



notes

ENVIRONMENTAL HEALTH AND SAFETY

Life Sciences Center

The grand opening of the new Life Sciences Center was September 17. This facility will be a tremendous asset to campus. Even so, activities within the building present a variety of safety and environmental challenges. EHS has been involved throughout the planning and construction of this building, and now the occupancy by researchers, to make sure that appropriate steps are taken to address safety and environmental concerns.

During the design of the building, a number of EHS staff attended numerous meetings coordinated by Robert Swanson and others in Campus Facilities' department of Planning, Design and Construction. We looked at such issues as number and placement of eyewashes, asbestos and lead during the demolition activities prior to construction, various biosafety issues, laboratory hood design, life safety and design of the kitchen facilities for the Catalyst Cafe. Prior to and during construction we arranged for a land disturbance permit for the construction site and a construction permit for the emergency backup generator. During construction, Dwight Hubert, the campus Project Manager, kept EHS well informed about issues and consulted with us on several safety issues that came up during construction. To help EHS staff gain a better understanding of the facility, Dwight and Jim Bixby organized tours of the building prior to its opening.

The Life Sciences administrative staff also demonstrated a strong interest in having early

and active EHS involvement in the research activities of the building. Mike Roberts, Mike Chippendale and Jim Bixby have been the most active in working with EHS, but there have been

many others. We began holding coordination meetings six months before the building opened. We have worked together to identify general strategies for addressing issues associated with radioactive materials, hazardous (chemical) materials and biological materials. In some cases, the strong interdisciplinary and group research concepts have caused us to work out new kinds of arrangements for control of hazards and regulatory compliance.

By involving EHS very early in the process, we have been able to explore a wider range of options than had these issues been put off until the building was occupied. We have especially appreciated being kept apprised of current plans for moving researchers into the building. Closing, moving, and setting up laboratory research operations all have significant regulatory implications. Again, early involvement and coordination have enabled EHS to schedule activities to meet researchers' needs. Thanks to Mike Roberts' inquiries, we even began working on special procedures for use by the campus maintenance staff and custodians to assure that the health and safety of these individuals are protected.

EHS thanks all the individuals who have made safety a priority at the Life Sciences Center.

Peter Ashbrook

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Director's Desk

Partnering with the Campus Community

In the safety business, it is sometimes difficult to objectively determine whether we're doing any good. At the end of the day, I would love to be able to say that our programs or guidance prevented three chemical spills or two excessive exposures to radioactive materials or five fires. While that won't happen any time soon, this past summer I have become more and more aware of the excellent cooperation we have throughout campus when we approach people with our concerns.

As I write this, one of the most recent examples of cooperation can be found in the Department of Molecular Microbiology and Immunology. We recently approached the Chair, Mark McIntosh, about some concerns we had with a silver recovery unit, which has been used to recover silver from used photographic chemicals. Once we brought these concerns to Dr. McIntosh's attention, he responded thoroughly and promptly. This kind of response encourages us and helps us in compliance efforts with government inspectors more than most people realize. Thank you Dr. McIntosh.

Another department that has worked well with EHS has been Campus Dining Services. Julaine Kiehn, Steve Simpson, and others work with EHS to provide safe and sanitary food services. Campus Dining does not solely rely on EHS inspections. We go the additional step of communicating back and forth about ideas that can improve safety practices, training programs, and even the EHS inspection process. Our close working relationship has been especially important this summer with the

opening of Plaza 900 and the Catalyst Cafe. Elsewhere in this newsletter, you will see additional examples of how EHS has partnered with the new Life Sciences Center to address safety issues from the beginning.

Safety and environmental compliance are not just an EHS responsibility—they are everyone's responsibility. These cooperative working arrangements and successes are exactly what the campus needs. To those who have worked with us successfully in the past, we thank you.

Peter Ashbrook

STOP AND HELP PAVE THE WAY TO A SAFER MIZZOU!

PAVE (Pedestrian and Vehicle Education) wants you to be a safer pedestrian and driver on campus.

HERE ARE SOME TIPS TO KEEP YOU SAFE:

1. PEDESTRIANS: always use the designated crosswalks.
2. DRIVERS: remember to yield to pedestrians at crosswalks.
3. *MUTUAL COURTESY* is the key to a safer Mizzou.



