In this issue of the Environmental Health and Safety (EHS) Listserv – July 24, 2019

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1. Did You Take the Required EHS Training?

There are two training courses required for all who get a paycheck at UNL, regardless of type of employment:

- **Core-Injury and Illness Prevention Plan (IIPP)**
  Goal: Inform employees about the IIPP, which provides a framework for identifying and mitigating hazards at UNL, thereby creating the foundation for the overall occupational safety program for UNL employees.

- **Core-Emergency Preparedness**
  Goal: Raise awareness to minimize potential for adverse effects to humans, property, and the environment associated with natural or man-made emergency situations.

For those who work with any chemicals there is an additional requirement:

- **Chemical Safety**
  Goal: Ensure that persons who work with chemicals are knowledgeable of associated hazards and how to protect themselves and the environment. There are two training tracks, the first designed for persons who work with a wide range of varying chemicals, such as laboratorians. The second track is for persons who work with relatively few chemicals, such as artists or custodians.

Track 1: This training track consists of four modules and should be taken by all for whom the Track 2 option is not applicable. All modules must be completed.

Track 2, Targeted Chemical Safety training. Different modules have been developed for persons working in specific areas. Chemical safety training consists only of the single module that is specific to the work assignments of

the individual. Options include the following targeted modules: Custodial Services; Housing and Dining Services; Housing Custodial Operations; Facility & Grounds Maintenance Operations; Visual & Performing Arts.

The above training must be supplemented by training specific to hazards the employee may encounter at work. Refer to the ***Training Needs Assessment for EHS-Related Topics*** (http://ehs.unl.edu/Training_Needs_Assessment.pdf), designed to help employees identify additional training they may need to work safely and in compliance with regulatory requirements.

Unsure what you have taken already? Go to the EHS web-based training site https://ehs.unl.edu/web-based-training. To review EHS training you took previously, after you login, click the button under your name called "Training Records" to view your personal training list.

For questions call 402.472.4925 or email ehs@unl.edu.

2. NEW Video Resources

EHS now has available a new type of resource in addition to Safe Operating Procedures, past Listserv articles, Safety Posters, etc. Available under "Training" on the EHS website's red tab are Video Resources (https://ehs.unl.edu/video-resources). Video resources are provided as additional information or clarification on a variety of topics. The two currently available are biosafety-related:

- **Autoclave Operation and Performance Testing** which demonstrates proper use of autoclaves for effective decontamination.
- **Biosafety Cabinets** which demonstrates proper operation, use and care of biological safety cabinets.

Over time there will be more video resources available on a variety of topics.

3. Electrical Near Misses

Since we all use electricity all the time it is easy to dismiss/ignore hazards that are associated with electricity, electrical appliances, power strips and extension cords. Following are a few near misses to bring hazards and safe use practices to mind:

Extension cord, power strip/surge suppressor & space heater…O My!
At UNL this winter there was an incident in a university building that could have easily led to a room/building fire but did not. An individual was using a space

heater plugged into a surge protector, plugged into another surge protector, plugged into an extension cord that ran across the room. The two surge protectors melted together and a plug showed clear overcurrent damage (image below). Luckily this situation was found shortly thereafter by another worker, averting serious damage to the room or building. Following are guidelines that would have prevented the 'near miss:'

- Extension cords are to be used only on a temporary basis. When used on a temporary basis the rating of the cord must be sufficient for the item being powered.
- Power strips/surge suppressors are to be plugged directly into a permanently installed outlet and NEVER powered by another power strip or an extension cord.
- Power strips/surge suppressors are designed for low-power applications only, not to power heating appliances or other high amperage devices such as space heaters, coffee/tea pots, microwaves, refrigerators, etc.
- Make sure power strips are UL-listed. Many colored power strips/surge suppressors such as that shown are imported and do not have a UL-listing.

Deadly home fire could be a work fire!

