

## **In this issue of the Environmental Health and Safety (EHS) Listserv – February 3, 2021**

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### **1. Ready for an Emergency?**

To be ready for an emergency your department/facility/area should have an Emergency Action Plan to facilitate and organize employer and employee actions during workplace emergencies. Well-developed emergency plans and proper employee training, such that employees understand their roles and responsibilities within the plan, will result in fewer and less severe employee injuries and less collateral damage to ongoing research or facilities during emergencies.

Putting together an emergency action plan that deals with specifics of your work site/building is not difficult. It involves describing how employees should respond to different types of emergencies, taking into account your specific work site layout, structural features, and emergency systems.

The UNL Emergency Planning and Preparedness website contains a template (“Faculty, Staff & Depts.” tab, “Have a Plan” section). Assistance and a fillable version is available upon request from Mark Robertson, UNL Emergency Management Director ([preparedness@unl.edu](mailto:preparedness@unl.edu)). While the template is designed for developing a **Building Emergency Action Plan**, it can readily be modified to develop a facility or specific area action plan.

Does your department/area/facility already have an Emergency Action Plan? Emergency action plans should be reviewed at least once a year and more often if necessary, to reflect changes in personnel or other specific attributes of the area/facility.

All workers should be familiar with the emergency action plan, including how they will be notified of an emergency, at least two safe routes of escape from the building, and where they can shelter-in-place, if needed. In an emergency people tend to freeze, so they need to know what to do without having to think about it—that means training. If workers have additional roles to play in an emergency, such as shutting down equipment or assisting disabled co-workers, they must be trained in those duties as well. In addition to regular review/

/retraining, make sure that all new workers are trained on the emergency action plan.

## Resources

- Emergency Planning & Preparedness: Building Emergency Action Plan <https://emergency.unl.edu/doc/Template%20Building%20Emergency%20Action%20Plan.pdf>
- EHS **Emergency Preparedness** Safe Operating Procedures <https://ehs.unl.edu/sop/emergency-preparedness>
- EHS **Emergency Preparedness** web-based training <https://ehs.unl.edu/web-based-training#EP>

## 2. AEDs – Use, Location & Maintenance

An AED (Automatic External Defibrillator) is a smart, portable device that can be used to treat heart attack victims. Because of their simple design and ease of operation, they can be safely used by a member of the general public. An AED contains a power pack and two electrodes. The electrodes are applied to strategic locations on the chest of the victim and the power pack delivers a shock when a button is pushed. If effective, the shock restores normal electrical rhythm to the heart. An AED will not deliver a shock unless it first detects an abnormal heart rhythm.

Do you know the location of the nearest AED in your workplace? Like fire extinguishers and other fixtures, we often walk right by AEDs and don't really notice them. In the event of an emergency it is important to be able to quickly retrieve an AED for use.

To assure AEDs will be functional in an emergency situation, routine maintenance is required. Batteries are one of the most important parts of an Automatic External Defibrillator (AED) system. To make sure an AED will work perfectly in an emergency situation, periodically check batteries as directed by the manufacturer to make sure they are in good working condition and replace the batteries when needed. The manufacturer will provide additional maintenance instructions, such as periodic replacement of electrodes and pads.

AED batteries contain heavy metals such as mercury, lead, cadmium, and nickel which must be properly disposed. Complete and submit a Hazardous Materials Collection Tag for disposal through Environmental Health and Safety.

Upon occasion, there may be a reason to dispose the entire AED unit. When discarding the entire unit, contact EHS for pickup and disposal of the device by completing/submitting a Hazardous Materials Collection Tag.

For questions on this topic or other disposal concerns, contact Tony Lloyd, 402.472.4942 or [alloyd4@unl.edu](mailto:alloyd4@unl.edu).

## Resources

- **Automatic External Defibrillators** Safe Operating Procedure (SOP) <https://ehs.unl.edu/sop/s-AED.pdf>
- 08/22/2013, Posted on. "Portable Defibrillators Need Regular Maintenance to Prevent Failures." *Sudden Cardiac Arrest Foundation*, 22 Aug. 2013, [www.sca-aware.org/sca-news/portable-defibrillators-need-regular-maintenance-to-prevent-failures](http://www.sca-aware.org/sca-news/portable-defibrillators-need-regular-maintenance-to-prevent-failures)
- **Battery Disposal** SOP <https://ehs.unl.edu/sop/s-batterydisposal.pdf>
- **Hazardous/Radioactive Material Collection Procedures** SOP [https://ehs.unl.edu/sop/s-chem\\_collection\\_procedures.pdf](https://ehs.unl.edu/sop/s-chem_collection_procedures.pdf)

## 3. Situational Preparedness – Distracted Driving Is Deadly Serious

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.