EHS Training

This article briefly reviews some of the campus training requirements and opportunities available for MU staff, faculty and students.

For persons new to campus, we have developed an on line safety orientation course to give a brief overview of how safety is addressed at MU. You may wish to take this orientation course even if you have been with MU for awhile. There are new EHS developments and opportunities all the time. This course can be found at web.missouri.edu/~muehs/Classes/SafetyOrientation/Home.htm.

Many of our training courses address laboratory safety issues. All persons working with radioactive materials are required to take the Introduction to Radiation Safety course. We require a refresher every three years. Likewise, all users of hazardous (chemical) materials are required to take an introductory course with a refresher course every three years. Last, all persons working with non-exempt recombinant DNA or conducting research at biosafety level 2 or 3 must take Introduction to Biosafety and a refresher every three years. All of these program areas also have training programs for ancillary workers—persons who don't work directly with these materials, but who work in areas where these materials are used or stored.

EHS also offers a variety of courses that may be required or desirable based upon your job responsibilities. Some examples are asbestos awareness, asbestos worker, blood borne pathogens, food handling and sanitation, CPR and first aid, (15-passenger) van safety, hazardous materials shipping, fire extinguisher use and back safety.

EHS has provided a number of courses upon request to meet special campus needs. Feel free to contact our Training Coordinator, Rebecca Bergfield, at 882-3986 to see how EHS can help you with training.

Pedestrian Safety

With the start of classes in the fall, we have a significant proportion of new students and many new staff who are unaware of previous campus activities to address the inevitable conflicts that arise from tens of thousands of students and vehicles descending upon campus.

Overall, EHS has established a pedestrian safety program with the slogan, "PAVE the way to a safer Mizzou." PAVE stands for Pedestrian And Vehicle Education. We have distributed several different posters and have worked with various campus departments to promote pedestrian safety. Examples of other participants are MU Police who have stepped up enforcement of vehicles not yielding to pedestrians in cross walks, Campus Parking putting PAVE flyers in the packets with parking permits, Campus Facilities repainting cross walks and posting more visible warning signs, Athletics running public service announcements on the scoreboard at football games and Student Services holding various promotions targeted at students.

The campus is also actively looking at additional engineering steps that can improve pedestrian safety. The most visible examples are the pedestrian bridges on Providence Road and College Avenue. The campus has been working with the City Public Works department to review existing cross walks for possible safety enhancements, and to discuss the need for additional cross walks and stop signs. On a larger level, a consultant has been tasked with reviewing the Campus Master Plan with an eye toward improving pedestrian and vehicle traffic flows.

No doubt there will always be some inconsiderate drivers or pedestrians on campus. Mutual courtesy and awareness among drivers and pedestrians are the keys to preventing accidents. We encourage the entire campus community to help "PAVE the way to a safer Mizzou."

ENVIRONMENTAL HEALTH AND SAFETY

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<http://web.missouri.edu/~muehs>

Old Emergencies - New Guides

Many of you are aware of the Emergency Procedures Guides and Posters that Environmental Health and Safety (EHS) distributes on campus. This past summer EHS updated the information on these posters and had them reprinted. The newest edition of the poster is yellow and should be posted near phones, on public bulletin boards, in business offices, classrooms, laboratories, and anywhere reminders of proper emergency response is needed.

While it is important to post the newest edition of these posters, it is also important to remove outdated information. Please check your workspace and files for outdated Emergency Procedure Posters. Remember, if it isn't yellow, it is out of date!

For a copy of the newest Emergency Procedure Posters please contact us at ehs@missouri.edu or by calling 882-7018, and let us know to whom and where you want the posters sent.

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.

Reminder: With each new semester comes a new group of students and employees to your work area. Take a few moments to orient all employees of what to do in case of an emergency. If the individuals come from a different country, remind them to call 911 in cases of emergencies.

Rebecca Ann Bergfield
Training and Development Coordinator

EMERGENCY Procedures

In all emergency circumstances, it is important to remain calm and follow the steps indicated. If there are any questions concerning these procedures, please refer to the emergency numbers listed.

A. FIRE

1. Set off the alarm.
2. From a safe location call the Fire Department (911). Give the nature and location of the fire.
3. Evacuate the building and assist handicapped individuals.
4. Use a fire extinguisher, if possible to do so without jeopardizing personal well-being.
5. Notify MU Police (882-7201).
6. Notify Campus Facilities (Area 882-8211, nights 882-3333).
7. Report to your supervisor.