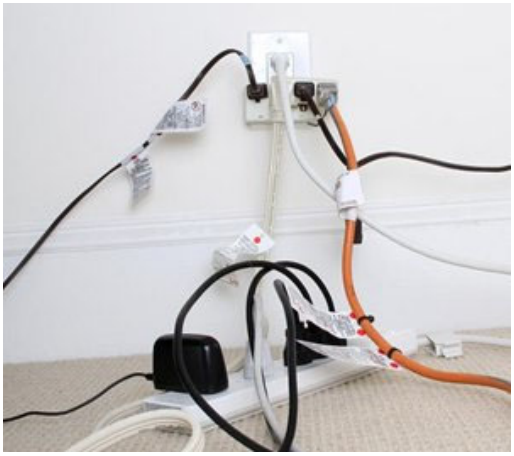
In March of this year four people died in a house fire in a Nebraska small town from smoke inhalation following an electrical fire. The fire started due to an electrical failure in an extension cord. Extension cords are often ignored as a potential hazard or misused. In addition to the safety precautions noted in the incident above, extension cords:

- Should not run under furniture or rugs or through walls/doors, etc.
- Always use 3-wire extension cords with a three-prong plug. Never remove the ground prong to make the plug fit into an older outlet.
- The cord should be in good condition. Disconnecting any cord from an outlet by pulling on the cord instead of grasping the plug can lead to exposed wires.
- Extension cords should be UL-listed.
- Inspect extension cords for damage prior to each use.
- Never use nails or staples to secure an extension cord to a surface.

According to the U.S. Fire Administration common causes of electrical fires are:

- Faulty outlets and old, outdated appliances and faults with appliance cords. Never use an appliance with a worn or frayed cord.
- Light fixtures, lamps and light bulbs with wattage too high for the fixture. Check the maximum recommended bulb wattage and never go over the recommendation.
- Extension cord misuse. Extension cords are only for temporary use.
- Space heaters too close to combustible surfaces.
- Wiring that is outdated or outdated breaker boxes with worn connectors.

Don't let this be YOUR workplace outlet use!



Resources

- ***General Electrical Safety*** SOP https://ehs.unl.edu/sop/s-electricalsafety.pdf
- ***General Electrical Safety*** Web-Based Training https://ehs.unl.edu/web-based-training#ElectricalSafety

- "5 Common Causes of Electrical Fires." *FireRescue1*, FireRescue1 Staff, 18 July 2019, www.firerescue1.com/fire-products/fire-safety-for-children/articles/1206100-5-common-causes-of-electrical-fires/.

4. NEW Safety Poster: Too Many Wires Cause Electrical Fires

EHS has developed a number of safety posters of relevance to the campus community. Improper use of power strips/surge suppressors and extension cords are a common cause of fires. Check your work areas to ensure you aren't using "too many wires!" Get posters to post in your department/area/facility as a visual reminder of safe use of extension cords and power strips.

Order your FREE poster(s) today. Contact ehs@unl.edu or 402.472.4925 with your name, campus mailing address, and quantity desired.

Resources

- Safety Posters http://ehs.unl.edu/safety-posters

5. Safety Shorts – Electrical Safety

This series features links to short safety resource(s) each month. Provided this month are resources related to electrical safety, including safe use of extension cords and power strips:

- **ELECTRICAL SAFETY VIDEOS** (HSE SAFETY OFFICER ENGINEERING TRAINING URDU VIDEOS 10:24 minutes) https://www.youtube.com/watch?v=bTXv4F-0fQE

- **Extension Cord Safety Virtual Demonstration** (Electrical Safety Foundation International (ESFI) 2:13 minutes) https://www.youtube.com/watch?v=VmWlka-SG1o&t=19s

- **Are Power Strips Safe?** (Chris Pirillo 2:58 minutes) https://www.youtube.com/watch?v=jKVDupwshIk

- **What to never plug into a power strip** (KPRC 2 Click2Houston 1:04 minutes) https://www.youtube.com/watch?v=DgNfVb5oWng

NOTE: Resources are provided for informational purposes only. Publication does not in any way endorse a particular company or product or affect current UNL policies and procedures.

6. Stormwater Dewatering on UNL Campuses

The University of Nebraska-Lincoln (UNL) is considered an operator of a Small Municipal Separate Storm Sewer System (SMS4) and is required to maintain a permit issued by the Nebraska Department of Environmental Quality (NDEQ).More information about the permit and the storm water management program can be found on UNL's Stormwater Management Plan website.

