In this issue of the Environmental Health and Safety (EHS) Listserv – April 7, 2021

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1. Severe Weather Awareness

Whether you work on campus or in the field, do you know what to do in the event of severe weather? Unless you've recently taken the EHS web-based ***Emergency Preparedness*** training, now would be a good time to review that online module and related resources including UNL's Emergency Planning and Preparedness website.

A number of areas have established Emergency Action Plans. Does your building have one? If not, now might be a good time to set one up. You can download a template from UNL's Emergency Preparedness website. Assistance/consultation regarding completion is only an email away, by contacting preparedness@unl.edu. If your area does have an Emergency Action Plan, review it now to be sure you are familiar with the components.

The EHS Safe Operating Procedure ***Communication of Work Area Safety Information*** contains a checklist with various items including a section on "Emergency Preparedness." The checklist assists both workers and supervisors by identifying relevant action items for new/current workers.

The National Oceanic and Atmospheric Administration, the National Weather Service, and Occupational Safety and Health Administration have a number of useful resources covering a variety of weather hazards.

Resources

- EHS web-based ***Emergency Preparedness*** training https://ehs.unl.edu/web-based-training#EP
- UNL Emergency Planning and Preparedness website https://emergency.unl.edu/
- National Weather Service Lightning Safety Tips and Resources https://www.weather.gov/safety/lightning

- OSHA Factsheet "*Lightning Safety When Working Outdoors*" https://www.osha.gov/Publications/OSHA3863.pdf
- NOAA "*The Online Tornado FAQ*" https://www.spc.noaa.gov/faq/tornado/
- Great ShakeOut Earthquake Drills https://www.shakeout.org/dropcoverholdon/
- EHS Safe Operating Procedure ***Communication of Work Area Safety Information*** https://ehs.unl.edu/sop/s-workareasafety.pdf

2. Safety Shorts – Be Prepared

This series features links to short safety resource(s) each month. Provided this month are resources related to various types of severe weather:

- **Really Obvious: Storm Ready** (University of Nebraska-Lincoln, 1:02 min) https://www.youtube.com/watch?v=I00p4x5U5W4

- **Really Obvious: Lightning** (University of Nebraska-Lincoln, 0:50 min) https://www.youtube.com/watch?v=Ead_BI8jlJ4

- **Really Obvious: ShakeOut** (University of Nebraska-Lincoln, 0:44 min) https://www.youtube.com/watch?v=XaWcsTIyGHU

- **Really Obvious: Tornado Shelter** (University of Nebraska-Lincoln, 0:55 min) https://www.youtube.com/watch?v=0vZesn-otLs

- **Really Obvious: Tornado Tips** (University of Nebraska-Lincoln, 0:51 min) https://www.youtube.com/watch?v=bLxD5velljo

NOTE: Resources are provided for informational purposes only. Publication does not in any way affect current UNL policies and procedures.

More "Really Obvious" topics are available at: https://www.youtube.com/results?search_query=unl+emergency+preparedness+really+obvious

3. Safety Hazard Walkaround

What is a safety hazard walkaround? It's simply a tour of your work area(s) with an eye to safety. This is similar to the safety audits conducted periodically by Environmental Health and Safety staff and perhaps by your Department or Safety Committee…but done by YOU. There are three parts:

- Pre-inspection. This step focuses on areas where hazards have been identified. Be sure to wear appropriate Personal Protective Equipment.
- Onsite inspection. Look for observable hazards first. Talk to employees in their work area, encourage conversation and observe as workers perform their job.
- Post-inspection. Soon after inspection, prepare a plan to correct hazards found and a timeline for implementation.

Demonstrate a commitment to safety in your work area by conducting a safety hazard walkaround.

Resources

- "Time for a Safety Walkaround." *Safety+Health Magazine*, Safety+Health Magazine, 17 Feb. 2021, www.safetyandhealthmagazine.com/articles/20872-time-for-a-safety-walkaround?utm_source=march1st&utm_medium=email&utm_campaign=inThisIssue.
- EHS Safe Operating Procedures, **Safety Audit Guidelines** https://ehs.unl.edu/sop/safety-audit-guidelines

4. 3D Printing Safety

3D printing is an additive manufacturing technology that has experienced widespread growth across numerous industries in recent years. 3D printers create three-dimensional (3D) objects via computers. A computer file "tells" the 3D printer what object to create and how. 3D printers essentially stack layers of a material to get the desired product.

