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1. Laboratory Decommissioning

Principal Investigators (PIs), who intend to leave employment at UNL, relocate to another UNL assigned space, or remodel an existing laboratory space must ensure that proper decommissioning takes place. PIs are accountable for all items and materials in their area, including research samples, used chemicals, and materials purchased, created or inherited from former lab occupants, equipment, etc. Departments are responsible for all costs incurred when the decommissioning process is not followed.

The decommissioning process can take significant time to complete and may require coordination of several departments (e.g., EHS, Facilities, Office of Research, etc.), so advance planning and notification to EHS is advisable.

Contact EHS sixty to ninety days prior to the laboratory change and inform them of your plans and schedule.

Chemicals

With respect to **chemicals** that are associated with the laboratory:

- Review all chemical containers for integrity, labeling, and sealed lids.
- Label any waste containers with the words “Waste’ followed by the product name and fill out a Hazardous Materials Collection Tag to send to EHS for pick-up.
- Clean all work surfaces, durable equipment used with chemicals, fume hoods, storage locations, etc.
- Remove all chemicals, water, mercury thermometers and alcohol thermometers from equipment before sending to Inventory or moving to a new location.

Radioactive Materials

If the laboratory has been used with **open-source radioactive material**:

- Tag all radioactive waste for collection by EHS using the Hazardous Materials Collection Tags and send to EHS for pick-up.
- Consult EHS before transferring any radioactive material to another laboratory.
- Decontaminate all durable equipment used with radioactive material and verify efficacy with swipe surveys.
- Return all dosimetry (badges and rings) to EHS.
- Contact the EHS Radiation Safety Office to complete a decommissioning audit.

If **radiation-producing devices** (e.g., x-ray machine), radioactive material containing device (e.g., electron capture detector), or class 3B or 4 lasers have been used in the laboratory:

- Inform EHS of the intended disposition of devices.
- Return all dosimetry (badges and rings) to EHS.
- Contact the EHS Radiation Safety Office to complete a final close-out audit.

Biological Materials

If the laboratory has been involved in activities with **biological materials** (i.e., recombinant or synthetic DNA, human/plant/animal pathogens, diagnostic specimens, biologically-derived toxins, etc.):

- Decontaminate all waste materials and unwanted stocks, generally by autoclaving or via UNL's biological waste vendor.
- Decontaminate all potentially contaminated equipment and surfaces. Consult with the EHS Biosafety Officer about decontamination methods of biological safety cabinets, incubators, and other equipment that may be contaminated with biohazards.
- Do not send any contaminated equipment to Inventory until EHS has approved the decontamination process.
- Contact the EHS Biosafety Officer for a final walkthrough.

General Housekeeping

Take care of general cleaning needs of the space:

- Decontaminate/clean equipment and appliances that will be scrapped or sent to inventory prior to service by Maintenance and removal by Moving Services.
- Notify Moving Services and Inventory of typical household appliances that have been used in laboratory operations that could result in residual contamination (e.g., acid digestions, ethidium bromide preparation, etc.) and which should therefore be disposed rather than sold at public auction. Clearly label the appliance prior to pick-up by Moving Services.

Review the **Laboratory Decommissioning** Safe Operating Procedure (SOP) for more detailed information.

Resources

- **Laboratory Decommissioning** SOP https://ehs.unl.edu/sop/s-lab_decom.pdf

2. Holiday Safety

The festive holiday season is underway. To keep the season festive, think about safety during your preparations and activities. Here are some tips to avoid hazards and keep the holiday season “merry.”

Hanging lights/decorations:

- Use a properly designed ladder or stepstool to decorate areas beyond your reach.
- Inspect the ladder to be sure it has non-skid feet, no visible damage, and has the proper rating to hold not only your weight but also the weight of the decorations/tools you will be using.
- Make sure stepladders are fully unfolded prior to use. Do not stand on the top rung, climb on the backside of the ladder, or lean out to the side of the ladder.

Electrical hazards:

- Carefully inspect holiday lights and discard any with frayed or nicked cords or loose connections. Always turn off holiday lights, both indoors and out, when you leave the house unattended or retire for the night.
- Do not use power strips in series for indoor holiday electrical needs, rather arrange items so power strips can be plugged directly into a permanently installed outlet.
- When purchasing/using light strings, extension cords, spotlights, or electrical decorations, look for the certification mark of an accredited organization such as UL (Underwriter’s Laboratories). Before using lights outdoors make sure they have been certified for outdoor use.
- Do not use extension cords in series, rather use a cord long enough to reach the outlet without stretching, but not so long as to become easily tangled. Plug all outdoor electric decorations into circuits with ground-fault circuit interrupters to avoid potential shocks.
- When hanging outdoor lights keep electrical connectors off the ground and away from metal rain gutters. Use insulated tape or plastic clips to hold them in place, not metal nails or tacks. Ensure your lights and cords are rated for outdoor use.