During or after precipitation events it may be necessary to remove storm water or accumulated floodwater from areas around campus. When dewatering any area of storm water at UNL the discharge must be void of color, turbidity, odors, surface sheens, films, or other unusual conditions (e.g., off-gassing, foaming, etc.).

The water may not be discharged if pollutants are detected and/or the water accumulation is attributed to groundwater. Contact Environmental Health and Safety if any pollutants are visible/suspected, groundwater is present, or the discharge is related to a construction activity. If the only source of the discharge is storm water, and meets the criteria stated above, use these 3 options in order of priority to complete the dewatering.

1) Direct the water to a Sanitary Sewer (best option but often times difficult to achieve).

2) Direct the discharge towards vegetation for land application wherein no water discharges to the storm drain (attempt to infiltrate the storm water into the ground through vegetated areas).

3) Direct the flow to the storm drain under the authority of UNL's SMS4 permit. Use best management practices to minimize and prevent the discharge of pollutants.

Contact Patrick Boulas, EHS Environmental Specialist (pboulas2@unl.edu or 402.472.2212), if you have storm water-related questions or concerns.

Resources

- **Stormwater Management Plan** https://ehs.unl.edu/stormwater-management
- **Dewatering** Safe Operating Procedure https://ehs.unl.edu/sop/s-dewatering.pdf

7. Was It a Near Hit?

EHS and the Chancellor's University Safety Committee encourages reporting of near-miss/close call incidents and potentially unsafe conditions (e.g., unsafe acts, equipment defect, etc.) in the workplace so that contributing factors can be identified and abated before they result in personal injury/illness or property damage.

A near miss is an incident where no property was damaged and no personal injury sustained, but where, given a slight shift in time or position, damage and/or injury or illness easily could have occurred. It can be thought of as a "close call." Looking at the situation from another viewpoint…it can be thought of as a "near hit!"

Identifying such a situation represents a "Good Catch" that just might save you or a co-worker from injury! By reporting these circumstances, you are contributing to a safer and healthier campus environment. Information reported is shared throughout the University for educational/awareness purposes with specific identifying information (e.g., names, departments, etc.) redacted. EHS appreciates your participation and assures you that there is no risk of repercussions for reporting a situation or hazard.

To support this effort, a "*Near Miss/Close Call Incident Reporting Form,*" https://ehs.unl.edu/near-missclose-call-incident-reporting-form) is available on the EHS website. To help you spread the word in your department/area/facility EHS has developed business-card size handouts containing the URL for reporting. Please consider requesting a number of these Near Miss/Close Call

reporting informational cards. To request any quantity of these business-card size handouts contact EHS at 402.472.4925 or ehs@unl.edu.

Resources

- *Near Miss/Close Call Incident Reporting Form*
  https://ehs.unl.edu/near-missclose-call-incident-reporting-form

8. Revised Safe Operating Procedures

- ***Chemical Disinfectants for Biohazardous Materials***
  https://ehs.unl.edu/sop/s-bio-disinfectants.pdf
  Revised to provide updated guidance about shelf life and stability of chlorine-based disinfectants. Similar guidance has been added for oxidizing agents. New sections added describing acceptable disinfectants for human materials and about disinfectant container labeling, selection and preparation of disinfectants as well as proper disposal of expired disinfectants**.** Two new references were added. The disinfectant comparison table was updated and moved to the last page of the document. Please be sure to review this document for changes that may affect disinfectant use in your lab.

- ***Grain Bin Safety*** https://ehs.unl.edu/sop/s-grain_bin_safety.pdf
  New introduction with information on the importance of grain quality, planning ahead for bin entry and grain bin rescue plans. Entanglement hazards were updated to reflect use of downward augers and stirrers inside bins as well as referencing the "Guidance for Sweep Auger Operations in Grain Bins" publication available from the National Grain and Feed Association.

- ***Skid Steer Loaders*** https://ehs.unl.edu/sop/s-skidsteer.pdf
  Included the need for Falling Object Protective Structures (FOPS) on skid steer loaders used at UNL. Updates to "Operations" to reflect current control interlock systems, use of skid steer loader attachments, and evaluation of potential worksite hazards.

Remember...SAFETY IS AN ATTITUDE!

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