Despite its popularity, 3D printing is still a relatively new technology. Some printers use high temperatures, some use ultraviolet light, and others use lasers. 3D printers use different materials. 3D printing is used in a wide variety of settings and research areas.

Potential hazards include breathing in toxic particles; skin contact with harmful substances; and static, fire and explosions. The National Institute for Occupational Safety and Health (NIOSH) provides many ways to stay safe when using a 3D printer. A few are:

- Limit equipment access to trained or authorized personnel.

- Use enclosures for 3D printers and ventilation to capture chemical emissions.
- Use materials with lower emissions.
- Reduce time spent near the printer while it is running.
- Train workers on potential hazards and how to protect themselves.
- Wear appropriate personal protective equipment, such as safety glasses, gloves, or lab coats.

Ways to reduce exposure depend on the type of printer and materials used. NIOSH provides resources specific to both working with metal powders and printing with filaments, including a poster for each with "Health and Safety Questions to Ask" as a quick reference/reminder for workers.

Resources

- "3D Printing and Worker Safety." *Safety+Health Magazine*, Safety+Health Magazine, 19 Jan. 2021, www.safetyandhealthmagazine.com/articles/20753-d-printing-and-worker-safety?utm_source=safetytips-topic&utm_medium=email&utm_campaign=topic
- 3D Printing with Filaments: Health and Safety Questions to Ask (poster) https://www.cdc.gov/niosh/docs/2020-115/pdfs/2020-115.pdf?id=10.26616/NIOSHPUB2020115
- 3D Printing with Metal Powders: Health and Safety Questions to Ask (poster) https://www.cdc.gov/niosh/docs/2020-114/pdfs/2020-114.pdf?id=10.26616/NIOSHPUB2020114

5. Situational Preparedness – Distracted Driving Awareness Month

Situational preparedness is so important that we will be looking at various aspects over time, as well as providing resources to assist you to "be prepared" for whatever situations you may encounter while driving, bicycling or walking.

The National Safety Council (NSC) promotes safe driving year around but provides a special emphasis during April as Distracted Driving Awareness Month. According to the NSC, motor vehicle deaths in 2020 are estimated to be the highest in 13 years, a 24% spike despite miles driven dropping 13%.

Commit to driving distraction-free by taking the NSC Just Drive Pledge to:

- NOT have a phone conversation while driving – handheld, hands-free, or via Bluetooth
- NOT use voice-to-text features in the vehicle's dashboard system
- NOT use Facebook, Twitter, Instagram, Snapchat, TikTok, YouTube, Vimeo or other social media

- NOT check or send emails
- NOT take selfies or film videos
- NOT input destinations into GPS while the vehicle is in motion
- NOT call or message someone else when you know they are driving

Sign up with the NSC to receive Distracted Driving Awareness Month materials. The FREE downloadable materials include posters, a fact sheet, infographics, social media posts and more that you can share with others to encourage them to also "Just Drive."

Resources

- NSC Distracted Driving Awareness Month https://www.nsc.org/road-safety/get-involved/distracted-driving-awareness-month
- NSC Just Drive Pledge https://cloud.safe.nsc.org/ddam-pledge
- NSC Get Your Distracted Driving Awareness Month Materials https://cloud.safe.nsc.org/ddam
- "Motor Vehicle Deaths in 2020 Estimated to Be Highest in 13 Years, Despite Dramatic Drops in Miles Driven." *National Safety Council*, 4 Mar. 2021, www.nsc.org/newsroom/motor-vehicle-deaths-2020-estimated-to-be-highest.

6. 2020 Annual Stormwater Report

EHS recently submitted the 2020 Annual Stormwater Report to the Nebraska Department of Environment and Energy (NDEE) and is now soliciting feedback from the campus community.
The 2020 Annual Report is available for your review at https://ehs.unl.edu/SW_Annual_Report_2020.pdf. The most current Stormwater Management Plan is on the EHS Stormwater Management web page: https://ehs.unl.edu/stormwater-management.

