

In this issue of the Environmental Health and Safety (EHS) Listserv – March 5, 2025

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1. CUSC Open Forum Meeting Invitation

The Chancellor's University Safety Committee (CUSC) is a UNL committee established to assist the Chancellor by making recommendations of methods to reduce safety hazards at UNL. The CUSC charter, as well as links to the list of members, upcoming agenda, meeting dates/locations, previous meeting minutes, current year's goal and more are available online.

Twice a year the CUSC holds an Open Forum meeting to which the campus community is invited. The spring **Open Forum** meeting will be held in the Environmental Health and Safety Training room on East Campus and by Zoom. The meeting is from 3:00 – 4:00 p.m. on Tuesday, March 25, 2025. The campus community is invited to share concerns or just observe the workings of the CUSC. To attend, contact CUSC Administrative Support, ehowe2@unl.edu for the Zoom meeting ID and password.

While the CUSC is a university-level organization, there are a number of department-level safety committees across campus. If your department does not have a safety committee and you would like to explore possibilities, contact ehowe2@unl.edu for assistance.

Resources

- Chancellor's University Safety Committee
<https://ehs.unl.edu/safety-committees/chancellors-university-safety-committee-cusc/>

2. Focus on Grain Bin Safety

National Stand Up for Grain Safety Week is March 24-28, 2025, and a time to focus on grain bin safety. Since 2014, industry leaders and agricultural professionals have collaborated to raise awareness about grain bin dangers, provide education and share best safety practices for working in

and around grain bins. Working around grain bins presents unique and serious hazards about which farm workers must be constantly vigilant.

The following are some major hazards and mitigation strategies:

- **Hazardous atmosphere (oxygen deficiency, toxic gases, allergens).** Store only adequately dried grain to reduce spoilage. Keep insect/animal infestations to a minimum. Regularly clean bin. Observe all restricted entry requirements, including testing of the atmosphere prior to entry.
- **Fire/Explosion.** Accumulations of grain dust can create flammable/explosive atmospheres, so make sure ventilation systems are in good working order. Ensure grain dust accumulations are kept to a minimum with regular cleaning, especially near ignition sources. Ensure electrical connections meet code requirements.
- **Falls.** Working at heights in and around a grain bin poses a fall hazard. When performing tasks at elevated heights, fall protection is required.
- **Electrocution.** This hazard is often overlooked. An auger might come into contact with overhead wires while being moved unless locational awareness is maintained. Poles to dislodge crusted grain might contact overhead lines unless care is taken.
- **Entanglement.** Unguarded augers, PTOs, and other moving parts present an entanglement hazard, as does the sweep auger inside the bin. Ensure all equipment is properly guarded, avoid loose-fitting clothes, and do not operate the sweep auger while inside the bin.
- **Engulfment/Entrapment.** While loading/unloading operations present an obvious engulfment/entrapment hazard, stored grain itself is also dangerous. Air pockets can shift and cause stored grain to flow as if it were liquid. Do not enter grain bins during active loading/unloading. When possible, entry in the presence of grain should be conducted only when there is no alternative and then only while observing the following:
 - Grain is less than waist deep and applicable lockout/tagout procedures have been implemented to prevent grain addition, removal, or other movement.

- The atmosphere in the bin is not hazardous, adequate ventilation has been established, and no work to be conducted in the bin has the potential to create a hazardous atmosphere.
- A co-worker is present outside of the bin, verbal communication is maintained, and the co-worker has a readily available means of summoning emergency help.

Grain bin accidents have a tragic impact on individuals, families and entire communities. In 2023 the fatality rate of total grain entrapments was 59%. From 2022 to 2023 there was a 35.7% decrease in grain entrapments, which likely reflects increasing awareness of safety considerations. Watch out for yourself and those you are working with to prevent injury or death while working with grain handling and storage.

