

**In this issue of the Environmental Health and Safety (EHS) Listserv,
October 5, 2017**

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1. National Biosafety Month – Stewardship

The National Institutes of Health (NIH) Office of Science Policy designates October as “National Biosafety Month.” The objective is to foster a culture of responsibility for biosafety and biosecurity throughout the nation for all persons and institutions engaged in research in the life sciences. Each year a different theme is selected that is related to this objective. This year’s theme is “promoting biosafety through good governance.”

At UNL, a key parameter of “promoting biosafety through good governance (stewardship)” is the continued activities of the Institutional Biosafety Committee (IBC). This committee is charged with reviewing and approving work at UNL that involves a variety of biohazardous materials, to include any of the following:

- Recombinant or synthetic nucleic acids
- Human, animal, and plant pathogens *including toxins of biological origin*
- Bloodborne pathogens and other potentially infectious materials, as defined by the United States Occupational Safety and Health Administration (OSHA). *This includes all human and primate cell lines.*
- Select agents, including designated biologically-derived toxins, as defined by the United States Departments of Agriculture or Health and Human Services
- Transgenic animals and plants (*other than field trials of transgenic plants authorized by United States Department of Agriculture, Animal and Plant Health Inspection Service (APHIS)*)
- Field collection or sampling of wild animals, when there is risk of exposure to zoonotic diseases

Persons who engage in clinical/diagnostic, research, and teaching activities involving any of the biological materials/agents described above must register a protocol with the IBC. In addition, after the protocol has been approved it must

be maintained by submitting annual updates, and amendments prior to engaging in activities that are not described in the currently approved protocol.

Examples of changes requiring submittal of an amendment include but are not limited to changes to research objectives, genes of interest, host/vector systems, research organisms, and other changes that impact the risk assessment upon which the original protocol was based.

Other key parameters to “promoting biosafety through good governance” involve robust personnel training and written policies and procedures. If your work involves the use of biological agents, become familiar with UNL’s **Biosafety Guidelines** and all standards referenced within this document (e.g., **NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules**, **Biosafety in Microbiological and Biomedical Laboratories**, etc.). Complete EHS training that will familiarize you with the principles and practices of biosafety, biosecurity, and the governance system established at UNL. For questions on requirements, consult the **Training Needs Assessment for EHS-Related Topics**.

Resources

- EHS web-based training:
 - **NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules** <https://ehs.unl.edu/web-based-training#NIHGuidelines>
 - **Biosafety Basics** <https://ehs.unl.edu/web-based-training#BioBasics>
 - **Biosafety in the BSL-2 Laboratory** <https://ehs.unl.edu/web-based-training#BSL2>
- UNL Biosafety Guidelines https://ehs.unl.edu/Biosafety_Guidelines.pdf
- **Training Needs Assessment for EHS-Related Topics** https://ehs.unl.edu/Training_Needs_Assessment.pdf
- Institutional Biosafety Committee (IBC) website <https://ehs.unl.edu/committees/ibc>
- **NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules** <https://osp.od.nih.gov/biotechnology/nih-guidelines/>
- **Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition** <https://www.cdc.gov/biosafety/publications/bmbl5/>

2. Fall Colloquium: Biosafety Cabinets

The fall safety colloquium, co-sponsored by EHS and the Office of Research and Economic Development, will be on Wednesday, October 11, 2017. Brian

Garrett, Labconco Product Manager, will provide information relevant to those who use, intend to use, or select and purchase biosafety cabinets. Select the session that best fits your schedule:

- East Campus Union from 11:30 – 12:30 p.m.
- Repeated at Hamilton Hall (Room 104) from 3:30 – 4:30 p.m.

RSVPs are NOT required. For further information or to suggest future colloquium topics, contact Elizabeth (Betsy) Howe, ehowe2@unl.edu or (402) 472-5488.