Comments on either the 2020 Annual Report or the Stormwater Management Plan can be directed to EHS using the "Submit Comments" link on the Stormwater Management web page.

7. Your Opinion?

Do you have an opinion on your interactions with EHS personnel? Environmental Health and Safety is committed to excellent customer service and offers a *Customer Satisfaction Survey* as an easy method for the campus community to provide feedback on our services and staff. By taking a few moments to complete the survey (http://ehs.unl.edu/survey), you will be helping us to identify areas where we might need to focus our attention or areas in which we are doing particularly well.

Please provide specific information or examples and your name and contact information. The Director, Brenda Osthus, follows up on all submissions. We greatly appreciate your participation.

Please feel free to contact Brenda Osthus, EHS Director, at 402.472.4927 or bosthus1@unl.edu if you would rather communicate with her directly.

8. Was It a Near Miss?

The Chancellor's University Safety Committee (CUSC) is reaffirming their goal to focus more intensely on Near Miss/Close Call reporting and to also encourage reporting of unsafe practices. To support that effort, the EHS "*Near Miss/Close Call Incident Reporting Form"* allows for reporting of unsafe practices.

By reporting all of these circumstances, near misses or unsafe practices, you are contributing to a safer and healthier campus environment. Information reported is shared throughout the University for educational/awareness purposes. Specific identifying information (e.g., names, departments, etc.) is not included in informational publications. Participation will benefit the entire campus community. Be assured that there is no risk of repercussions for reporting a situation or hazard.

A "near miss" can also be viewed as a "near hit!" Next time you see something and think, "This could have ended up very badly," report that online to help your fellow workers throughout the university stay safe.

Resources

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

9. Revised Safe Operating Procedures

- **241 Am (Be) Neutron Probe**
  https://ehs.unl.edu/sop/SP_SOP_241Am%28Be%29NeutronProbe_6.pdf
  Revised shipping papers area, updated emergency phone numbers, and added image in Troxler gauges section.

- **Autoclave Operation and Use**
  https://ehs.unl.edu/sop/s-bio-autoclavesafety.pdf
  Updated to provide additional clarification and guidance on biohazardous waste cycle parameters. Added new section about actions to take in

case of autoclave malfunction, the need for performance testing after repair, and how to request a biological indicator for that test.

- **Autoclave Performance Testing**
  https://ehs.unl.edu/sop/s-bio-autoclave_performance_testing.pdf
  Added new section on performance testing following autoclave malfunction and repair.

- **Chemical Disinfectants for Biohazardous Materials**
  https://ehs.unl.edu/sop/s-bio-disinfectants.pdf
  Updated table of microbial resistance to chemical disinfectants. Added a warning to review Safety Data Sheet for all chemical disinfectants used and added a warning about peracetic acid disinfectants. Added a reference table for chemical inactivation of biological toxins.

- **Disposing of Biohazardous Materials including Recombinant and Synthetic Nucleic Acids**
  https://ehs.unl.edu/sop/s-bio-dispose.pdf
  Added explicit mention of any pathogen and biological toxin to the list of materials considered a "Biohazard." Added clarification in "on-site autoclaving" section to specify that runs must be repeated if they abort during the cycle or don't achieve desired performance parameters. Added specific guidance about autoclaving biological toxins and minimum cycle parameters.

- **Electrophoresis Safety**
  https://ehs.unl.edu/sop/s-electrophoresis_safety.pdf
  Revised to use consistent terminology throughout and added image of a standard electrophoresis system. Users directed to Safety Data Sheets for chemicals used in electrophoresis. A statement added about required PPE for operating electrophoresis apparatus.

- **Use of Diagnostic X-Ray Equipment in the Healing Arts**
  https://ehs.unl.edu/sop/s-diagnostic_x-ray_equip.pdf
  Additions and updates per revised state rules on equipment, who can perform veterinary x-rays, and log completion. Revisions in general to make content clearer and more concise. Revised the Records section regarding records older than 5 years.

THINK SAFETY – DON'T LEARN BY ACCIDENT!

Environmental Health and Safety
University of Nebraska-Lincoln
3630 East Campus Loop
Lincoln, NE 68583-0824
402.472.4925
http://ehs.unl.edu