



n o t e s

ENVIRONMENTAL HEALTH and SAFETY

Avoid Heat Related Illness

Summer is upon us and so is the heat. While many of us work indoors, a large number of MU employees must brave the hot Missouri summer. People who work in these excessive heat conditions need to take precautions to avoid heat related illness.

There are different types of heat related illnesses and it is important to recognize how they are different. Heat cramps are the least severe and involve muscle spasms, usually in the legs and abdomen. These painful spasms usually occur when a person is working or exercising heavily in a hot environment. People suffering from heat cramps should be moved to a cool place and given cool water to drink. Stretching and gently massaging the affected areas may also relieve the symptoms.

Of more importance is heat exhaustion which involves profuse sweating, flushed or pale ashen skin, headache, nausea, dizziness, weakness, exhaustion and generally normal body temperature. Heat exhaustion requires prompt attention; otherwise, it can develop into more serious heat stroke. Care for victims of heat exhaustion begins with placing them in a cooler environment. Cooling can be enhanced by loosening or removing clothing, increasing air circulation, or applying cool cloths. If the person is conscious, they should also sip cool water. If the person's condition does not improve, call 911 for medical help.

The most severe form of heat related illness is heat stroke. Heat stroke is always life threatening and should be treated as a medical emergency.

Heat stroke is a condition where the body loses its ability to cool itself. When a person is experiencing heat stroke their body temperature climbs uncontrollably. They may stop sweating, develop redness in their skin, and have difficulty breathing. If you see someone exhibiting signs of heat stroke, call 911 immediately and cool the person by any means available while emergency workers are in route. For more information, check out the following MU resources:

EHS Web Site: <http://ehs.missouri.edu/work/heat-stress.html>

MU Extension: <http://extension.missouri.edu/publications/DisplayPub.aspx?P=Gh1900>

MissouriFamilies.org: <http://missourifamilies.org/FEATURES/nutritionarticles/nut34.htm>

In This Issue

Avoid Heat Related Illness	1
Red Tape	2
Storm Water Management	2
Going Swimming	3
Training Records Available	3
RAD Safety Committee Audit	4
In-Depth Radiation Safety Training	

David Dorth
Safety Representative

Dennis Elmore
Manager, Industrial Hygiene/Occupational Safety

EHS*Director's Desk***Red Tape**

Those two little words are used to indict bureaucracies for the inevitable inefficiencies created by policies and regulations. All of us can easily come up with examples of well-intentioned policies or regulations that provide a significant time or labor commitment well beyond what seems to be warranted.

In our capacity as the campus liaison with government regulatory bodies, EHS expends considerable effort to determine regulatory requirements and develop programs to ensure campus compliance. One of the comments we sometimes receive is that our requirements are more stringent than those at other campuses. Our MU programs are based primarily on safety considerations and regulatory compliance, but they are also heavily impacted by previous experience with regulatory inspections and reports of similar inspections at other academic institutions. In some cases, there are unique state and local requirements or other factors that impact our programs.

EHS does quite a bit behind the scenes to make regulatory compliance easier for campus researchers. If you are working with pretty standard materials that have fairly common potential hazards, you will likely find the programs not particularly burdensome. However, if your work involves unusual or uncommon materials that present special hazards, you may find more restrictions than you feel appropriate. Examples of issues that can be more challenging are: production of mixed waste (hazardous due to both chemical and radioactive materials), work with select agents, or receipt of Yellow III radioactive materials. In such cases EHS will work with you to try to develop procedures to allow your work to proceed in a timely manner.

We are most likely to develop timely, appropriate solutions if you contact us with good advance notice rather than if you contact us at the last minute.

Accidents and regulatory violations can be very disruptive to campus activities. For the past 10 years, this campus has had a good record in this regard; however, we cannot become complacent. All one needs to do is to check with colleagues at UCLA (student death due to burns from a laboratory fire) or Texas A & M (regulatory deficiencies in select agent work) to see how disruptive these issues can be to an entire campus.

I encourage you to work with EHS as a resource to minimize the negative impacts of red tape.

Peter Ashbrook

Storm Water Management

Our campus is surrounded by two local waterways.... Hinkson Creek and the Flat Branch. We celebrate their presence along our campus and trails. Unfortunately, the potential exists for storm water to pick up harmful pollutants found in the urban environment and deliver them to the waterways. The University, along with the City and County are bound by a joint permit to protect our waterways to the maximum extent possible. To this end, we've implemented a storm water management program that involves educating the faculty, staff and students to use best management practices that create a cleaner, less impervious urban environment.

Did you know that the storm drain inlets you see along the sides of the streets and at low points in the landscape drain water directly to our creeks without any treatment? Waterways become impaired when storm water delivers dirt/sediment, oils, paint, solvents, pesticides, fertilizers, bacteria, yard clippings and trash. EHS has applied storm drain markers that say "No Dumping, Drains to Stream" in an effort to increase public awareness.

