Campus Disaster Drill

A disaster drill was recently held at WSU to help Campus Emergency Response Teams (CERT) practice rescue skills they learned in training last year.

Dr. Ordyna arranged mock explosions at the Stewart Library and in Wasatch Hall. Reporters from local newspapers accompanied 50 CERT-trained campus employees and students as they assessed building damage searched for victims, tagged them according to the extent of their injuries, removed victims from hazardous positions, administered first aid as needed, and reported their findings to team leaders. Volunteers acted as victims, complete with moulage (wound make up) and fake blood. They portrayed behavior typical of their injuries to make the experience more realistic.

Ogden firefighters and paramedics observed, assisted, and assessed the exercise. “I think the exercise was very successful,” Dr. Ordyna said.

Another CERT course will be offered later this year. Individuals who want to participate should contact Dr. Ordyna at rordyna@weber.edu, or at 626-7891.

Campus Emergency Planning Update

A planning team from the Department of Public Safety recently completed a written Emergency Operations Plan. The plan can be viewed at weber.edu/ehs, under Program Areas, select Emergency Response.

The plan is based on the nationally-recognized Incident Command System. It defines how the university will operate during critical incidents affecting students, faculty staff or facilities. Such incidents could include major snow storms, earthquakes, fires, etc. The plan also outlines possible university responses based on hazard levels.

The system integrates and coordinates multiple responders. At the same time, the system provides for:

- Responder safety
- Clear leadership
- Effective and efficient on-site response

The three major functional groups of the Emergency Operations Plan are:

1. The Administrative Operations Command, which develops policy before and during an incident
2. The Emergency Operations Command, which coordinates and supports efforts of on-scene responders.
3. The Incident Command, which provides on-scene expertise

Public Safety staff have trained most of the university’s EOC members to use the plan, and will continue training AOC and IC members.

Risk Management Inspections

Once again, the Department of Public Safety (DPS) is conducting annual risk management and fire inspections of all campus buildings. Over the past few years DPS inspectors have noted that building occupants have an increased awareness of fire and safety issues. As a result, the number of hazards noted in certain buildings have decreased each year. DPS would like to thank those who help abate the hazards in their area in a timely manner.

Before inspecting each building, inspectors invite building representatives to accompany them as they look for fire, general, and laboratory safety hazards. After inspections DPS sends departments written recommendations for eliminating the hazards. Departments then have opportunities to correct hazards before DPS submits a report to the State Division of Risk Management. The report certifies that hazards have been corrected. If corrections will not be completed before the report is submitted, departments need to furnish specific completion dates and plans for corrections.
**What’s An MSDS?**

**Material Safety Data Sheets** (MSDS) contain important safety information you should read before using chemicals. An MSDS includes information about the effects a chemical could have on your health, the chemical’s flammability, personal protective equipment you need while using the chemical, how to dispose of the chemical so it doesn’t pose a threat to people or the environment, and what to do if the chemical is spilled. The Occupational Safety and Health Administration (OSHA) requires employers to provide ready access to MSDS for chemicals their employees use.

**Who needs MSDS training?**

If you handle chemicals, or if you supervise individuals who handle them, contact Richard Sandau for required chemical safety and MSDS training (ext 8004, rsandau@weber.edu).

**Laboratory Explosion**

An incident illustrates the importance of reading an MSDS **before** handling a hazardous substance.

A lab technician found a 17-year-old can of methyl ethyl ketone peroxide in a lab. Since the can was in poor condition, the technician poured the contents into two Bakelite bowls, placed them in a fume hood, then closed the sash. Had the technician read the MSDS for the product, he would have been aware of the possibility the compound could form explosive peroxides.

Several hours later smoke from an explosion in the fume hood activated a fire alarm. The fire department extinguished the fire before flammable solvents ignited. Damage was between $10,000 and $20,000.

Although no one was injured, it is frightening to contemplate what could have happened if the peroxide had exploded as it was poured from the can.

**New MSDS Database On-Line**

WSU staff, faculty and students can now easily access MSDS via the WEB. This past year EH&S purchased a database called **MSDSpro** and populated it with many MSDS for most chemicals used on campus. A total of about 73,300 MSDS are now available on this site.

You can access the **MSDSpro** database several ways.

www.weber.edu/ehs/. Click on program areas, then click on WSU Material Safety Databases.

You can also go to the WSU home page, under “other links” choose Environmental Health and Safety, then click on Hazardous materials, then WSU MSDS.