Fire safety:

- Test your smoke alarms and carbon monoxide detectors if you have not recently done so, and make sure that they are UL-listed.
- Choose a Christmas tree with fresh, green needles that do not fall off when touched. Water the tree daily. Keep the tree at least three feet away from fireplaces, radiators, portable heaters, or other heat sources. When purchasing an artificial tree look for the label “Fire Resistant.”
- Use noncombustible or flame-resistant materials to trim a tree. Replace any string of lights with worn or broken cords or loose bulb connections. Read instructions on the number of light strands to connect.
- Make sure trees and other decorations do not block exits.
- Do not burn wrapping paper in a fireplace. Keep candles away from decorations and other things that can burn. Two of every five home decoration fires are started with candles. Blow out all candles when you leave a room or go to bed.

These are just a few tips to help keep you safe during the holidays. Look around your home for other hazards.

Resources

- EHS **Ladder Safety** SOP <http://ehs.unl.edu/sop/s-ladder.pdf>
- EHS **General Electrical Safety** SOP <http://ehs.unl.edu/sop/s-electricalsafety.pdf>
- EHS Listserv December 19, 2017 **Safety Shorts (videos) – Holiday Safety** <https://ehs.unl.edu/listserv-past-issues>
- NFPA Project Holiday “Winter holiday safety” <http://www.nfpa.org/winterholidaysafety>
- Consumer Products Safety Commission “Holiday Decoration Safety Tips” <http://www.cpsc.gov/PageFiles/121347/611.pdf>
- Parents.com “12 Tips for Holiday Home Safety” <http://www.parents.com/holiday/christmas/safety/12-tips-for-holiday-home-safety/>

3. Ladder and Step Stool Safety Video

A video of the fall safety colloquium, co-sponsored by EHS and the Office of Research and Economic Development, held on Wednesday, October 24, 2018, is now online. The video emphasizes the four main things to remember:

- Select the correct ladder or step stool for the use and load capacity.
- Ensure all components are in good condition.
- Set up the ladder or step stool properly.
- Use the ladder or step stool for purposes designed.

Creativity in the workplace and cutting corners is the enemy of safety.

Did you know that about 2,000 ladder-related injuries occur every day and 364 deaths occur each year from falls related to ladder use? Many everyday tasks require the use of a ladder or step stool. Step stool hazards are similar to those of ladders, even though step stools may be lower in height.

At UNL there have been eighteen (18) injuries related to ladder deficiency since late 2009. Here is information on just a few of the more serious incidents:

- A maintenance worker fell from a 16-inch step ladder while handling sheet rock and fractured their hip.
- A custodial worker fell while descending a ladder. The worker was holding items while descending. The worker strained left hip, shoulder and foot.
- A custodial worker was cleaning a pool wall while on a ladder. Water had been drained from the pool. The ladder slipped and the worker fell to the pool floor, spraining their left shoulder.
- A material handler was descending an access ladder at a building dock. The worker slipped off a step and fell on their back.
- An office worker was on an old wooden ladder when the ladder broke. The worker fell and suffered a contusion in groin area.
- An office worker used a chair to reach overhead items and fell, bruising their right hand.
- A retail worker missed the last step of a step ladder and fell. The worker bruised and strained right leg, left foot and left shoulder.

Other minor injuries have occurred in laboratories, agriculture and food service related departments. Ladder safety is important to all UNL departments. In 2016, nearly 20,000 workers were injured and 133 workers died due to a fall from a ladder in the U.S. (source: <http://www.nsc.org/learn/safety-knowledge/Pages/Ladder-Safety-One-Rung-at-a-Time.aspx>)

Here are some questions for discussion in your work area:

1. Does your department/area use a ladder/step stool, or other engineering control to access high areas? Or are your workers using chairs and other makeshift devices to access overhead?
2. Have your employees who use ladders taken EHS "Portable Ladder" training? It is available on EHS web site at <https://ehs.unl.edu/web-based-training#PortableLadder> . Have workers reviewed the EHS SOP "Ladder Safety" (<https://ehs.unl.edu/sop/s-ladder.pdf>)
3. Are the ladders in your department in good condition? If not, immediately remove the ladder from service.
4. If you use a ladder or a step stool, review the resources provided to ensure that you do not become an "injury statistic." You can also review the contents of this or previous colloquia online <https://ehs.unl.edu/training/Colloquium>.