Resources

- Stand Up 4 Grain Safety. (2024, February 15). *Stand Up 4 Grain Safety - Stand Up 4 Grain Safety*. Stand up 4 Grain Safety -. <https://standup4grainsafety.org/>
- EHS SOP **Grain Bin Safety** https://ehs.unl.edu/sites/unl.edu.business-and-finance.university-operations.ehs/files/media/file/s-grain_bin_safety.pdf
- *Think grain bin safety – MyNSightOnline*. (n.d.). <https://www.mysightonline.com/resources/grain-safety>
- “Grain Bin Safety Week.” *AgriSafe Network*, 19 July 2021, <https://www.agrisafe.org/event/grain-bin-safety-week/>
- *Safety training » National Education Center for Agricultural Safety*. (n.d.). <https://www.necasag.org/safetytraining/>
- *Don't become a statistic: Grain bin safety tips | Integrated Crop Management*. (n.d.). <https://crops.extension.iastate.edu/blog/kristina-tebockhorst/don%E2%80%99t-become-statistic-grain-bin-safety-tips>
- NFU (National Farmers Union) Farm Safety video series https://www.youtube.com/playlist?list=PL0B_GIRKHw4tDAy8-Pn_w-8_7g8okjCA-
- *Grain Storage Resources*. (n.d.). Iowa Grain Quality Initiative. Retrieved March 3, 2025, from <https://www.extension.iastate.edu/grain/grain-storage-resources>

3. March = Ladder Safety Month

The American Ladder Institute (ALI) sponsors National Ladder Safety Month every March. ALI is the American National Standards Institute (ANSI) approved developer of safety standards for the ladder industry. Standards are technical specifications that prescribe rules governing the safe construction, design, testing, care, and use of various types of ladders.

According to the National Institute for Occupational Safety and Health (NIOSH) annually in the United States 500,000 people are treated, thousands suffer disabling injuries, and more than 300 people die from ladder-related injuries. Most ladder deaths are due to falls from 10 feet or less. Ladder/step stool fall injuries, a persistent hazard in the workplace and at home, are due to five major causes:

- Incorrect extension ladder setup angle. Approximately 40% of incidents result from a ladder sliding out at the base due to incorrect angle setup or unstable surface. The optimal angle is 75 degrees from the horizontal.
- Inappropriate ladder selection. Select a ladder with the proper duty-rating (maximum safe load) to avoid structural failure. The ladder should be the appropriate type and be made of the appropriate material for the task.
- Insufficient ladder inspection. Ladder integrity should be evaluated prior to each use. Defective ladders or step stools should be removed from use.
- Improper ladder use. Overreaching, carrying objects, applying excessive force, slips, and missteps lead to ladder-related injuries. Maintain awareness of position on the ladder/step stool when nearing the ground to avoid stepping off before being at ground level, a frequent cause of ladder/step stool fall injuries.
- Lack of access to ladder safety tools and information. Take training on safe use of portable ladders and step stools.

Training/information to decrease the likelihood of injury from all the items noted above is available through the EHS web-based training portal or through the American Ladder Institute. To assist workers using ladders,

NIOSH (National Institute for Occupational Safety and Health) has developed a free mobile application designed to improve extension and step ladder safety.

Finally, here are a few general tips:

- Stay off the ladder if you feel tired or dizzy.
- Don't use ladders outdoors during storms or high winds.
- Wear slip-resistant shoes to climb a ladder.
- Allow only one person on the ladder at a time and don't carry items in your hands that can interfere with your grip.
- Set up the ladders/step stools away from doors.
- Always face the ladder and maintain three points of contact (two hands/one foot, two feet/one hand for example).

If you use a ladder or a step stool, review the resources provided to ensure that you do not become a "statistic."