Once you are into the database you can search by product name, manufacturer, storage location, sounds like, CAS number, stock number, ingredient name, and other categories. **MSDSPro** will produce a list of chemical products that match your search.

If you do not find the MSDS you need in the **MSDSpro** database, you can request one online from the bottom of the search page. You may request an MSDS by contacting Richard Sandau at 626-8004 or rsandau@weber.edu.

This new system is customer friendly and helps WSU meet regulatory requirements.

**Hazardous Waste Pick-Up Request Now Available On-Line**

EH&S now receives requests for a hazardous waste pick-up on-line. Here’s how to do it:

From weber.edu/ehs, click **Program Areas**, **Hazardous Materials**, Chemical Safety, Hazardous Waste, then **On-line Hazardous Waste Request Pick-Up form** at the bottom of the page.

EH&S will pick up your hazardous waste within three workdays.

For answers to questions, contact Richard Sandau at ext 8004, rsandau@weber.edu.
Carbon Monoxide Hazards

Carbon monoxide is a tasteless, colorless, odorless gas that interferes with the delivery of oxygen throughout the body. The result of carbon monoxide poisoning can be lethal. Carbon monoxide is produced when fuels do not burn completely. Possible sources are unvented kerosene and gas space heaters, leaking chimneys and furnaces, gas water heaters, wood stoves and fireplaces, exhaust from vehicles and fueled engines in closed garages or buildings.

Low levels of carbon monoxide can cause flu-like symptoms: headaches, dizziness, weakness, and fatigue. Higher levels can cause nausea, irregular breathing, mental confusion, unconsciousness, and even death.

Prevent carbon monoxide poisoning by installing at least one carbon monoxide detector in your home near sleeping areas and by following these safety procedures:

- Have your furnace and heating system inspected and serviced each year.
- Never run your vehicle or other fueled engine in a closed area.
- Have your chimneys and flues cleaned by professionals.
- Make sure furnace burners and stove flames are blue, not yellow-orange, and never use a gas range or oven for heating.
- Never use grills or hibachis inside.
- Never operate gas-burning heaters or appliances in a closed room.

Respond to a carbon monoxide detector alarm by pressing the reset button. If anyone in the building is exhibiting any of the symptoms listed above, exit the premises immediately and call 911 (9-911 on campus). If no one feels symptoms, turn off all fuel-burning appliances, vent the home by opening windows and doors, and call a professional. Do not use the appliances until they have been checked by a qualified repair person.


Out with the Bad Air

Indoor air pollution is sometimes a concern in today’s workplace. Airtight construction meant to conserve energy may contribute to pollutants accumulating indoors. The table below lists some common pollutants found in workplace environments and their possible sources.

<table>
<thead>
<tr>
<th>Possible Indoor Air Pollutants</th>
<th>Possible Emission Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel combustion by-products (i.e., carbon monoxide)</td>
<td>• poorly-vented heating system&lt;br&gt;• parking garage or loading area</td>
</tr>
<tr>
<td>Chemicals (i.e., formaldehyde)</td>
<td>• building materials &amp; furnishings&lt;br&gt;• uncapped containers of solvents</td>
</tr>
<tr>
<td>Biological pollutants (fungi, molds, bacteria, or viruses)</td>
<td>• air conditioners&lt;br&gt;• damp soil&lt;br&gt;• water-damaged building materials</td>
</tr>
<tr>
<td>Tobacco smoke</td>
<td>L ventilation systems exposed to smoke.</td>
</tr>
<tr>
<td>Perfumes &amp; other personal care products</td>
<td>2. can contribute to overall accumulation</td>
</tr>
<tr>
<td>Dusts</td>
<td>• poor housekeeping&lt;br&gt;• outside pollution&lt;br&gt;• a process in the building</td>
</tr>
<tr>
<td>Sewer gases</td>
<td>• Lack of water in seldom-used drainpipe P-trap</td>
</tr>
</tbody>
</table>

Workplace air pollution can be reduced by:

- Arranging work areas so equipment and furniture do not block air ducts
- Storing all chemicals in covered containers to prevent vapors from escaping, or using less-harmful products
- Preventing dust, fungus spores, and other pollutants from build-up by keeping work areas clean
- Refraining from smoking in areas designated “no smoking”, near entrance doors, or near air intake fans. (Smoking is not allowed in WSU buildings, and is restricted to areas 25 feet from most entrances.)
- Pouring water in unused drains each week
Campus Fire Alarms

Ignoring fire alarms is an increasing problem at WSU. Whenever a fire alarm sounds, whether for an emergency, a fire drill, or even if it is a false alarm, the uniform fire code requires all persons to evacuate the affected building.

