ERM QUARTERLY

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ERM PROVIDES SUPPORT FOR SPRING CARNIVAL

Spring Carnival continues to be one of the most anticipated weekends of the year. Taking place April 13-16, the weekend will be packed with fun-filled events such Booth, Buggy, a Kiltie Band concert and Scotch'n'Soda performances. With the frenzy of activity leading up to and during Spring Carnival, Enterprise Risk Management (ERM) and Environmental Health and Safety (EHS), in conjunction with the Spring Carnival Committee, are working tirelessly to ensure the community has a safe Carnival experience.

During Spring Carnival build week and teardown, ERM and EHS provide safety support to students and the Carnival Committee within the following areas:

- Assist with the coordination and implementation of various safety trainings including scissor lift training, forklift training, hand and power tool safety, student shop safety, personal protective equipment and hazard communication.
- Assist the Carnival Booth Committee in their efforts to coordinate and plan Booth and Carnival activities, including review and approval of proposed booth drawings.
- Obtain needed personal protective equipment and scissor lifts for build week.
- Provide fire safety guidance and support including fire extinguisher training, fire extinguishers and smoke detectors.
- Provide washing stations to wash used paint brushes and tools.
- Observe build week and teardown activities to ensure student groups are following the proper safety protocols and that those not involved are not entering Midway.
- Provide weather monitoring and emergency preparedness and response training.

Though Carnival is a thrilling and exciting time for students, faculty, staff, alumni and many others in the Pittsburgh community, everyone's health and safety are always paramount. If you have any questions or concerns regarding Spring Carnival activities, please contact safety@andrew.cmu.edu. ◆

Spring Carnival Midway during build week

ENVIRONMENTAL HEALTH AND SAFETY PROVIDES WASHING STATIONS IN STUDENT MAKER SPACES

CFA Washing Station

Pouring solvents, grit, grime, oil, paint rinse water or other contaminating substances down the drain by washing used paint brushes or tools in a sink has the potential to pollute the environment and damage plumbing. To prevent this from occurring, EHS installed washing stations in student spaces in the East Campus Garage, CFA Studios and Ansys Hall. The stations are Safety Kleen sinks positioned on either a 16- or 30-gallon drum containing solvent or water-based detergents based on use. The stations feature fusible link covers, plastic spigots, brushes for cleaning, and a work lamp. Soiled brushes and tools are manually washed in the sink with the solvent draining into the reservoir drum. The used solvent is collected in the drum and is recycled in accordance with the Environmental Protection Agency and The Resource Conservation and Recovery Act and the Pennsylvania Department of Environmental Protection residual waste regulations.

Below are the step-by-step processes when using a washing station.

Prior to Use

- Ensure the washer is connected to a GFCI (ground fault circuit interrupter) electrical outlet.
- Put on personal protective equipment such as gloves and eyewear.
- Raise the lid and ensure it is secured in the upright position.
- Direct the spigot downward into the sink basin.
- Toggle the switch on the back of the cover to the ON position to turn on the lamp and start the pump.

During Use

- Position the object you are cleaning under the solvent stream and begin cleaning.
- Clean all parts in the sink basin and avoid splashing out of the sink area.

After Use

- Toggle off the lamp switch to shut off the lamp and pump.
- Allow the clean objects to dry completely before removing them from the sink basin.
- Close the lid once cleaning is complete.
- Ensure the lid remains closed while not in use.
- Leave the area in a safe, clean and tidy state.
- Do not pour surplus paint or other chemicals into the basin. Collect these in their original container and submit them for chemical waste disposal through EHS.

Troubleshooting

- No power - Ensure power cord is plugged in, check whether GFCI may need to be reset and verify that the pump connection to the lamp assembly is secure.
- Lamp not lighting - Ensure the cord is plugged in and the lamp switch is toggled to ON.
- Drainage issue - Remove any debris from the sink and ensure the equipment is on level ground.
- If the fluid level is low, the unit may shut off. Report this to your facility coordinator or email safety@andrew.cmu.edu.

For questions/troubleshooting email – safety@andrew.cmu.edu. ◆

OIL BATH FIRE

On Dec. 15, a fire occurred in a chemical fume hood at Mellon Institute when a researcher was attempting to heat an oil bath on a hot plate. An oil bath is a type of heated bath used in a laboratory, most commonly used to heat up chemical reactions. Nobody was injured during the incident, and it was small enough to be smothered by a fire extinguisher. The root cause was determined to be faulty equipment.

