



Notes

ENVIRONMENTAL HEALTH and SAFETY

Fire Factor Event Has Big Impact

On September 10th hundreds of students witnessed a student room burn. They saw and smelled the heavy black smoke and even felt the heat of the flames. After the flames were extinguished, they also had a chance to get up close and see for themselves the terrible damage that fire can do.

While the flames and destruction were real, the fire was carefully monitored by members of the Columbia Fire Department using a mock room set up on Speakers' Circle. The room was constructed of regular building materials and was furnished with items that can be found in most students' rooms.

As students gathered and chatted casually, firefighters lit a small fire in a trash can inside the mock room. They continued to chat as the smoke detector sounded and the fire grew. Just five and a half minutes later, however, there was silence as thick black smoke rolled out of the room and flames shot skyward. Those in the first several rows felt the intense heat and backed away. The change in mood was obvious. The message was received.

This was the first year for the room burn,

but it was only one part of the 8th annual Fire Factor event. Fire Factor is held each September on Lowry Mall. This year there were well

over 1,000 participants. Fire Factor provides students with an opportunity to learn about fire safety in a fun, relaxed atmosphere. Highlights included a firefighter obstacle course, bucket rides, and a chance to use a fire extinguisher to put out a real fire. If that wasn't enough, pizza and soft drinks were provided. And of course no event would be complete without T-shirts.

Lt. Shawn McCollom, who has a joint appointment with the EHS and Columbia Fire Department, worked long hours to organize the event. He is quick to point out, however, that he had help from many, many other people and that the event could not have happened without their help. Look for a video of the burn on the Columbia Channel in the coming weeks.

Dennis Elmore

Manager, Industrial Hygiene/Occupational Safety

In This Issue

Fire Factor Event	1
Campus Sustainability	2
Tritium Exit Signs	2
New RU Lab Cleanout Procedures	3
NIH Incident Reporting	4

Hands-On Fire Extinguisher Training available. Go to <http://mubsweb.missouri.edu/ehsweb/training/> for a schedule of upcoming classes.



Director's Desk

Sustainability

Sustainability is a concept that has permanently worked its way into our lives. It's hard to pick up a newspaper or a magazine that does not mention sustainability somewhere inside. This article will present a few observations about where MU stands with respect to sustainability.

To begin with, MU has a lot of good stories to tell that demonstrate a commitment to sustainable activities. Some of the most impressive accomplishments are: the energy conservation, recycling, and landscaping achievements of Campus Facilities; the many productive activities of the student group, Sustain Mizzou; faculty initiatives in pursuing research and incorporating sustainability into classes; and the Environmental Affairs Committee in documenting the impacts of campus activities on the environment. EHS has had some successes, too, such as its chemical redistribution program and its mercury reduction initiative.

Because so many people have so many different ideas about what it means to be "green" or sustainable, it is important for MU to define what sustainability means for the University as an institution. An ad hoc campus group is charged with just this task and has set a target of having a draft sustainability plan completed by the end of the calendar year. My hope is that this plan will be one that can be embraced by the entire campus community. Although an MU sustainability plan may not please everyone, sustainability is a concept broad enough and important

enough that it should be possible to develop a plan that can be embraced by most. My worry is that if not handled right, the plan could be used for divisive purposes.

Regardless of the outcome of a campus sustainability plan, there are plenty of steps individuals can take to minimize our adverse impacts on the planet and leave a better world for our children and grandchildren. I won't give a list here, but suggest that each of you put together a list of 10 activities that you do or could engage in to be more Earth friendly.

This campus has a wonderful history. Development of a good sustainability plan will help ensure that the MU has a bright future. Like any good plan, it will take many of us working together to make it successful.

Peter Ashbrook

Tritium EXIT Signs

Tritium is sometimes used to power EXIT signs inside buildings. Although institutions are not required to have an NRC license to purchase or use tritium powered EXIT signs, the NRC does require that institutions have an inventory of such signs, conduct tests to make sure they aren't leaking tritium, and dispose of them properly. EHS has become aware that NRC has been issuing fines to nearby institutions for not meeting these obligations.

As a result, EHS has worked with Campus Facilities to develop an inventory and leak test those units that are found. Because of the size of the campus, we are now asking for help from the broader campus community to find all tritium EXIT signs on campus. Here is some guidance on how to identify tritium EXIT signs.