For the past decade, distracted driving has become an increasingly serious issue. Distracted driving endangers not only the distracted driver, but also their passengers and all other road users. In the last seven years, 9% of fatal crashes involve distracted drivers.

Talking, using your phone, adjusting the radio, applying makeup, eating or drinking can all distract you from the essential task of safe driving. One of the deadliest and most common forms of distracted driving is also illegal in 48 states...texting while driving. Since 2007, drivers age 16-24 have been distracted by devices at higher rates than other drivers, but we are all at risk for distracted driving crashes either caused by our own actions or the actions of others on the road.

The National Highway Traffic Safety Administration (NHTSA) has developed a *U Drive. U Text. U Pay* campaign. Points to remember and follow:

- If you must send/receive a text, pull over to a safe location and park your vehicle first.
- If you have passengers, appoint a "designated texter" to handle all your texting.
- If you can't resist the temptation to look at it, keep your phone in the trunk or otherwise unreachable.

In 2018, 2,841 lives were lost in crashes involving distracted drivers and 400,000 injured, a situation that is totally preventable. Be part of the solution, not part of the problem. Don't engage in distracted driving, walking or bicycling.

For free information, facts and toolkits to “get out the word” to those you care about, please visit [www.Distracted.gov](http://www.Distracted.gov).

## Resources

- NHTSA (National Highway Transportation Safety Association) “U DRIVE. U TEXT. U PAY.” <https://www.nhtsa.gov/campaign/distracted-driving>
- NHSTA *Look at Me:15* [https://www.youtube.com/watch?v=Wl-9ROOT4-Q&feature=emb\\_logo](https://www.youtube.com/watch?v=Wl-9ROOT4-Q&feature=emb_logo)
- NHSTA *Dinged* <https://www.youtube.com/watch?v=cLP3i84uMr4>
- NHSTA *Famous Last Words* [https://www.youtube.com/watch?v=L6uepXw9gZA&feature=emb\\_rel\\_end](https://www.youtube.com/watch?v=L6uepXw9gZA&feature=emb_rel_end)
- Texting Driver and a Texas Family <https://www.youtube.com/watch?v=b-X0H5Og LZ4>

## 4. Hand Sanitizer Safety

It’s hard to walk through any building anywhere without encountering hand sanitizing stations or bottles of hand sanitizer for public use. Hand sanitizers are a convenient alternative for sanitizing hands when handwashing with soap and water is not possible. Hand sanitizer is flammable, but users may not be aware of that fact. Hand sanitizers contain 60% or higher concentrations of alcohol, typically ethanol or isopropyl alcohol. Hand sanitizer gives off ignitable vapors at roughly room temperature or above, vapors which can ignite if exposed to an ignition source. Hand sanitizer should be stored away from heat and flames. When using, rub hands until completely dry before performing activities that may involve heat, sparks, or open flames.

Despite some media information to the contrary, according to the National Fire Protection Association (NFPA) hand sanitizer is not likely to spontaneously ignite in a hot vehicle. Spontaneous ignition involves a substance self-heating to a point where it ignites, without the need for any outside ignition source like a flame. Hand sanitizer is not subject to self-heating and would require temperatures to reach over 700 degrees Fahrenheit to spontaneously ignite, according to Guy Colonna, director of Technical Services at NFPA.

Additional safety and efficacy tips:

- Sanitizers should not contain methanol. Check the label.
- Keep containers tightly closed.
- Keep hand sanitizers out of the reach of pets and children. Children should use hand sanitizer only with adult supervision.
- If hand sanitizer is transferred from a larger into a smaller container, be sure to clearly label the secondary container to avoid inadvertent ingestion.
- Active ingredients become less effective when exposed to heat and sunlight, so avoid storing in vehicles, especially when it’s hot outside.

- Hand sanitizers become less effective after the expiration date, typically three years.
- Use as directed for proper disinfection. Use enough product so all surfaces of your hands are completely wet.