Below you will find safety guidelines to keep in mind while using a hot oil bath. These are designed to help you mitigate risks involved with using a vessel containing oil on a hotplate, which include the formation of hotspots and fire.

How Can Incidents Like This Be Prevented?

- **Take a moment to survey all the hot plates in your lab**. If you have antiquated hot plates, consider replacing them with a newer model, especially if they are manufactured prior to 1984. Older models can spontaneously heat with the heater dial in the OFF position. If you have already noticed problems with the hotplate not turning off properly, the hot plate must be replaced.
- **Always inspect equipment prior to use**. Do not use if the plug or cord is warn, frayed or damaged; if the grounding pin has been removed; or if a spark is observed. Inspect for corrosion of the thermostat, which can also cause a spark.
- **Properly maintain equipment**.
- **Use a hot plate that has a thermostat to set the temperature**. Consider installing a thermocouple that will shut down the hot plate when the set point is exceeded.
- **Keep flammable or combustible materials away from hot plates when in use** and do not store them in the vicinity of a hot plate. Store flammable or combustible materials in the proper cabinet to reduce the risk of fire.
- **Provide secondary containment** when hot plates are used for liquids containing flammable or combustible liquids to prevent liquid from contacting the hot plate. Be sure the hot plate temperature is set well below the liquid's flash point.
- **Read the manufacturer's instructions before using**, and register the device with the manufacturer so you will be notified of any warnings or recalls.
- **UNPLUG the hot plate when not in use**. Simply turning off the hot plate may not be adequate. While there have been no reports of this occurring at CMU, there have been incidents of "runaway hot plates." Hot plates that heat uncontrollably regardless of the temperature setting or whether the controls are in the OFF position. Also, there is a chance for the switch to be turned to the wrong setting (such as turning from "high" to "low" and assuming that "low" is "off").
- **Use only heat-resistant, borosilicate glassware**, and check for cracks before using. Do not place thick-walled glassware, plastic containers, soft-glass bottles or jars on a hot plate.
- **The hot plate surface should be larger than the vessel being heated**.
- **Keep electrical cords and temperature sensor probe wires away from the hot plate surface**.
- **Do not place metal foil or metal containers on the hot plate** - the top can be damaged and shock hazard may result.
- **Use personal protective equipment**. Wear thermal gloves and use tongs when removing hot items from a hot plate, and allow items to cool prior to handling.
- **Know where your fire extinguishers are located** and how to use them properly.

Remember: prevention is the best course of action. By following these safety guidelines, you can help prevent accidents and protect yourself and others while working with oil baths. ◆

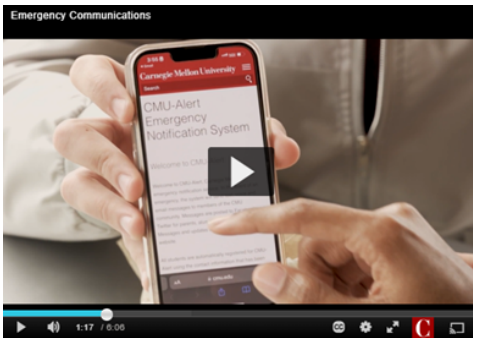
ELECTRONIC WASTE CLEAN-OUTS FOR RECYCLING

Over the fall and winter, Environmental Health and Safety (EHS) worked in collaboration with the Mellon College of Science (MCS) and the Robotics Institute to conduct electronic waste clean-outs at Mellon Institute and Newell Simon Hall. Under the "Covered Device Recycling Act", the Commonwealth of Pennsylvania Department of Environmental Protection requires the proper disposal of computers and all computer peripherals. These devices are comprised of toxic materials and heavy metals which can leach into the soil contaminating the air and waterways. Proper disposal and recycling can save natural resources, conserve energy and reduce pollution. To meet this end, EHS manages the CMU Electronic Waste Program to ensure the proper disposal of covered devices.