(Continued on page 3)

New RU Lab Cleanout Procedures

As previewed in the last newsletter, EHS Hazardous Material Services (HMS) has completed development of a new Laboratory Closeout Procedure for Registered Users (RUs) and other researchers (including graduate students), who are relocating to a different campus location or who are departing MU. This procedure will ensure that the laboratory is left in a clean and safe condition for the next occupants and/or construction crews. It includes components to ensure that: all hazardous (chemical) materials are properly identified and removed prior to vacating the laboratory space; chemical moves are conducted compliant with Department of Transportation regulations; and decontamination steps (when necessary) have occurred.

The procedure consists of nine steps:

1. Notify EHS Hazardous Materials Services
2. Removal/Management of Chemical Materials
3. Removal of Gas Cylinders
4. Removal/Management of Glassware
5. Contact EHS Biological Safety (if applicable)
6. Contact EHS Radiation Safety (if applicable)
7. Recycle Electronics
8. General Cleanup
9. Final Check Out Monitoring by EHS Hazardous Materials Services

While it is the responsibility of the RU to ensure proper disposition of all hazardous materials, EHS' overall goal is for students, staff and the public to stay safe and healthy while at MU. By creating this procedure, EHS is helping structure the relocation process to assist RUs in their duties. The entire program can be viewed at:

<http://ehs.missouri.edu/haz/closeout.html>

For additional information, please contact EHS Hazardous Material Services at 882-3736 or hazmat@missouri.edu.

Todd Houts
Assistant Director, EHS

Tritium EXIT Signs (Cont.)

A tritium containing EXIT sign has a radioactive material label on it. Look for the words "Caution Radioactive Materials" and/or the radiation trefoil symbol. Other information about when the sign was manufactured and how much tritium it contains (e.g. 7 Curies) is also on the label. All radioactive EXIT signs have some kind of markings. These markings are most often found on the bottom, but may be on the side, back or, rarely, on the inside.

Note that electrically powered EXIT signs have wires or electrical connectors attached, and a fixture for a fluorescent or incandescent bulb. These do not contain radioactive materials. Luminescent signs, made of thin plastic less than ¼ inch thick, are not tritium EXIT signs and do not contain radioactive materials. Signs that have batteries are also not tritium EXIT signs and do not contain radioactive materials.

If you find a tritium EXIT sign or are in doubt about one, contact EHS at 882-7018.

Jack Crawford
Assistant Director, EHS



ENVIRONMENTAL HEALTH AND SAFETY
8 Research Park Development Building
University of Missouri-Columbia
Columbia, MO 65211

(573) 882-7018
<http://ehs.missouri.edu>

NIH Incident Reporting

The National Institute of Health (NIH) makes it very clear that non-compliance with even one (1) NIH requirement for rDNA research could jeopardize ALL NIH funded research at MU (even if the subject research is not NIH funded). Here are some guidelines to help MU researchers make good decisions about proper rDNA incident reporting:

- Report any rDNA material involved with personal injury, illness, infection or exposure;
- Report any rDNA material involved with breach of containment (spill or release outside of a biological safety cabinet);
- Report any overt (public, open or observable) or potential rDNA exposure;
- Report any suspected violation of the NIH Guidelines in containment and biosafety practices;
- Do not report any minor spills (properly cleaned & decontaminated) of low-risk

EHS appreciates campus support of environmental and safety issues. If you have any special needs regarding the format of this publication, or have any comments regarding newsletters, training programs or services, please direct your communications to Rebecca Bergfield, Editor at the above address.

agents NOT involved with a breach of containment;

Examples of NIH reportable incidents include, but are not limited to the following: skin puncture with needles containing rDNA; escape or improper disposition of a transgenic animal or plant; spill or high-risk rDNA occurring outside of containment; serious adverse events for human gene transfer trials.

Please report any potentially reportable incident to your EHS Biosafety Team (882-7018) as soon as possible. We will discuss the incident's nature, consequences, cause and response to determine if the nature and severity warrants NIH reporting. Additional assistance from the Institutional Biosafety Committee, Office of Research and, possibly, NIH staff may also be needed. EHS will complete the NIH reporting if necessary.

Remember that MU Researchers are not alone. You have help and resources available when research laboratory problems, accidents, infection, injuries and illnesses present themselves. As always, feel free to contact EHS with any questions you may have.

Roger P. Riddlemoser
Assistant Director, EHS