Chantene Zichterman-Delgado

From: laboratory-safety-request@lists.uchicago.edu on behalf of Chantene Zichterman-Delgado <chantene@uchicago.edu>
Sent: Wednesday, February 9, 2022 8:45 AM
To: laboratory-safety@lists.uchicago.edu
Subject: [Laboratory-Safety] SAFELab Newsletter Winter 2022

THE UNIVERSITY OF CHICAGO | Office of Research Safety

SAFELab Newsletter

(Safety Advisory Forum for Experimental Laboratories)

Winter Qtr 2022

Contents:

UChicago forward
goforward.uchicago.edu

Upholding Public Health Requirements

Use the UCAIR online form to anonymously report concerns about compliance with COVID-19

health requirements.

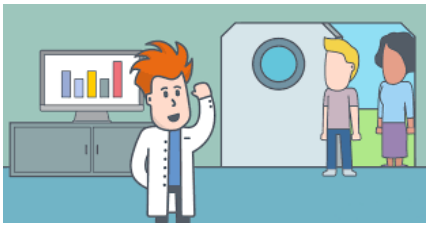
University of Chicago Accident and Incident Reporting (UCAIR)

UCAIR provides a user-friendly mechanism for reporting work-related accidents and incidents to EHS and ORS. For more information about UCAIR, visit the FAQs page. We also encourage the reporting of unsafe conditions observed on campus.

Please remember to first call 123 (on-campus phone) or 773.702.8181 (off-campus phone) for accidents requiring emergency response to ensure the appropriate emergency response personnel are notified.

Involved individuals, supervisors, affected persons, or witnesses can submit reports. Anonymous reporting is available for events that do not require medical treatment.

Educational Assignments and Visiting Researchers



Please note that in-person Educational Assignments have resumed with the following exceptions:

- **NEW! Minors (<18) are now allowed to participate in on-campus (in-person) Educational Assignments! Please complete the request forms found here** https://researchsafety.uchicago.edu/programs/educational-assignments-and-other-research-activities/ **.**
- There are COVID-19 guidelines for all students at UChicago. Click here to view the new guidelines.
- **For Visiting Researchers** doing professional work, please complete the forms to initiate the process.
- All visitors must comply with the COVID-19 visitor guidelines.

Please submit the request forms available on our website. Contact the ORS Administrator with any questions.

Visitors on Campus

The UChicago GoForward website provides guidance related to visitors on campus. Please visit https://goforward.uchicago.edu/visitor-information/ for more information.

Vendors must complete the Vendor Access Form prior to arriving.

For more information about **current COVID-19 public health guidelines**, please visit the UChicago Forward website.

Research Safety Training

To satisfy social distancing efforts, all training for the following are accessible online either via live Zoom training or a webinar. Click here to sign up.

- **Radiation Safety**
- **Chemical Hygiene Plan (Lab Safety)**
- **Comprehensive Biosafety**
- **IATA Shipping Dangerous Goods**

Please note, you do not need to have an EHSA account to take training, but when trying to access EHSA without an account, you will be rejected. Please contact the EHSA administrator to request access.

HAZWOPER Certification

(Hazardous Waste Operations and Emergency Response)

ORS offers a HAZWOPER Certification course specifically for work at UChicago. There are 2 courses available:

- 8-hour refresher for those who already have a certification (must show proof).
- 40-hour course for new trainees.

If anyone is interested in this course, please contact the ORS Administrator.

Training Module in Environmental Health & Safety Assistant (EHSA)

- To access **online training modules**: https://ehsa.uchicago.edu/training
- To register for **live training sessions**: https://ehsa.uchicago.edu/trainingregistration

Contact the EHSA Administrator for technical assistance.

Research Safety Updates

Staffing Update

The Office of Research Safety would like to introduce and welcome two new employees:

Amal Kadem as the new **Associate Health Physicist** in the Radiation Safety unit.

David Gordon as the new **Laboratory Safety Specialist** in the Pritzker School of Molecular Engineering.

