Campus Emergency Preparedness and Planning

Recent world events have highlighted the need for every person to be ready for the unexpected. Tragic events like the September 11, 2001, attack on our country, violent acts at our schools and campuses, and multiple natural disasters mandate we no longer accept, “It will never happen here!”

At Purdue, as with many other colleges and universities, these human-made events and natural disasters are leading top administration to focus on emergency preparedness and planning. Purdue University's Campus Emergency Preparedness and Planning Office was created in December 2006 to oversee the emergency preparedness and planning activities on the Purdue West Lafayette Campus. The Emergency Preparedness Office partners with the Purdue Police and Fire Departments as well as many other units around campus and the local community to prepare the university for emergency events. The office is tasked with the oversight of the university's “All Hazards” Integrated Emergency Operations Plan, which will be used in the event a natural disaster or a human-made incident strikes the campus.

Ron Wright was selected as the first Director of Campus Emergency Preparedness and Planning. Ron's responsibilities include further developing emergency preparedness plans and expanding the integrated plan, which includes outlining operating procedures for use in response to disasters and/or emergencies and the recovery from these events. The office will collaborate not only with Purdue departments but also city, state, and federal organizations to ensure Purdue plans include current policies and emphasize a “team” concept, a must in dealing with catastrophic events.

In addition, Ron will help develop and present training programs for students, faculty and staff in emergency preparedness processes.

In the first few months of operation, the Emergency Preparedness Office has focused on three basic emergency preparedness and planning questions: Where are we now? Where do we want to be? How do we get there?

Ron states that Purdue has always been focused on safety issues but his goal is to make existing programs better and add new programs as needed.

Lastly, Ron wants to immediately set a solid emergency preparedness foundation and have Purdue University become a world-class emergency preparedness institution just as it is a world-class university in so many other areas.

For more information about the Campus Emergency Preparedness and Planning Office, visit their web site http://www.purdue.edu/emergency_preparedness.
Sharing Biohazardous Agents

by Robert Golden

Sharing bio-agents or materials with colleagues promotes and facilitates research, but doing so without institutional oversight could result in safety and regulatory problems. It is important that the Purdue Institutional Biosafety Committee be made aware of bio-agent sharing prior to the transfer.

Many commonly used Risk Group 2 microorganisms found in research labs can cause serious disease and/or related complications for lab staff if they are not made aware of the hazards and handling requirements. In addition to general lab safety, many biohazardous agents are restricted and closely regulated by numerous government agencies: Centers for Disease Control, Department of Commerce, Animal Plant Health Inspection Service, National Institutes of Health, as well as Purdue University.

Contact Robert Golden (rwgolden@purdue.edu or 765-494-1496) before sharing Risk Group 2 bio-agents or materials. After being informed of a bio-agent transfer (sharing) between researchers, the various University oversight committees such as the Institutional Biosafety Committee (IBC), Purdue Animal Care and Use Committee (PACUC), and Institutional Review Boards (IRBs) will be consulted about protocol approvals. REM will initiate protocol amendments if needed, review bio-agent related training, and discuss specific handling procedures (i.e., labeling, packaging, and shipping).

News from the Industrial Hygiene Group

by Adam McLeland

This article provides a brief update of industrial hygiene news and activities currently being undertaken by the REM industrial hygiene group with respect to the Hearing Conservation Program and Respiratory Protection Program.

**Hearing Conservation Program - Summer Survey Activities**

The University's Hearing Conservation Program (HCP) currently has approximately 300 participants including power plant employees, zone personnel, central shop personnel, and grounds personnel. Occupational Safety and Health Administration (OSHA) requirements stipulate that personnel exposed to 85 dBA, calculated as an eight-hour time weighted average (TWA), need to be in a hearing conservation program. Essentially, one has to be exposed to an equivalent of 85 dBA continuously for an eight-hour shift to be in the program.

As such, the industrial hygiene group will be performing personal exposure monitoring on individuals currently in the program and on areas identified as potentially high risk with respect to noise exposure. The industrial hygiene staff will also be performing area noise surveys in mechanical rooms of campus buildings and in the central shops to further identify high noise exposure areas on campus.

**Respiratory Protection Program - N95 Filtering Face Piece Discussion**

Do you have staff that wear N95 disposable respirators (filtering face pieces)? If so, we want to hear from you! OSHA has published interpretation letters, classifying N95 filtering face pieces as tight-fitting respirators. As such, a medical evaluation and fit test are required prior to use.

It should be noted that the OSHA respiratory protection standard does make an exception for voluntary use of respirators. The exception states that if a respirator is used voluntarily (i.e. in a situation where exposure above an established exposure limit is not anticipated) a medical evaluation and a fit test are not required.

