Vol. 23 No. 3 October, 2006

TULANE UNIVERSITY OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY NEWSLETTER

SAFETY WAVE

Fire Prevention Week Focuses on Kitchen Fire Safety

Each year the National Fire Protection Association (NFPA) and fire departments throughout the USA observe Fire Prevention Week (FPW). This is usually done in the month of October to mark the anniversary of the 1871 Great Chicago Fire. This year FPW will be observed from October 8-14, 2006. Displays will be set up on fire prevention, and training on this subject will be presented to the Departmental Safety Representatives (DSRs) at their quarterly meetings to be held later in October. DSRs will then pass on the information on fire prevention to employees in their unit. Such training of employees by the DSRs will be in the form of distribution of handouts, review of training material, or the use of online training modules accessible via the internet.

For FPW 2006, the theme as presented by NFPA is kitchen fire safety. It is estimated that more than 100,000 reported home fires involve cooking equipment, mostly due to people not paying attention to their cooking. NFPA gives the following kitchen safety tips:

* Stay in the kitchen when you are frying, grilling, broiling or boiling food. Turn off of the stove if you must leave the area, even for a short period. When you are simmering, baking, or roasting food, check it regularly, stay in the home, and use a timer to remind you. When finished cooking, turn off all burners and ovens.
* Know how to use a microwave oven. Read the manufacturer's instructions. Never use an electrical extension cord on a microwave oven. Use only microwave-safe containers to heat food. Never use aluminum foil or metal objects in a microwave oven. Do not leave the microwave unattended. Allow food to cool for a minute or more before you remove it and use an oven mitt. If you have a fire in your microwave, turn it off immediately and keep the door closed. Never open the door until the fire is completely out.
* Open food containers slowly. Let food and liquid cool before you eat or drink it. Remember - the contents may be very hot even though the outside portion of the container can feel warm.
* For grease fires at home, always keep an oven mitt and a lid nearby. If a small grease fire starts in a pan, smother flames by carefully sliding the lid over the pan as you wear the oven mitt. Turn off the burner. Do not remove the lid until it is completely cool. Never pour water on a grease fire.
* For an oven fire, turn off the heat and keep the door closed to prevent flames from burning you or your clothing.

Please note that these and other tips on kitchen fire safety can be found in the NFPA pamphlet, "Prevent Cooking Fires, Watch What You Heat" to be distributed by OEHS.

Fire Plug

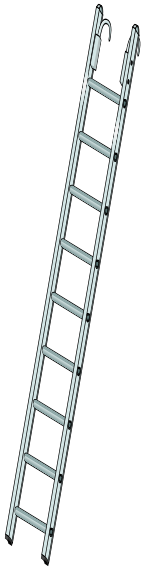
Throughout the city and on our campuses, we see cast iron fire hydrants which are connected to the public water supply for use by the fire departments for fire suppression. Have you ever referred to them as fire plugs? Do you know why? In the 1800's in the City of New Orleans, underground hollowed-out cypress logs were used to supply water for fire suppression. When a fire engine responded to a fire (the equipment at that time was either a hand drawn pumper or steam fire engine), the firemen would either know the location of the logs or refer to their map for the location. They would then dig down to the pipe and with a hand auger, drill a hole in the log. Water from the log would fill the hole, and the firemen would place their suction lines from the engines into the water-filled hole. This was their source of water for fire suppression. When finished, they would take a wooden plug and place it into the hole in the log to stop the flow of water. Thus the name "fire plug."

Great Chicago Fire

One of the largest conflagrations in US history was the Great Chicago Fire which occurred in 1871. Some say that the fire started when the O'Leary's cow knocked over an oil lantern in the barn. The Official Report of the Board of Police and Fire Commissioners Investigation which took place in November and December of 1871 revealed something different. The Commission found that the fire may have originated from a spark blown from a chimney on that windy night or it may have been arson. They could not determine the exact cause. The fire burned from the evening of October 8 to the morning of October 10, 1871 and destroyed or damaged about 2,150 acres of the city. The number of lives lost was 200. Property loss due to the fire was estimated at about $200 million. The number of buildings burned was between 17,000 - 18,000. The O'Leary's two story barn was destroyed, but their house was saved, and Chicago was re-built.