Resources

- American Ladder Safety Institute
<http://www.americanladderinstitute.org/>
- EHS **Ladder Safety** SOP <https://ehs.unl.edu/sop/s-ladder.pdf>
- EHS **Portable Ladder Safety** Web-Based Training
<https://ehs.unl.edu/web-based-training#PortableLadder>

4. Situational Preparedness – Stop Pedestrian Deaths

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 while driving, bicycling or walking.

On average, according to the National Highway Traffic Safety Administration (NHTSA) a pedestrian is killed in a traffic crash every 1.5 hours. And the number of pedestrians killed is on the rise. Here are a few tips to help pedestrians be safe and not become a statistic:

- **Be predictable.** While some fatal vehicle-pedestrian crashes occur at intersections, most happen away from crosswalks (82% in 2015). Emerging from between parked cars does not allow motorists much time to react to this unexpected occurrence.
- **Be engaged.** Don't assume a driver sees you. Make eye contact as the driver approaches to ensure the driver knows you are there. Watch for cars turning into the roadway, entering/exiting driveways, or backing up in parking lots.
- **Improve your chances.** If you must cross a street away from an intersection, choose a well-lit area, wait for a gap in traffic that allows you plenty of time, and keep an eye out for vehicles entering the area as you cross.
- **Watch the time.** When it's dark outside it's harder for drivers to see walkers along the road. In 2015, 74% of pedestrian deaths occurred when it was dark. . Wear bright-colored clothing during the day and after dark wear reflective materials or carry a flashlight.
- **Teach kids.** One in five people under the age of 15 who were killed in traffic crashes were pedestrians, according to the National Highway Traffic Safety Administration. Talk to kids about avoiding distractions and using sidewalks.
- **Hold the phone.** Keep alert at all times. Walking and using a cell phone is a dangerous combination. Always keep your eyes watching and your ears listening so you don't step into traffic. If you must use your phone, stop and move away from traffic first.

Here are a few driving safety tips to help drivers avoid vehicle-pedestrian accidents:

- Look everywhere all the time. Pedestrians sometimes emerge from between parked cars or other areas with obstructed view.
- Use extra caution in hard-to-see conditions. Nighttime or other low light situations and bad weather can make seeing pedestrians more difficult.
- Yield to pedestrians in crosswalks. Stop well back of the crosswalk. NEVER pass vehicles stopped at a crosswalk. There may be people crossing you cannot see.
- Slow down. Follow the speed limit, including slower speeds in school zones, neighborhoods where children are present, and parking lots. Lower your speed if people are in the street or are waiting to cross the street.
- Be extra caution when backing up. Pedestrians can move into your path.

In 2017, 5877 pedestrians were killed in traffic crashes in the United States, 16% of all traffic fatalities. This is a 1.7% increase in pedestrian fatalities from 2016. Don't include yourself in this group!

Resources

- GHSA (Governors Highway Safety Association *Issues/Bicyclist and Pedestrian Safety* <https://www.ghsa.org/issues/distracted-driving>)
- GHSA “Everyone Walks. *Understanding and Addressing Pedestrian Safety*” <https://www.ghsa.org/resources/everyone-walks15>
- NHTSA (National Highway Traffic Safety Administration) <https://www.nhtsa.gov/road-safety/pedestrian-safety>
- **Ped Motion Graphics – Walking Safely** (USDOTNHTSA, duration 1:52) https://www.youtube.com/watch?time_continue=112&v=nERko-B8sgM
- NHTSA Traffic Safety Facts “Pedestrians” <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812493>

5. NEW Safety Posters – Walking In Winter

EHS has developed a number of safety posters of relevance to the campus community. Due to popular demand and with permission of the Iowa State EH&S department, EHS now has available three posters reminding workers of safe “Walking In Winter” tips for various circumstances.



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>

6. Your Opinion Matters

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.

In order to effectively evaluate potential areas for improvement, please provide specific information or examples and your name and contact information. 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 outside the parameters of this survey.

7. Revised Safe Operating Procedure

- **Security Advice for Research Facilities**
https://ehs.unl.edu/sop/s-bio-security_features.pdf

The title was changed to reflect that this is applicable to all UNL research facilities not just laboratories on campus. References were updated.

Remember...SAFETY IS AN ATTITUDE!

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