While some fire alarms heard on campus are accidentally activated (by work being done on the system or a system malfunction), routinely ignoring fire alarms can cost lives when a real fire occurs. By responding as if every alarm is real, you gain valuable practice that could someday save your life.

Identify potential escape routes from your area, then respond to every fire alarm by assuming the alarm is legitimate, evacuating the building immediately, meeting co-workers at a designated place a safe distance from the building.

Candles Cause Fires

State fire investigators reported two candle-caused fires in Utah elementary classrooms last spring. One fire was caused when a wire holding cloth flags broke, allowing the flags to drop onto an unattended lit candle. The resulting fire fed on surrounding books, papers, and other combustible materials. Wooden cabinets above the candle were also consumed. The remainder of the classroom sustained extensive heat and smoke damage. Estimated repairs: $120,000.

A second fire began when a large three-wick candle was left unattended on a thin wooden wall shelf. Lit sometime Thursday, the candle burned through the bottom or side of the candle shortly after midnight Friday. The shelf ignited, and flames spread up the wall, onto the desk below, then to wooden cabinets on an adjacent wall. Because the wooden door of the classroom was closed, the fire did not spread to the hallway. Estimated repairs: $100,000.

The WSU Fire Marshal discourages lit candles in buildings. The Uniform Fire Code prohibits burning of candles in assembly areas and in dining or drinking establishments.

Smoke Alarm Facts

Source: Ontario Fire Marshal
http://www.gov.on.ca/OFM/pubsafet/fasa.htm

Most fire deaths occur in homes where there are no working smoke alarms. Only a working smoke alarm can save your life.

Most fatal fires occur at night when people are asleep. A working smoke alarm will detect smoke and sound an alarm to alert you, giving you precious time to escape.

There are many types of smoke alarms with different features. The pause feature to reduce nuisance alarms is highly recommended.

One smoke alarm is not enough. Smoke alarms should be installed on every level of a home and near sleeping areas. Install alarms inside bedrooms where occupants sleep with doors closed.

Install smoke alarms on or near the ceiling because smoke rises. Avoid placing them in locations near bathrooms, heating appliances, windows, or ceiling fans.

Test smoke alarms every month, following owner’s manual instructions.

Install fresh batteries at least once per year. If the low battery warning sounds, replace the battery immediately. Daylight savings time changes are good times to replace batteries.

Gently vacuum alarms every six months using the soft bristle brush. Dust can clog a smoke alarm. If electrically connected, shut off the power and vacuum the outside vents only. Restore power and test unit when finished.

Smoke alarms wear out. Replace them every ten years, or sooner if they do not function properly.

Make sure everyone knows the sound of the smoke alarm and what to do if a fire occurs. Know two ways out of every room and have a pre-arranged meeting place outdoors. Regularly practice your home fire escape plan. Once out, stay out of the building and call the fire department from a neighbor’s home.
Chemical Resistant Glove Guidelines

Selecting the proper chemical resistant glove for each task is vital to the safety of the wearer. Latex gloves, while appropriate for medical use, do not provide adequate protection against most chemicals. Chemical resistance considerations include toxicity/corrosivity of the material being handled, the ability of the chemical to be absorbed into the skin, and the length and extent of exposure to the chemical. Other considerations include the dexterity needed and the thickness of the glove material.

Glove manufacturers perform tests for degradation, breakthrough time, and permeation rates with a variety of chemicals. Many glove manufacturers provide technical assistance in selecting the appropriate glove, as well as testing information.

Information on the table below can help you select the right glove for each job. If you have additional questions on glove selection contact Richard Sandau at 626-8004, or rsandau@weber.edu.