How to Respond to a Fire

If you discover a fire at Tulane, then you need to respond as per the acronym, **ESCAPE**.



E - Evaluate the situation and respond. You must act quickly.

S - Secure the area by evacuating persons inside the room and/or the immediate area.

C - Close the door to the room or the immediate area on fire. This is critical since by closing the doors to the area, you will be containing the fire. This increases the amount of time for evacuation and further reduces the risk of injury, loss of life, and property damage.

A - Activate the alarm. This is done by activating the nearest fire alarm pull station which is located in the hallway and near the stairwells or exits. Please note that some buildings may not have a fire alarm system. Such a system may not have been installed because it was not required due to the building's size and/or occupancy. Alert everyone in the immediate area. Use the term, "Code Red" or calmly say that there is a fire. Do not scream, "FIRE!" This may initiate a panic.

P - Phone the appropriate campus emergency number (Uptown Campus - 5200, TUHSC - 55555, TNPRC - 6411, other locations - 911) and tell police of the emergency. Provide them with details such as the location of the fire to include the building, room number or area, size of the fire, evacuation of special needs persons, etc. If special needs occupants such as hearing-impaired, vision-impaired, mobility-impaired, elderly, etc. need assistance in evacuation, then advise police of this. Be specific.

E - Extinguish the fire by using a portable fire extinguisher, if possible. The National Fire Protection Association (NFPA) says before fighting a fire, be sure that you have been trained to operate the extinguisher, you have an unobstructed exit route in case you can't put out the fire, and you know what's burning and that your extinguisher is right for the type of fire.

Fire Safety Checklist

Here are some things you can do to comply with fire safety regulations:

* Do not store within 18 inches of an automatic sprinkler head.
* Be sure EXIT signs are lit and easily visible.
* Be sure fire extinguishers are being inspected monthly (tags are dated with last inspection date).
* Do not prop hallway or stairwell doors open.
* Do not block fire extinguishers, strobes, exit signs or other fire equipment.
* Do not store items in the hallways - this can prevent egress in an emergency.
* Be familiar with the Emergency Action Plan for your area.

New OSHA Hexavalent Chromium (CrVI) Standard

The Occupational Safety and Health Administration (OSHA) has issued a final standard on hexavalent chromium (CrVI). The new standard lowers the permissible exposure limit (PEL) for all CrVI compounds from 52 to 5 micrograms of CrVI per cubic meter of air as an 8-hour time-weighted average. Hexavalent chromium compounds are used in the chemical industry as ingredients and catalysts in pigments, metal plating, and chemical synthesis. CrVI can also be produced when welding on stainless steel or CrVI-painted surfaces. The major health effects associated with exposure to CrVI include lung cancer, nasal septum ulcerations and perforations, skin ulcerations, and allergic and irritant contact dermatitis.

OEHS will be sending out surveys to those departments which have included hexavalent chromium compounds on their chemical inventory or those which may do welding on stainless steel. The purpose of the survey is to determine if exposure levels will need to be monitored. If you feel that you may be overexposed to hexavalent chromium and would like more information, please contact Pam Fatland at (504) 988-2800, Susan Welch at (504) 988-3996, or Kim Chapital at (504) 988-2870.

Teflon-Coated Surface Protection

Tired of deteriorating and hard to clean surfaces in your lab? Consider using a Teflon-coated material that is available from Fisher Scientific which can protect your benchtop, fume hoods, tables, splash screens, walls of spray booths, and other lab surfaces. Made from a polymer film bonded to a support backing of vinyl or aluminum, this material can adhere to a surface much like contact paper lining a shelf. The material helps protect surfaces against absorption of toxic or radioactive chemicals, corrosive chemicals, paint, oil, grease, and sticky substances. It is easily cleaned with a damp sponge and can be cut to size easily. For more information, go to the Fisher Scientific website, www.fishersci.com and do a product search for "Teflon surface protector."