Walter Pitts, Building and Facilities Manager, led the effort for Mellon Institute, and Jess Butterbaugh, Project Manager for Robotics, led the work in Newell Simon Hall. Both departments saw the need to clear labs and work spaces and remove obstructions from hallways. Staff were encouraged to sort and tag equipment for recycling. The effort was extremely successful, as MCS removing 8,250 pounds of electronics and Robotics removing 2,100 pounds. All electronics were removed by our regulated waste vendor Veolia for demanufacturing and recycling. As a reminder, in accordance with CMU's sustainability and green practices, everyone is encouraged to use the monthly collection service to have electronics collected and recycled. If you want to schedule a similar cleanout, contact safety@andrew.cmu.edu. ◆

Electronic Waste from Mellon College of Science

CMUSAFE VIDEO SERIES: NEW EMERGENCY COMMUNICATIONS TRAINING



Screenshot of the Emergency Communications training video

Last Fall, Enterprise Risk Management, in collaboration with University Police, Computing Services - Media Services, and student actors from the School of Drama, filmed a new CMUSafe training video, titled Emergency Communications. Topics covered in the video include Safety and Crime Alerts, CMU-Alert, Rave Guardian mobile app, emergency blue light devices and classroom emergency locks.

The goal of the CMUSafe video series is to provide safety and emergency training as well as awareness of the emergency preparedness resources available on campus.

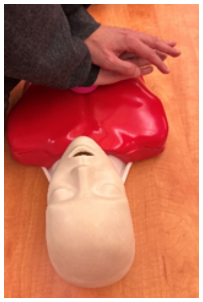
This latest video expands the series, which also includes topics covering Shelter in Place and CMU-Alert. ERM and University Police will continue to produce content that will be added to series. If you have a suggestion for an emergency preparedness training video, or would like to arrange emergency preparedness training for your department or team, please contact ERM's Risk Operations team at risk-operations@andrew.cmu.edu. ◆

CMUSAFE AMBASSADOR FORUM

On February 22 DRBC, Emergency Preparedness held its most recent CMUSafe Ambassador Forum. These forums provide an opportunity for the over 220 faculty and staff who volunteer to be CMUSafe Ambassadors. The by monthly forums are used to keep CMUSafe Ambassadors up to date on new and changing emergency preparedness news and initiatives. They are also provided with updates on upcoming additional training opportunities. During the forum Ambassadors heard presentation from CaPS, Student EMS and our Fire Safety team on what they do, resources they provide, how they are utilized in emergencies and updates on special projects. CMUSafe Ambassadors are crucial assets in assisting CMU emergency management in disseminating information and assisting with emergency response procedures. We appreciate all who volunteer for this program and are always looking to add to this vital group.

While the Forum provides a means to distribute additional emergency preparedness information, a majority of this information can be found on our CMUSafe Ambassador website. It is a great resource, providing information on emergency preparedness and fire safety. As well as emergency preparedness information videos, links to safety training available to our community, our Emergency Action Plan poster and resources to find an Ambassador in your area or volunteer to become one. The CMUSafe Ambassador program demonstrates our community's commitment to keeping our campus safe and always being prepared. ◆

ERM OFFERS CPR/AED TRAINING



ERM is offering several CPR/AED training classes this spring. Participants will learn how to recognize the signs of a sudden cardiac arrest, when to notify emergency medical services, and how to perform CPR.

Hands-on training will enable those who attend this class to become familiar with an automated external defibrillator (AED) and to successfully operate it in an emergency. Participants who complete the training will receive a two-year certification from the American Heart Association.

Training sessions will be held **Tuesday, April 4, 10:30 a.m. – 12:30 p.m.** and **Friday, May 12, 10 a.m. – Noon** in the EHS Conference room, Facilities Management Services Building, Room 307. You can register through SciShield (formally BioRaft).

Emergencies can strike at any time, and it may take several minutes before help arrives. Having knowledge of CPR and the use of an AED can save lives. ◆

ERM STAFF PARTICIPATES IN EMPLOYEE RESOURCE GROUPS (ERG)

On Feb. 2, the Latine ERG hosted a panel discussion "The Only Latinos in the Room" at the School of Computer Science, Gates & Hillman Centers (GHC) Rm. 6501 and via Zoom.

During the event, Belmary Lorcas (CFA), Francisco Molina (ERM), Jose Andre Morales (SEI) and Gladys Perez Sriprasert (HEINZ) shared their personal and professional journeys and challenges and the role their cultural background has played in their professional lives. They also offered their opinions on the present and future of the Latin community, and shared advice to overcome challenges and be successful.

ERGs are voluntary, employee-led groups that provide opportunities to foster a diverse, inclusive workplace. They provide opportunities to share experiences and create a sense of belonging and awareness.