Resources

- EHS Safety Colloquium Series <http://ehs.unl.edu/training/Colloquium>

3. Revised DOT/IATA Training – Biological Substances Category B, Patient Specimens

Recently we highlighted the change in approach to DOT/IATA training for “hazmat” employees. “Hazmat” employees are those who engage in any pre-transport or transport function of hazardous materials/dangerous goods (e.g., packaging, preparing paperwork, etc.).

The initial/recurrent training for **Biological Substances, Category B, and Patient Specimens (human/animal) with or without Dry Ice and/or Dangerous Goods in Excepted Quantities** is now available online. This training is to be taken as the initial training when an employee is assigned the task to prepare and ship packages that contain Biological Substances, Category B, or Patient Specimens (human/animal). This web-based training also serves as recurrent training, which is required every three years.

Under the new approach to comprehensive training, before taking this training, employees MUST successfully complete the “Dry Ice/Dangerous Goods” training course as a prerequisite to either initial or recurrent training.

The revised and new “**Shipping**” Safe Operating Procedures (SOPs) that support the revised training path for the two courses online now:

- **Shipping Items With Dry Ice That Are Not Otherwise Dangerous Goods** http://ehs.unl.edu/sop/s-ship_nondanger_dry_ice.pdf
- NEW: **Shipping Excepted Quantities of Dangerous Goods** http://ehs.unl.edu/sop/s-ship_excepted_quantities.pdf
- **Shipping Biological Substances and Patient Specimens** http://ehs.unl.edu/sop/s-ship_biological_substances.pdf

Note that the **DOT/IATA Recurrent Training (for) Shipping Dangerous Goods: Infectious Substances, Category A**, is under development and will be online in December. The revised SOP that supports this course is:

- **Shipping Infectious Substances With or Without Dry Ice**
http://ehs.unl.edu/sop/s-ship_infectious_substances.pdf

If your job tasks qualify you as a “hazmat” employee and you have not taken DOT/IATA training or if you have questions on this topic or the changes being implemented, contact Tony Lloyd, alloyd4@unl.edu, 402-472-4942.

Resources:

- EHS **Shipping** SOPs <http://ehs.unl.edu/sop/shipping>
- United States Department of Transportation
<https://www.transportation.gov/>
- International Air Transport Association <http://www.iata.org/>

4. Harvest Safety

Agriculture is among the most hazardous industries. Overall in 2015, the most recent year for which data is available, 401 farmers and farm workers died from a work-related injury, resulting in a fatality rate of 19.2 deaths per 100,000 workers. According to Bureau of Labor Statistics 2015 figures for Nebraska, transportation incidents, which include tractor overturns, were the leading cause of death. The most effective way to prevent tractor overturn deaths is the use of a Roll-Over-Protective Structure (ROPS).

Harvest is an intense time due to the quantity of work to be accomplished and the time frame in which it must be done. That urgency, often leading to fatigue and inattentiveness, can lead to an increased incidence of injury. Here are a few harvest time safety tips to consider:

- Read operator’s manuals prior to equipment use and be sure all operators are familiar with and properly trained in safe use.
- Install and use safety devices such as Slow-Moving Vehicle signs and seat belts.
- Have roll-over-protective devices fitted on tractors.
- Keep all equipment/machinery guards in place. Wait until all mechanisms have stopped moving before attempting to service/unclog.
- Take breaks and get enough sleep. Fatigue, stress, medication, alcohol, and drugs cause lack of focus on tasks.

Working safely helps avoid injuries so you can get the job done.

Resources

- EHS **Ag Safety** SOPs <http://ehs.unl.edu/sop/ag-safety>
 - **Harvest Safety** http://ehs.unl.edu/sop/s-harvest_safety.pdf
 - **Tractor Safety** <https://ehs.unl.edu/sop/s-tractor.pdf>