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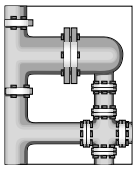
DO NOT Dispose of Chemicals Down the Drain



During the month of September the OEHS HAZMAT team responded to several incidents involving hazardous chemicals. Please remember that in addition to regulatory fines, improper disposal of chemicals can also result in possible injuries as well as damage to property and equipment. Pipes in many of our buildings are very old and are not always in the best condition. Heavy metals such as mercury do not just go away by themselves. If plumbers work on a pipe, the heavy metals that may have been put down the drain many years ago by an unknown person are still there and can easily spill out. Before putting anything down the drain, be sure you have written permission from OEHS, ensuring that OEHS is aware of the material, the quantity, the concentration, and any other pertinent information relating to the material. OEHS will check on the regulatory status of the chemical and let you know in writing if the material can be disposed down the drain or if it must be collected. Anything that does go down the drain must have a neutral pH BEFORE being put down, and other regulatory or required conditions must be met before approval will be given by OEHS. Some feel that if they put an acid or caustic material down a sink with a bit of water, everything will be fine. While it may make it through the drain in your area, the material may still corrode a pipe somewhere down the line sending an innocent worker several floors below you to the hospital. A corroded pipe may also cause property damage such as damage to carpets, flooring, furniture, equipment, etc. So avoid possible regulatory fines, be considerate of others, and do the right thing. Dispose of your chemicals properly. Bruce McClue, Hazardous Waste Supervisor, can be reached at (504) 988-2865 or email him at bmcclue@tulane.edu for any questions regarding disposal of hazardous chemicals. He offers the following tips:

What can you pour down the sanitary drain? Consumable products such as soda pop or coffee can go down the drain. Be sure to use and dispose of household chemicals according to manufacturer's specifications. Rinse-water generated from washing brushes and tools used to apply latex paint can be discharged to the sanitary sewer. Other chemical products may interfere with the wastewater treatment process. If you have unwanted or excess chemicals, please contact OEHS for information on proper disposal procedures.

Are there any wastewater disposal considerations when working outside the building? Yes. Do not pour anything down the drains outside the buildings. These drains are connected to the storm water system which drains directly to local waterways. When working outside, be sure to collect ALL paints, chemicals, and materials and call OEHS for disposal.

What should be done with photo processing wastes? Spent fixative, spent developer, and other used chemicals should be collected for disposal by OEHS. Wash-water generated from photo processing contains silver and other chemicals. Improper disposal of this waste can damage building piping. Even small quantities of metals in the wash-water can be harmful to the water treatment systems. If your dark room does not have silver recovery, collect the processing wastewater that contains silver during photo development and then call OEHS for proper disposal. With pretreatment systems, silver can be recovered from the photo development wash-water prior to draining. Metal recovery companies can supply silver recovery systems, provide maintenance, and remove the collected silver on a routine basis. Call OEHS for more information regarding silver recovery.

How does one prevent clay from plugging the drain? Most art studios have sediment traps installed beneath their sinks. These traps prevent sediment from being flushed down the drain by allowing it to settle out. Sediment traps should be cleaned regularly to keep them working properly.

What should I do with acids and bases? The sanitary sewer will accept discharges that have a pH between 5 and 10. Use pH paper to determine whether or not your waste falls within that range. If not, collect it for disposal by OEHS. Contact OEHS for information regarding acid/base neutralization.

Are there concerns regarding work with metals? Yes. Even small quantities of heavy metals such as cadmium, lead, or mercury in wastewater can be harmful to the storm drain and sanitary sewer system. Sediment traps can be used to collect metals.