In summary, if an N95 filtering face piece is required, as stipulated in a written departmental standard operating procedure or due to potential chemical exposure, a medical evaluation and fit test are required prior to use. If an N95 is used voluntarily, a medical evaluation and fit test are not required. However, per OSHA, a form needs to be filled out prior to voluntary use. If you need a voluntary use form or have questions concerning N95 use in your area, please contact Adam McLeland at 494-9227 or ammcleland@purdue.edu.
The sender's name is made up, but the following is a real question that came in an email recently.

Dear Dr. Swihart,

This is Michael Lee, a graduate student in the Phillips group. I am wondering if the water in the eyewash fountain is regular tap water. It hurt my eyes when I used it today. I collected some of the eyewash water, and it is yellowish and cloudy. Should it be like that?

The answer to Mr. Lee's question is, “No, all eyewashes should be flushed at least weekly to prevent this type of problem.”

Eyewashes are supplied from a potable water source that starts out clean and usable for any purpose but left to sit in the pipes for a week or longer it can become quite unpleasant. Although eyes can be irritated by clean potable water at moderate temperatures (because it is not isotonic and most people's eyes are very sensitive), the description of the water given by Mr. Lee is indicative of an eyewash that has been neglected.

Make sure your eyewash is ready in an emergency: flush it weekly. Eyewashes are the responsibility of the department, not the building. REM checks eyewashes and emergency showers annually, but every laboratory or shop should have a person who is responsible for flushing the eyewashes weekly. Turn it on and let the water run until it runs clear and clean. If your eyewash is plumbed into a drain, count your blessings. Quite a few are not, and flushing those units involves some extra work to contain the water.

Like a horror movie, our unsuspecting victim is walking in a rain storm carrying boxes and books. His vision is partially obscured because of the falling rain. Dark clouds blot out the evening sun. One would think a sidewalk to be a safe place, but WHAM! The creature spews its thorny weapon and our victim steps on a four-inch spike. The thorn goes right through his leather shoe and into the soft fleshy bottom of the foot.

The honey locust tree, Gleditsia triacanthos, a native of Indiana, is sprinkled around campus. One particular villain is located on the east side of the pharmacy building. Honey locusts commonly have thorns 10-20 cm long growing out of the branches; these may be single, or branched into several points, and commonly form into dense clusters.

When one encounters a foot injury or any injury, please report such incidents right away. A first report of injury can be sent to Kristi Evans at REM. Seek medical attention. Care should be taken to ensure no serious damage has occurred and one should have the foot treated for infection. A tetanus shot might be needed to prevent any other serious health problems.

Flush!
by Linda Swihart

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Dear Dr. Swihart,

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Taking Ergonomics Home, Part II

by Regina Brummett

This is the conclusion of the article presented in the winter 2007 REM Newsletter.

We spend approximately one-third of our lives sleeping in bed and no one needs the low back pain that accompanies sleeping on a surface not supportive of the natural curve of the spine. Invest in a good supportive mattress. If you sleep on your back, place a pillow under your knees to support your legs. If you sleep on your stomach, consider laying a pillow between your hips and shoulders to reduce the arch in your back. Put a small pillow under your head to improve neck alignment. If you sleep on your side, you can place a pillow between your legs or rest your top leg on a pillow in front of your body. A pillow between the arms can be helpful too.

If you watch TV or read in bed, there is a condition called torticollis, commonly known as "wry neck", which may result. Symptoms are a sharp pain in the neck muscles with a noticeable loss of mobility. There are bed wedges and bed loungers designed to support a normal neck posture while reading and watching TV in bed. Use direct lighting and look for bookstand lights which attach directly to the book. Did you know stretching before going to bed and upon waking will help reduce stress and discomfort?

Moving outside to the lawn and garden, make sure you stretch and exercise through the week so that you're up to the physical demands of outside work on the weekend. Use tools that help you avoid undue bending and stretching. The lower back is especially vulnerable to strain with this type of work. Take frequent breaks and avoid static postures.

You should store tools and equipment in easy to reach locations and use carts or wheelbarrows to move heavy or bulky equipment. Use kneepads to reduce stress on the knees. Try to space out yard work over several days to avoid fatiguing muscles. Hand and wrist intensive chores, such as weeding and pruning, should be alternated with mowing or raking to reduce the amount of repetitive motion and stress in one area.

Working on your car? When working under the hood, lay your body weight against the car and use one hand for support. Avoid bending over the car for long periods of time. Rest on one knee when working on lower areas.

Building something in the workshop? Elevate your work to waist level. Rest on one knee when working at floor level. Knee pads or a cushioned mat will be helpful here. Use power tools to avoid repetitive motion and use handles and padding to reduce the impact of vibration. When doing repetitive work, take frequent short breaks to stretch and rest your hands, shoulders, back and legs.

This article only highlights some obvious changes you can make to improve your ergonomic health. Do a walk-through in your own home and make a list of everything you notice that might create unreasonable stress and strain on your body. Use this list to help determine what changes in tools and living habits can be made to help you and your family work and rest ergonomically safe. Be aware that just because your local discount store labels a tool as ergonomic doesn't mean it is. Remember to research before you buy!