- OSHA Quick Card “Protecting Farmworkers from Tractor and Harvester Hazards” (English/Spanish)
<https://www.osha.gov/Publications/OSHA3706.pdf>
- OSHA Quick Card “Backing Up Farm Vehicles and Equipment Safety” (English/Spanish)
<https://www.osha.gov/Publications/OSHA3733.pdf>
- Katz, Phil. “Fall harvest safety tips.” *Michigan State University Extension*, 4 Oct. 2013, http://msue.anr.msu.edu/news/fall_harvest_safety_tips
- agKnowledge Spotlight “Harvest Safety Tips”
https://www.aganytime.com/Documents/ArticlePDFs/HarvestSafetyTips_ASDKDP.pdf
- “Fall Harvest Safety Tips,” *Penn State Extension*, 12 Sept. 2017,
<https://extension.psu.edu/fall-harvest-safety-tips>
- Mihalovic-Bayer, Dawn. “Harvest safety tips for farmers.” *Mayo Clinic Health System*, 18 Sept. 2015,
<https://mayoclinichealthsystem.org/hometown-health/speaking-of-health/harvest-safety-tips-for-farmers>

5. Safety Shorts - Harvest Topics

This series features links to short safety resource(s) each month. Regardless of format - video, PDF, other - these short features cover various topics and are intended as resources for safety committees, faculty/staff/students, as well as individual laboratories/work areas. These videos are applicable to harvest and farm safety.

- **Growing Safely - Auger Safety** (OffTheJobSafety, Duration 5:47 minutes). Within the context of an auger injury incident, information on hazards of using an auger and mitigation.
<https://www.youtube.com/watch?v=hwQD-GmrdoE>
- **Growing Safely – PTO Safety** (OffTheJobSafety, Duration 4:44 minutes). Recounts an accident involving a livestock worker caught in a power takeoff and provides practical and simple safety practices.
<https://www.youtube.com/watch?v=MifW5dWvEC4>
- **Growing Safely series by OffTheJobSafety**. 16 videos on various Farm Safety topics. Click the link to start the first video. Others will be listed to the right for your selection.
<https://www.youtube.com/watch?v=NYodpPEVyPc&list=PLbnmzNPhY9bB5fox5VErUY1SFtjPUCpRS>

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. Chancellor's University Safety Committee at the Supplier Showcase

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. For their next outreach event, the CUSC will have a booth at the October 17, 2017, *Supplier Showcase*, sponsored by UNL Procurement, from 10:00 a.m. – 2:00 p.m. in the City Union Centennial Ballroom. Make plans to stop by for a "Heads Up" on how to stay aware and be prepared to maintain your personal safety, in particular, while walking/biking/driving at UNL and learn how to report Near Miss/Close Call incidents.

Resources

- Chancellor's University Safety Committee
<http://ehs.unl.edu/chancellors-university-safety-committee-cusc#cusc>
- UNL Procurement **Supplier Showcase**
<http://procurement.unl.edu/supplier-showcase-suppliers>

7. Situational Preparedness – Focus on the Trip

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 at UNL.

The National Safety Council has a number of resources related to distracted driving, bicycling, walking. They also produce a quarterly newsletter "Focus on the Drive." In the September edition, it is stated that fatigue is more than just feeling sleepy. It can show up in reduced energy, a greater effort required to accomplish tasks, and impaired decision making. Research shows:

- You are three times more likely to be in a car crash if you are fatigued
- More than 5,000 people died in drowsy-driving related crashes in 2014
- Losing even two hours of sleep can be similar to the effect of having three beers
- Being awake for more than 20 hours is similar to being legally drunk"

This information can be extended to other forms of locomotion, like bicycling. Fatigue can impair your ability to safely operate a bicycle, and it can hamper your awareness of surroundings, even when walking.

Resources

- Whitcomb, Emily, "Addressing Causes of Fatigue can Help Reduce Drowsy Driving." *Focus on the Drive Quarterly Newsletter*, National Safety Council, Sept. 2017, <http://www.nsc.org/learn/NSC-Initiatives/Pages/Focus-on-the-Drive-Distracted-Driving-Newsletter.aspx>
- Heads Up! Marketing Materials <https://ehs.unl.edu/heads-up-marketing-materials>

8. Near Miss or Near Hit?

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

Resources

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

Remember...SAFETY IS AN ATTITUDE!

Environmental Health and Safety

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