What are the disposal requirements for paints, dyes, and glazes? Watercolors, acrylics, and latex paints can be rinsed down the drain when washing brushes and other tools used to apply them. The sanitary sewer should not be used to dispose of the unwanted paint. Excess, unwanted paint should be offered for use elsewhere on campus. If it can't be used, let acrylic or latex paint dry out, or mix the unwanted paint with kitty litter to solidify it. Then dispose of the paint in the regular trash. For oil-based paint, enamels, lacquers, and aerosol spray paints, contact OEHS for disposal.

Appropriate Clothing

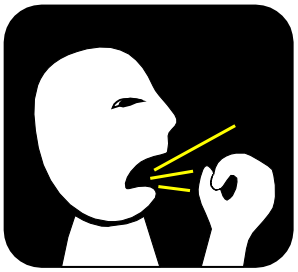
Do you dress appropriately for your job? While fancy dress clothes (i.e., coat and tie) are nice, many of us need to pay attention to the task we will be doing and dress accordingly. For example, if you work with chemicals in a laboratory you should never wear sandals, flip-flops, shorts, or clothing exposing a bear midriff. If you work around machinery, you should avoid wearing a tie, loose clothing., or dangling jewelry. If you do a lot of walking or standing,, avoid high heels and uncomfortable footwear. Dress appropriately for what you will be doing, wear protective clothing such as eye/face protection and gloves when needed, and lastly, be sure to include your Tulane ID card when assembling your wardrobe. This is important for security purposes and identifies you as a member of the Tulane community.

Safety Tidbits on the Web

* According to current guidelines, the effects of background radiation from computers is negligible. (For more information, visit the National Safety Council website at www.nsc.org/issues/radisafe.htm.)
* A computer monitor filter reduces glare, protects your screen, and enhances contrast to what you are viewing. Most importantly, a filter helps prevent eyestrain, which is one of the most common sources of discomfort in a workplace. (This statement was extracted from the 3M's website: www.3m.com/us/office/myworkspace/monitor_sol.html.)
* OSHA has a checklist to help you create a safe and comfortable computer workstation. It is available at www.osha.gov/SLTC/etools/computerworkstations/checklist.html.
* A NIOSH Publication titled "Easy Ergonomics: A Guide to Selecting Non-Powered Hand Tools" includes a checklist to help you choose the best available ergonomically designed non-powered hand tool. Selecting the best tool will help you reduce your risk of a musculoskeletal disorder such as carpal tunnel syndrome, tendinitis, or muscle strain. It is available at www.cdc.gov/niosh/docs/2004-164/default.html.
* The Centers for Disease Control and Prevention provides information on public health topics of recent public interest such as the recent *E. coli O157:H7*outbreak involving pre-packaged spinach. See http://www.bt.cdc.gov/recentincidents.asp.

Prevent the Spread of Germs

With flu season nearing and talk of a possible pandemic, one of the most important things you can do to prevent the spread of disease is to develop habits that reduce the spread of germs. Practice the following:



* Cover your mouth and nose with a tissue when coughing and sneezing. Throw the tissue away when done and wash your hands. Avoid coughing or sneezing directly into your hand. It is now suggested that if you do not have a tissue, you should cough or sneeze into the crook of your arm instead of your hand to prevent spreading germs to others.
* Wash your hands often with soap and water. When hand washing is not possible, use antiseptic hand gels.
* Stay at least three feet away from people who are coughing or sneezing.
* Always practice good hand washing after contact with an ill person or soiled materials such as tissues.
* Stay at home when you are sick. Keep your children home when they are sick.
* Keep non-perishable food and essential household items on hand to minimize trips to stores and other crowded places when you are sick.

An influenza pandemic could have a great effect on our communities. Many people could become sick at the same time and be unable to go to work. Others may need to stay home to care for sick family members. Schools and businesses could close to reduce the spread of disease. Large group gatherings could be cancelled. These are examples of challenges that are being considered by the federal, state, and local governments as they plan for a pandemic response. For more information see www.pandemicflu.gov.

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