Training Lab

By: Christopher Delgado, BSD Lab Safety Specialist

We are excited to be expanding our program! Members from the ORS team have been very busy preparing our very own laboratory space to use in the near future. The following activities are just a few examples of what we plan to do:

- Relevant location to conduct in-person or Zoom training;
- Mock laboratory for training purposes;

- One-on-one or small group demonstrations:
    - proper set up and use of a biological safety cabinet (BSC);
    - proper set up and use of a fume hood;
    - donning and doffing of personal protective equipment (PPE);
    - chemical segregation and storage;
    - transferring solvents
    - hazardous material spill clean-up;
    - hazardous waste handling;
    - chemical storage;
    - laser eyewear storage, laser alignment, Class 3b and Class 3 laser safety
    - decontamination of radioactive material;
    - radiation survey meters
    - and more!
- Applied biosafety research for the purpose of streamlining biological safety practices;
- Prepare training videos for lab-related activities described above.

Lab Orientation Checklist

By Jay Schroeder, Biosafety Officer

Labs onboarding new employees/students should use the "Research Lab Orientation Checklist" to ensure that they have a good idea of what the standards are for lab safety requirements. It lays out the general requirements, and gives an idea of what safety equipment should be pointed out to new hires.

Labs or programs with groups of new students should contact us to schedule an orientation.

Please reach out to us at researchsafety@uchicago.edu

Chemical Safety Blog

Shut the Sash

By Ian Hoppie, PSD Lab Safety Specialist

Chemical Fume Hoods are an important engineering control here at University of Chicago and research labs around the world. When used properly, fume hoods offer a significant degree of protection for users in labs. They prevent the release of hazardous substances into the laboratory space by controlling and then exhausting hazardous and/or odorous chemicals.

Influenced by other Universities nationwide, the Physical Sciences Division put forth a ***Shut the Sash*** campaign in Searle which has rapidly reduced fume hood energy consumption by 35%. These savings, along with other building energy efficiency measures, have reduced total building energy consumption by 18%. The Office of Research Safety, Physical Sciences Division and Pritzker School for Molecular Engineering have partnered to encourage people ***Shut the Sash***. You may have already seen ***Shut the Sash*** reminders on the sides of hoods throughout the campus, but it is up to the users of the hood to ***Shut the Sash*** when not in use.

Why? To promote a healthier, greener campus. Shutting the Sash of a fume hood you can reduce energy consumption, create a safer lab environment, and make it more comfortable in a lab…

- Conserve energy:

Although some labs have newer models of fume hoods that can be programed to shut themselves after some time, this is not true for older fume hoods which can unfortunately be a significant energy drain. An open fume hood can use as much daily energy as 4 average homes. They also use ten times more electricity than a hood with the sash closed. Shutting the sash is the best way to combat the energy waste.

- Safety:

When the hood is not in use, a researcher is not physically working on an experiment under a hood, but items can remain inside. This not only reduces the energy needs of the hood but also isolates the hazards that can be found in the hoods. Simply just shut the sash.

- Healthy climate:

There are also other advantages besides safety and energy savings when shutting the sash. A closed hood can make a lab more comfortable. It can help control humidity in a lab, reduce the overall noise in a lab, and reduce overload on a buildings HVAC system. This can be especially useful in a building such as Gordon Center for Integrative Science.

If you have any questions about Chemical Fume Hoods you can contact the Office of Research

Safety.

For more information about the ***Shut the Sash*** Program:
https://physicalsciences.uchicago.edu/news/article/cutting-the-carbon-footprint-in-uchicago-labs/

RAMP Up Continued:

by Chandra Man Karki, Chemical Safety Officer

R **= Recognize Hazards**
A = **Assess the Risks of Hazards**
M = **Minimize the Risks of Hazards**
P = **Prepare for Emergencies**

In our last edition of Newsletter, we introduced "RAMP up for Safety." In this edition we will discuss :
M = **Minimize the Risks of Hazards**

In our previous editions, we discussed how to recognize hazards and assess the associated risks. Minimizing risks is the most important steps of the RAMP up method. The National Institute for Occupational Safety and Health (NIOSH) has developed the concept of hierarchy of controls shown below which explains the approaches available and their relative effectiveness to minimize the hazards.

Tips:

- If possible do not work with particularly hazardous substances (PHSs)
- Apply hierarchy of controls to select the most effective method to minimize risks
- Try to substitute with less toxic chemiclas or processes
- Write standard operating procedure (SOP) if you have to work with PHSs
- Complete all the required training
- Do PPE assessment
- Reach out to ORS if you need support to RMAP up
    - researchsafety@uchicago.edu

- 773-834-2707

For more info go to ACS chemical and laboratory safety page (https://www.acs.org/content/acs/en/chemical-safety/basics.html).

