage.

In all of these incidents, the researchers were fortunate that no long term injuries resulted. Had they worn appropriate eye and face protection, these potentially-serious injury-causing events could have been avoided.

Depending on your procedure, eye and face protection may vary from safety glasses to chemical goggles to face shields. It depends on how you are using the material and its potential to affect your eyes

Rob Galemba



Improper workstation (without shield)



Proper Workstation (Note Shield In Place) and face.

To avoid injuries, follow your Standard Operating Procedures (SOPs). Wear eye and face protection appropriate for the operation and as written in the procedure.

Ask your PI/Supervisor to review your procedures.