Resources

- *Falls in the Workplace: Ladder Safety Mobile App* | NIOSH | CDC. (n.d.). https://www.cdc.gov/niosh/falls/ladder/ladder-safety-app.html?CDC_AAref_Val=https://www.cdc.gov/niosh/topics/falls/mobileapp.html
- *Ladder safety: The basics*. (2021, February 26). 2021-02-21 | Safety+Health. https://www.safetyandhealthmagazine.com/articles/20871-ladder-safety-the-basics?utm_source=march1st
- American Ladder Safety Institute <https://www.americanladderinstitute.org/>
- National Ladder Safety Month <https://www.laddersafetymonth.com/>
- EHS **Ladder Safety** SOP <https://cms.unl.edu/business-and-finance/university-operations/ehs/sites/unl.edu.business-and-finance.university-operations.ehs/files/media/file/s-ladder.pdf>
- EHS **Portable Ladder Safety** Web-Based Training <https://ehs.unl.edu/web-based-training#PortableLadder>
- Ladder & Step Stool Safety for Everyone (October 2018 colloquium) <https://ehs.unl.edu/training/laboratory-safety-colloquium-series/>

- **Ladder and Step Stool Safety** (keenansolutions video, 3.05 minutes)
<https://www.youtube.com/watch?v=XYNkLA3qhyY>

4. Safely Navigating Steps and Uneven Surfaces

Nationally slips, trips and falls are a major cause of workplace injuries, 15% of injury incidents overall with 25,000 incidents daily in the US according to the National Safety Council. Over the past few months there have been a significant number of injury incidents and near misses related to navigation of steps and uneven surfaces at the University of Nebraska-Lincoln. Slips, trips and falls can result in injury to back/spine, head/brain, muscle strain, sprains, broken bones or death, none of which YOU want to experience.

Follow these guidelines to avoid injury or near miss:

- First and foremost, always maintain awareness of your surroundings and body in relation to the surrounding area. For example, is there a wet floor sign in your anticipated path, or if you step back from a hazard in your path will your body still be on an even surface.
- Maintain focus on your travel path not your cell phone, a person you are walking with, or what you plan to do when you reach your destination.
- When walking outdoors on campus, use the paved paths provided Do not take shortcuts.
- Avoid poorly lit travel paths. Dim lighting can make it hard to spot uneven surfaces, including cracks in sidewalks or a loose piece of carpet.
- Avoid outdoor steps that have snow/ice and use another building entrance.
- Use handrails when ascending/descending stairs both indoors and outdoors.
- Maintain a clear line of vision. Do not carry items by yourself that are heavy or large enough so that you cannot clearly see around the

item and use an elevator not stairs. Avoid carrying items by yourself that are awkward shape or with movable items inside that require adjustment to your posture interfering with maintenance of a stable center of gravity and use an elevator not stairs.

- Wear sturdy shoes that are not prone to slipping.
- Walk at a reasonable pace and observe your path of travel to avoid obstacles, changes in elevation (e.g., curbs), uneven surfaces or weather hazards (e.g., slick areas due to rain, ice, snow).
- Observe ladder and step stool safety.

Slips, trips and falls are 100% preventable if you take the proper precautions!

Resources

- EHS SOP Slips, Trips, Falls – Reducing Risk and Avoiding Injury https://cms.unl.edu/business-and-finance/university-operations/ehs/sites/unl.edu.business-and-finance.university-operations.ehs/files/media/file/s-slips_trips_falls.pdf
- Control, T. R. (2023, January 9). *Preventing slips, trips and falls in the workplace*. <https://www.travelers.com/resources/business-topics/workplace-safety/preventing-slips-trips-and-falls-in-the-workplace>
- *Make Fall Safety a Priority*. (n.d.). NSC. Retrieved March 3, 2025, from <https://www.nsc.org/workplace/safety-topics/slips-trips-and-falls/slips-trips-and-falls-home?srsId=AfmBOorxqmJgvEKCQHx8aelQrgsj7n8fqzjlu3GkudzASN9u04Ow1Qw>

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Environmental Health and Safety

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