Next ChemSafety TIP will be on P **Prepare for Emergencies**, stay tuned!

Biological Safety Blog

ACGIH Pandemic Response Task Force

By Chantene Zichterman-Delgado, Administrator

In the past few weeks, the image below has been circulating around the internet, but where does it come from? An organization named "The American Conference of Governmental Industrial Hygienists" (ACGIH) created it based on a study. ACGIH is a reputable 501(c)(3) charitable scientific organization that advances occupational and environmental health. They share data in their monthly peer-reviewed journal, the Journal of Occupational and Environmental Hygiene (JOEH), as well as host various professional conferences, seminars, and publications. Some publications include work practice guides, and their annual editions of "*TLVs® and BEIs®*" book (Threshold Limit Values and Biological Exposure Indices).

In 2020, the ACGIH Board of Directors formed the Pandemic Response Task Force. The team gathered resources to prepare fact sheets to help guide various industrial and workplace settings to better understand and address how SARS-CoV-2 is transmitted for the goal of safety and prevention. The team is led by Dr. Lisa Brosseau, and this image is just one of their fact sheets. For more fact sheets and resources related to workers health in the SARS-CoV-2 (COVID-19) pandemic, visit https://www.acgih.org/covid-19-fact-sheet-worker-resp/

All information can be found at www.acgih.org

Radiation Safety Presents: Laser Faire

(Laser Safety Blog)

What is Radiation and Radiation Safety?

By Chantene Zichterman-Delgado (Administrator), Krista Dillingham (Sr. Health Physicist), and Charlie Fitzpatrick (Health Physicist)

The first step is to understand what radiation is and why we use it at the University/Medical Center? In a relatively quick and simple explanation...

Radiation is energy emitted from an object in form of a waves or particles which travel through space. Radiation encompasses the entire electromagnetic spectrum which includes radio waves, microwaves, infrared, visible light, ultraviolet, x-rays and gamma rays. The University's Radiation Safety team focuses most of its attention on ionizing radiation, this is radiation that has sufficient energy to disrupt at a cellular level and alter DNA, which can cause cancer.

The three most common types of ionizing radiation used on campus and in the medical center are **alpha particles, beta particles, and gamma rays**. Alpha particles are relatively large but cannot penetrate matter very far. Beta particles are small and can penetrate farther, while gamma rays have almost no mass and can penetrate very deep into matter. To protect patients and laboratory workers, proper protective shielding is necessary when using radioactive materials. Protective shielding differs for each type of radiation, as alpha can be blocked with skin or paper, beta can be blocked with plastic or aluminum, and gamma can be blocked with concrete, lead, or steel. The University and Medical Center mostly uses beta and gamma emitting radiation.

When using unsealed radiation there is a potential for radioactive contamination. This is where the Radiation Safety team comes in. Radioactive contamination is radiation found somewhere it is not intended – like counter surfaces, shoes, and skin. Radiation survey equipment allows the Radiation Safety team to locate and radioactive contamination and then take the proper measures to reduce exposures. A big part of what the team does is work closely with high dose radiotherapy patients. They prepare hospital rooms with tarps plastic coverings on surfaces, and once the therapy is complete, they check for contamination. They safely gather any "hot" (contaminated) coverings and place them in a secure storage area until the radiation levels fall to a safe level through the natural decay process. Then the waste can be thrown in the normal garbage!

The goal of the Radiation Safety team at UChicago is to ensure that all workers and the public keep their radiation dose "ALARA" (As Low As Reasonably Achievable). Radioactive materials users utilize three basic protective measures to maintain a dose that is ALARA: time, distance and shielding. Spending less time around radiation, staying farther away from radiation, and using the proper shielding material between yourself and the radiation will all reduce unwanted exposure.

Around Campus

Joint Research Safety Initiative (JRSI)

UChicago's student-led safety team

JRSI is currently recruiting interested students to join their team! Check them out here: https://jrsi.uchicago.edu/

JRSI Joint Research Safety Initiative

Interested in joining JRSI? Please contact the ORS Administrator.