<table>
<thead>
<tr>
<th>Material</th>
<th>Recommended for</th>
<th>NOT recommended for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latex</td>
<td>Blood, some dilute alcohols, weak acids &amp; bases</td>
<td>Organics, corrosives, oils</td>
</tr>
<tr>
<td>Nitrile (exam style)</td>
<td>Intermittent contact formaldehyde, gluteraldehyde, bleach, hydrochloric acid, phosphoric acid, caustics</td>
<td>Ketones &amp; aromatics, chlorinated hydrocarbons, esters, nitric, sulfuric, &amp; organic acids</td>
</tr>
<tr>
<td>Nitrile (utility)</td>
<td>Contact with above, and aliphatic hydrocarbons, alcohols, oils, gasoline</td>
<td>Aromatic solvents, esters, some ketones, some chlorinated hydrocarbons</td>
</tr>
<tr>
<td>Butyl</td>
<td>Aldehydes, ketones, esters, glycol ethers, polar organic solvents</td>
<td>Aliphatic, aromatic &amp; chlorinated solvents</td>
</tr>
<tr>
<td>Neoprene</td>
<td>Oxidizers, acids, bases, alcohols, phenol, aniline</td>
<td>Chlorinated solvents</td>
</tr>
<tr>
<td>Viton</td>
<td>Aromatic, aliphatic, &amp; chlorinated solvents, alcohols</td>
<td>Some ketones, amines, &amp; esters</td>
</tr>
<tr>
<td>Silver Shield</td>
<td>Majority of solvents, acids &amp; bases.</td>
<td></td>
</tr>
</tbody>
</table>

Florida State University has a more detailed glove selection chart available online at http://ehs.sc.edu/gloves.htm.

Prevent Violence in Your Workplace

Violence has emerged as an important safety and health issue in today's workplace. Its most extreme form, homicide, is the second leading cause of fatal occupational injury in the United States. Nearly 1,000 workers are murdered, and 1.5 million are assaulted in the workplace each year. According to the BLS Census of Fatal Occupational Injuries, there were 709 workplace homicides in 1998, accounting for 12% of the 6,026 fatal work injuries in the nation.

Workplace violence is not limited to shootings. It also includes harassment, assaults, and sabotage of office equipment and files. Even if you have never encountered a hostile customer or employee, you should know how to prevent or react to an incident.

EH&S highly recommends workplace violence prevention training for employees who handle large amounts of cash, or regularly encounter angry or potentially hostile individuals. Employees who work in front office reception areas where they would be the first to meet irate individuals would also benefit from the training.

Contact Jolene Clark, Safety Specialist at 626-7823 or jclark3@weber.edu for any of the following:

- You would like to participate in a two-hour workplace violence prevention course
- You would like to arrange a course for those you supervise
- You would like your work space evaluated to show how to arrange it for maximum safety
EH&S Directory

Environmental Health & Safety exists under the Department of Public Safety. Chief Lee Cassity is the Director.

Office: fax 626-6319, mail code 3002

This list is designed to put you in touch with the person best able to answer your safety concerns.

Nancy Fox, Manager ................. 626-7233
EH&S oversight, Biological Safety, Indoor Air Quality

Jolene Clark, Safety Specialist/Industrial Hygienist
................................... 626-7823
General Safety, Workers Compensation, Asbestos, Ergonomics

Richard Sandau, Hazardous Materials Specialist
................................... 626-8004

Richard Ordyna, Safety Specialist ....... 626-7891
Emergency Response, Accident Investigation, Driving Certification

Roger Johnson, Fire Marshal ............. 626-7220
Al Muir, Asst Fire Marshal ............... 626-6907
Fire Safety

Marlene Peterson, Assistant .......... 626-7547
Field Trip Insurance, Certificates of Insurance

Rondo Jeffery, Radiation Safety Officer .. 626-6202
Radiation Safety

Lockout/Tagout

Lockout/Tagout is the procedure workers must follow to prevent unexpected start-up of equipment, or the release of stored energy during maintenance or servicing activities.

Failure to follow prescribed lock out/tag out procedures causes 100 injuries per day, and 120 deaths per year. A jolt from as little as 10 milliamps can stop your heart.

EH&S recently updated the university’s lockout/tagout program. This program requires workers to isolate equipment from its energy source, and to ensure it is rendered inoperative before performing any servicing or maintenance on that equipment. The program includes procedures that detail and document:

- energy control procedures
- employee training
- periodic inspections of the program

All campus employees who perform maintenance activities on equipment with energy sources are required to receive lockout/tagout training. By providing this training and reviewing WSU’s Lock Out/Tagout program annually, we expect to reduce the risk of injuries to our maintenance employees. If you would like a copy of the current WSU Lockout/Tagout program contact Jolene Clark.

What chemical hazards are in your work area?

Are you trained on chemical hazards? Do you know how to protect yourself? The answer to these questions should be, “Yes!”

The OSHA Hazard Communication Standard requires that employees receive training on the safe use and handling of chemicals, contact Richard Sandau at 26-8004 or rsandau@weber.edu.