What can we do as a university community to

preserve the beauty and functionality of Hinkson Creek and the Flat Branch?

- Do not allow dirt or sediment to leave construction sites
- Keep hazardous materials covered or stored inside
- Ensure the storm water in outdoor secondary containment is clean before releasing it
- Do not flush spilled materials into storm drains
- Wash vehicles and equipment where water drains to the sanitary system
- Pour used mop water where water drains to the sanitary system
- Ensure dumpsters are watertight and keep the lids closed
- Recycle cooking grease
- Use minimal lawn/agricultural chemicals
- Regularly inspect and maintain the storm sewer system
- Reduce the amount of impervious surface in construction plans
- Do not pour anything into the storm drain

These simple measures make a big difference and so does your vigilance. If you observe any signs of contamination in the creek, please call EHS right away at 882-7018. Remember, only rain and snowmelt should enter the storm drain and the less pollutants they pick up along the way the better!

Liz Marble
Environmental Specialist

I'm Going Swimming . . .

It's a fact that you can get some of the same bacterial problems from ingesting contaminated pool water that you can from eating. With that in mind, why wouldn't you want the pool water to

be pristine for your swimming enjoyment?

You can help keep the water clean by practicing a few good sanitary habits. Showering before swimming is an excellent start. The reasons for showering are that you rid your body of sweat and oils that not only carry bacteria but these also deplete the sanitizer in the water quicker. Being organics they reduce the chlorine or bromine in the pool water at a faster rate and deplete the sanitizing effect in the water. Next, if you or your children need to use the bathroom, please do so and not in the water. If you are having diarrhea, please stay out of the pool as you are a prime candidate for contaminating the water. Also, please go to the bathroom/changing room to change your child's diaper. Many people do this pool side and rinse in the pool water. That is just plain gross and contaminates the water as well. All of these lead to contamination of the water by Salmonella and E. coli which are fecal bacteria that when ingested can cause nausea, vomiting and diarrhea after a few days of incubation time in your body.

The pool management team tries to keep the pool water in a pristine and sanitary condition. Your assistance is a definite plus in that direction.

Richard M. Fancher
Sanitarian

Training Records Available

Have you ever needed to provide proof that you have completed an EHS course, or wondered when was the last time you took a specific course? That information is available on the EHS website. On the following web page <http://ehs.missouri.edu/train/index.html> look for "Miscellaneous". The link to "View your training history at EHS" can be found there.

As with registering for a class on line, this will require that you know your correct employee ID/student ID number. Training information is added to the EHS database as soon as possible after a class is completed, but it may take up to a week. If you need proof of attendance earlier than that, please call me at 882-3986.

Rebecca Ann Bergfield
Training and Development Coordinator



ENVIRONMENTAL HEALTH AND SAFETY

8 Research Park Development Building
University of Missouri-Columbia
Columbia, MO 65211

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

Radiation Safety Committee Audit

One of the major Radiation Safety Committee (RSC) activities is to perform the annual Audit of the Radiation Safety Program. The 2009 Audit is now in progress. The Committee members, organized in nine teams, will review nine program areas, interview the Radiation Safety Staff, and meet with several Authorized Users (AUs) on both the campus and the hospitals in the performance of this audit of the overall program. The RSC Audit is designed to keep the RS program healthy as well as to strengthen communications between Principal Investigators, the RSC, and RS Office.

The RSC Audit is one of three that are performed on the RS program to keep it functional, in compliance, effective and complements the RS Office, and Consultant audits. It also provides an opportunity for the RSC members to be engaged with the RS Program and Principal Investigators that use radioactive materials at MU.

Once the Audit is complete, the RSC will make recommendations for the program's development and improvement. The RSC encourages all AUs to make necessary adjustments in

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.

their laboratory's programs and schedules to accommodate this audit.

Jack Crawford
Assistant Director, EHS

In-Depth Radiation Safety Training

The Radiation Safety Office of MU's Environmental Health and Safety is offering NE 4302/ 7302 "Safe Handling of Isotopes" again this fall 2009 semester on Wednesdays (Aug 26 – Nov 11), 2-4 pm. This is a 24-hour, 1 semester credit hour class for either undergraduate or graduate credit. This class will be taught by the MU Radiation Safety Officer, MU RS Office Health Physicists and several guest lecturers.

This class is designed to meet MU's NRC License requirement to qualify new radioactive material Authorized Users. It will also satisfy the 3 year requirement for refresher training for Radiation/ Ancillary Workers. However this course is also available for university credit or just auditing the course or a module of the course.

For more information, please contact the Radiation Safety Office at 882-7018.

Jack Crawford
Assistant Director, EHS