Which Safety Unit Do I Call?

Have a question or need help but are unsure who to contact? Visit the new "Who Does What?" page available on the Environmental Health and Safety's website (direct link also available on the ORS website) where you will find a comprehensive list of activities, definitions and who to contact.

There is a search function that will help make navigation easier. If you have any questions, please contact us at researchsafety@uchicago.edu.

For emergencies, always contact campus police at 123 (campus phone), or 773-702-8181.

Hazardous Waste Pickup

Campus laboratory hazardous waste pickups regularly occur on Thursday's. Medical Center research laboratory hazardous waste pickups occur on Wednesday's.

For campus locations, enter waste pick-ups through EH&S Assistant. If you need access to the EH&S Assistant, contact Environmental Health and Safety at safety@uchicago.edu.

For laboratories located in the Medical Center, contact the Environmental Health and Safety Medicine Office at 773.795.SAFE or safety.office@uchospitals.edu.

Thank you for your continued cooperation with ensuring safety at the University of Chicago. Please feel free to contact Environmental Health and Safety at safety@uchicago.edu or 773.702.9999 with any questions.

- Click here to learn more about Hazardous Waste handling.
- Click here to view the Hazardous Waste Disposal Flow Chart

Knock Knock... Who is in your Lab?

By Jeff Melton, BSD Lab Safety Specialist

The Office of Research Safety needs your help to keep track of personnel working in your laboratory.

The EHS Assistant (EHSA) system is used to track who is working in a lab. To view the current roster in your lab, click on the **Worker Registration** icon. This section allows you to add new researchers and remove people who are no longer there. We only need to know about people who perform wet lab bench work or work with lasers - clinical staff, computational researchers, and office managers do not need to be added.

Click here to view the guide for adding and removing workers with step-by-step instructions.

Laboratories working with recombinant DNA, pathogens, or biological toxins are required to establish an approved Institutional Biosafety Committee (IBC) protocol. All laboratory members working with such biohazards need to be added to the IBC protocol. These protocols are tracked in the AURA IBC protocol management system, not EHSA. In AURA, adding or removing people is accomplished by filing a **Personnel Funding Amendment**. While the Personnel Funding Amendment is processed very rapidly, please note:

- The PI must submit the amendment in AURA - although other workers in the lab can edit the protocol, only the PI can click the submit button.
- After the amendment is approved, everyone added must log in to AURA, review the protocol, and acknowledge that they have been added.

If you have any questions about adding or removing people, please reach out to us at researchsafety@uchicago.edu

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Medical Payments for UChicago Student Injuries (MedPay)

What is covered?
Out-of-pocket costs incurred for emergency medical care for accidents or injuries sustained during assigned responsibilities while in laboratories or other research activity, regardless of fault.

Who is covered?
UChicago students injured during assigned responsibilities in laboratories or other research activity. Includes enrolled UChicago graduate and undergraduate degree students.

The program is set up for covering emergency care at UCMC and would not apply to non-degree visiting students or injuries that occur in field research. In these instances, students should utilize their health insurance. Additionally, students who are injured abroad can call International SOS for assistance.