More information about the CMU ERG groups is available on the Human Resources website. ◆

CMU panelists (from left to right): Belmary Lorcas (CFA), Francisco Molina (ERM), Jose Andre Morales (SEI), and Gladys Perez Sriprasert (HEINZ). Photo credit: Human Resources

KALIE HOOVER PASSES CERTIFIED SAFETY PROFESSIONAL EXAM

Kalie Hoover, EHS Technician, Research Safety, successfully obtained the Certified Safety Professional (CSP) designation from the Board of Certified Safety Professionals (BSCP). The CSP designation is awarded to experienced health, safety and environmental professionals after passing the certification exam.

Certified Safety Professionals are persons who perform at least 50% of professional level safety duties, including making worksite assessments to determine risks, assessing potential hazards and controls, evaluating risks and hazard control measures, investigating incidents, maintaining and evaluating incident and loss records, and preparing emergency response plans. ◆

STAFF SPOTLIGHT

Tim Flaherty joined Carnegie Mellon University on Oct. 3 as Environmental Health and Safety's Fire Safety Manager. Tim comes to us from the Township of Pine, where he worked as a fire marshal responsible for community fire prevention and code enforcement. Tim holds a bachelor's degree in Safety Management from Slippery Rock University, and master's degree in Organizational Leadership from Geneva College. He is a PA Uniform Construction Code certified code official. Some of his additional certifications include Building Plans Examiner, Commercial Building Inspector, Fire Inspector, Fire Plans Examiner and Mechanical Inspector. Tim is also an adjunct instructor for CCAC's Fire Science Administration A.S. degree program and commonly instructs Fire Protection Systems, and Fire/Emergency Services Safety and Survival courses. He is currently an active firefighter with the Wexford Volunteer Fire Company. Tim's role at CMU is to work with the fire safety team to provide management and direction for fire and life safety programs. ◆

Rebecca Cochran is the newest member joining the Environmental Health and Safety team on October 10 as a Biological Safety Technician. Rebecca graduated from Edinboro University of Pennsylvania with a bachelor's degree in Biology and a minor in Bagpiping. She has prior work experience in clinical laboratories, healthcare and emergency medicine settings.

When asked why laboratory safety is so important, she provided the following answer:

"My previous work experience has been in laboratory settings, and I have taken my fair share of safety training courses. After my first week at an extraction laboratory, I saw inaccessible eyewash stations, blocked first aid kits and no action plans on what to do in case of an emergency. I did initially express that these practices didn't seem safe. However, it was dismissed as they said they know best.

After only 3 months working in the laboratory, an Erlenmeyer flask exploded under vacuum in my face while doing filtration. The flask contained ethanol and THC extract. If I had been working alone (they had no procedures in place to not work alone or limits while working alone) I would not have been able to make it to the eyewash station. I thankfully did have a coworker help me to the eyewash.

Post eyewash, no one knew what to do. Other departments came to just stare. I had to advocate for someone to find HR and for them to provide the care I needed. I suffered corneal abrasions on both eyes and chemical burns on my face and legs. Eye protection was not required near any work in the lab. However, I was wearing a lab coat and gloves.

During the investigation, coworkers discovered that the flask was known to explode under pressure. If I had not taken any safety training, I would not have known what to do during the situation. My only regret was that I didn't advocate more for safer practices within the laboratory.

There are reasons to take safety training. There are also reasons for safety protocols. If you ever feel a situation is unsafe, remove yourself from the situation until you can get clarification or help. It is not worth an injury." ◆

Laboratory where the incident occurred (non CMU affiliated location)

ERM WOULD LIKE TO HEAR FROM YOU!

We encourage all members of the Carnegie Mellon University community to submit safety improvement ideas that enhance personal safety on campus or the safety of the greater community. Your participation will help raise safety awareness! Please submit your safety concerns and ideas to safety@andrew.cmu.edu.

If you have any suggestions for our next newsletter, please submit your ideas to Mary Sickles at msickles@andrew.cmu.edu. ◆

SEE SOMETHING? SAY SOMETHING!

If you see something suspicious, help ensure the safety and well-being of the CMU community by calling the CMU Police Department at 412-268-2323 or CMU's Ethics Hotline at 877-700-7050. ◆

CMU SAFE
See Something.
Say Something.