## Resources

- The University of Tennessee Knoxville, Environmental Health & Safety, Public Safety “Safe Use of Hand Sanitizer”  
<https://ehs.utk.edu/index.php/covid-19-workplace-safety-guidelines/safe-use-of-hand-sanitizer/>
- US Food and Drug Administration “Safety Using Hand Sanitizer”  
<https://www.fda.gov/consumers/consumer-updates/safely-using-hand-sanitizer>
- Verzoni, A., 2021. *Can hand sanitizer spontaneously ignite in a hot car?*. [online] Nfpa.org. Available at: <https://www.nfpa.org/News-and-Research/Publications-and-media/Blogs-Landing-Page/NFPA-Today/Blog-Posts/2020/05/22/can-hand-sanitizer-spontaneously-combust> [Accessed 28 January 2021].
- WPLocal 10 “Too much hand sanitizer can be dangerous, especially around flames” <https://www.youtube.com/watch?v=vN5PmXAeFCw>
- Centers for Disease Control and Prevention “Fire Safety and Alcohol-Based Hand Sanitizer (ABHS)”  
<https://www.cdc.gov/handhygiene/firesafety/index.html>
- Cherney, K., 2021. *Hand Sanitizers in Hot Cars: Effectiveness, Proper Use, and More*. [online] Healthline. Available at: <https://www.healthline.com/health/hand-sanitizer-hot-car> [Accessed 28 January 2021].
- National Fire Protection Association “Fire safety consideration for hand sanitizer” <https://www.youtube.com/watch?v=1P3GjIBKwI8>

## 5. Federal and State Agency Inspections

A number of federal and state agencies that routinely conduct compliance inspections at UNL of programs under the purview of EHS include the Environmental Protection Agency, the U.S. Department of Transportation (DOT), Lincoln-Lancaster County Health Department (LLCHD), Nebraska Department of Health and Human Services (NHHS), Nebraska Department of Environment and Energy (NDEE), U.S. Department of Agriculture (USDA), and National Institutes of Health (NIH).

Following is a brief description of the purpose of a few of the agency’s inspection of UNL. More information about any of these program areas is available on the EHS website.

- The Environmental Protection Agency typically defers to the Nebraska Department of Environment and Energy, but retains authority to inspect UNL for compliance with many regulations, such as the Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act (commonly referred to as Hazardous Waste Regulations). EPA also has authority over other regulations that could impact UNL, including but not limited to Pesticide Worker Protection Regulations and Toxic Substance Control Regulations (asbestos and Polychlorinated biphenyls) .
- U.S. DOT assesses UNL's compliance with regulations governing the transport of dangerous goods/hazardous materials by any mode of transportation. Any person offering a dangerous good for transport must have current training and the package must be prepared in accordance with all regulatory requirements.
- LLCHD assesses UNL's compliance with Clean Air Act regulations and Special Waste regulations. These regulations mandate certain conditions for UNL's ability to emit air pollutants, primarily from burning of fossil fuels.
- NHHS assesses UNL's compliance with Nebraska Title 180, Control of Radiation. These regulations pertain to use of radioactive materials and devices producing ionizing radiation.
- NDEE assesses UNL's compliance with a number of different regulations, including proper management of hazardous wastes, regulations evolving from the Clean Water Act (stormwater management, livestock operations, etc.), and response to releases of hazardous materials.
- USDA assesses UNL's compliance with permit requirements for certain animal and plant products, as well as UNL's compliance with Select Agent regulations.
- NIH assesses UNL's compliance with the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules.

These regulatory requirements and agencies touch on nearly every aspect of UNL. EHS is committed to designing and administering reliable and practicable programs that assist the campus community in achieving and maintaining a high level of compliance.

If your area works within any of the areas that federal and/or state regulators would assess, please regularly review your processes and procedures to ensure they are within guidelines.

### **Resources**

- UNL Environmental Health and Safety Safe Operating Procedures, <https://ehs.unl.edu/sop>

## **6. Meet New EHS Staff**

EHS is pleased to welcome the following individuals to our staff!

- Hello all, my name is **Syed F. Naeem**. I recently joined Environmental Health and Safety as an Assistant Radiation Safety Officer. I hold a M.S. and a Ph.D. in Health Physics (HP) but I think real hands-on HP experience is more valuable than theoretical knowledge. I really look forward to meeting and working with all RAM and X-ray users on campus.
- Hello, my name is **Macrae Zappala**, an EHS Technician. I earned a Bachelor of Science in Environmental Studies from UNL. Duties typically conducted include Hazardous and Universal Waste pickups on all three campuses in Lincoln. I conduct Safety and Compliance Surveys of selected spaces, mainly laboratories.

## 7. Are We Helping YOU with Your Safety Needs?

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](mailto:bosthus1@unl.edu) if you would rather communicate outside the parameters of this survey.

**Remember...SAFETY IS AN ATTITUDE!**

### **Environmental Health and Safety**

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