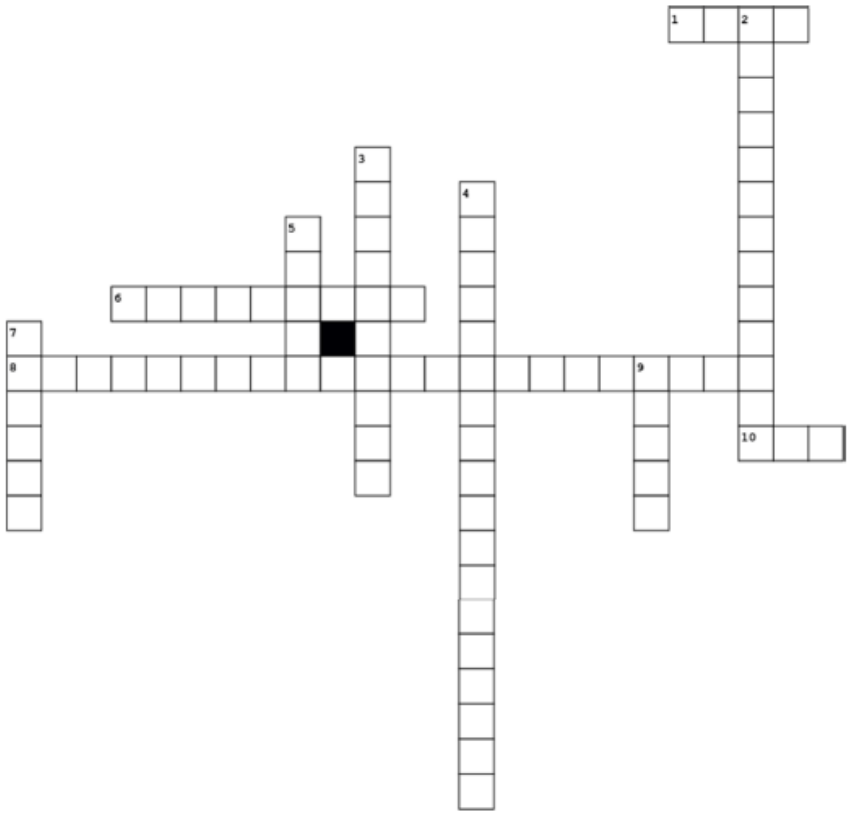
Submitting a timely report of the injury via UCAIR will route resulting medical bills for payment by the Office of Risk Management. It is important that UChicago students identify themselves as UChicago students when submitting via UCAIR.

If a student receives bills for related treatment, they should contact the Office of Risk Management at risk@uchicago.edu.

Any additional questions or concerns should be directed to the Office of Risk Management.

Just for Fun

Crossword Puzzle **(click for pdf)**
By Ian Hoppie, PSD Lab Safety Specialist



Across

1. likelihood of potential damage or harm being done
6. products or their fumes may catch fire easily
8. SOP is an example of what
10. Where to find information on a chemical

Down

2. the minimum protection for the eyes
3. most common route of chemical exposure
4. Fume Hood is an example of what
5. Where should you report an accident or incident
7. source of potential damage or harm
9. The University's fire response plan

Answers:

1. risk
2. safety glasses
3. inhalation
4. Engineering controls
5. UCAIR

6. flammable
7. hazard
8. Administrative controls
9. RACER
10. SDS

Related Links

Office of Research and National Laboratories
Howard Taylor Ricketts Laboratory
Environmental Health & Safety
Medical Center Environmental Health & Safety
Animal Resources Center
Institutional Care & Animal Use Committee
Institutional Biosafety Committee
Marine Biological Laboratory
Duke Infectious Disease Response Training
Joint Research Safety Initiative

Questions? Comments? Suggestions? Love?

Does your department have any information to share in our newsletter?

Would you like to see something specific? Contact the ORS Administrator

Learn more about the Office of Research Safety or our partners by visiting our website.

CREDITS:

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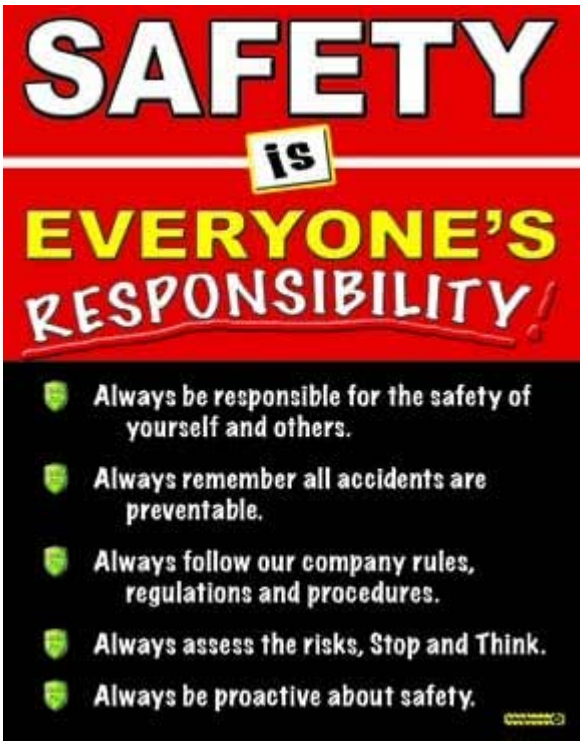

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