B. CHEMICAL OR BIOLOGICAL RELEASE

1. Evaluate the area to the extent appropriate.
2. Warn fellow workers and supervisors.
3. Call Environmental Health and Safety (882-7018). At night, on weekends, or holidays call MU Police (882-7201).
4. Take action to contain the spill if it is possible to do so without jeopardizing personal safety or health.
5. DO NOT call state or national emergency response numbers without prior authorization unless the spill is of hazardous proportions and immediate contact with EHS is unavoidable.

C. MEDICAL EMERGENCY

If the individual is unconscious:

1. Call for an ambulance (911) requested by the individual (if at the University Hospital call 882-7979, Ellis Faculty Hospital call 911, or Columbia Regional Hospital call 9333).
2. If the injured party is a University employee, contact a care facility authorized by Worker's Compensation (882-7018).
3. If the individual is a student and fully conscious, call Student Health Services (882-7483) and give information.

If the individual is unconscious:

1. Call for an ambulance (911) at the University Hospital call 882-7979, Ellis Faculty Hospital call 911, or Columbia Regional Hospital call 9333.
2. Do not move the individual unless authorized by some medical authority, or if obvious that delay in movement would be detrimental to the individual.

HELP CASES

1. Call MU Police (882-7201).
2. Notify appropriate supervisors.

D. EARTHQUAKE

1. Stay indoors if already there.
2. Take cover under sturdy furniture, such as walls, tables, or in doorways, halls or against inside walls.
3. Stay near the center of the building.
4. Stay away from glass windows or doors.
5. Avoid running through or near buildings where there is the danger of falling debris. Previous outdoors should stay in the open, away from buildings and structures and a safe distance from utility wires.
6. After tremors have stopped, stay away from damaged buildings and structures.

E. TORNADO

1. If outdoors, move away from vehicles and into the basement or interior hallway on a lower floor. Avoid auditoriums, gymnasiums or other areas having a wide, flat open roof. Take cover under heavy furniture.
2. If indoors, lie flat in the nearest depression, such as a ditch or ravine. If there is time, move away from the path of the storm or at right angle.

F. RADIATION EMERGENCY

1. Fire involving radiation:

- a. Follow procedures for fire.
- b. Inform emergency personnel that a radiation hazard may exist.
- c. Contact EHS Radiation Safety Office (882-7221). At night, on weekends, or holidays call MU Police (882-7201).

2. Medical emergency involving radiation:

- a. Follow procedures for medical emergency AND
- b. Inform medical personnel that a radiation hazard may exist.
- c. Contact EHS Radiation Safety Office (882-7221). At night, on weekends, or holidays call MU Police (882-7201).

3. Release of Radioactive Materials:

- a. Evacuate personnel from radiation contaminated area.
- b. Assessments of personnel in nearby safe area and radiation surveys and personnel decontamination are performed by the EHS Radiation Safety Office.
- c. Prevent the spread of contamination from the site.
- d. Use nearest telephone for communication and avoid making through buildings.
- e. Close off doors and windows and, if convenient, turn off an equipment that might transfer radiation contamination throughout the building.
- f. Control access to radiation area and post warning signs indicating radiation and contamination hazards.
- g. Contact EHS Radiation Safety Office (882-7221). At night, on weekends, or holidays call MU Police (882-7201).
- h. Decontamination of rooms and buildings shall only be done under EHS Radiation Safety Office supervision.

EMERGENCY NUMBERS

Ambulance Service	911
Canvas Facilities	882-8211
Days	882-3333
Nights, Weekends, Holidays	882-3333
Columbia Regional Hospital Emergency Response	9333
Ellis Faculty Emergency Response	911
Environmental Health and Safety (EHS)	882-7018
Nights, Weekends, Holidays (MU Police)	882-7201
Fire	911
Mid-Missouri Crisis Line	445-5035
Police	911
Poison Control	1-800-235-5222
Student Health Center	882-7481
University Hospital & Clinics Emergency Response	882-7979
Worker's Compensation	882-7979

For more information visit the EHS website
<http://web.missouri.edu/~muehs>

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If it isn't yellow, it is out of date! Contact EHS for the current Emergency Procedures Poster.