Emergency Preparedness for Research Labs

EH&S Office - 2019
What Constitutes a Major Emergency in Your Lab?

- Power Outage
- Flood
- Loss of Water
- Loss of Heat
- Loss of Cooling
- Loss of Fume Hood Exhaust
- Fire
- Pandemic Influenza
- Theft
- Acts of Violence
- Other???
Can Your Lab Survive an Emergency?

• If an emergency occurs in your lab or that affects your lab and/or whole building, are you prepared? Is your staff prepared?
• Can your research survive intact?
Emergency Preparedness for Research Labs

• Emergency preplanning and preparedness can assist you in ensuring that you and your staff can safely manage an emergency and recover from such an emergency.

• It can also enable your research to continue after an emergency.
What do you need to do to Prepare, Respond and Recover from an Emergency?


http://www.albany.edu/ehs/

This guidance document reviews what should be done before, during and after a major emergency affecting research labs.

Also, review and complete Emergency Preparedness Checklist.
For Small Emergencies

For handling small emergencies, e.g., small chemical spills, go to the University’s Chemical Hygiene Plan.

https://www.albany.edu/ehs/pdf/CHEMICALHYGIENE17.pdf

Also, ensure all lab staff attend the mandatory Lab Safety Training offered by EH&S.
University Emergency Number

911

Police-Fire-Medical EMERGENCIES

Cell Phones 518 442-3131
In Addition.....

• Call 518 442-3480 for Facilities’ issues, e.g., water leaks.
• Use Emergency Blue Light Phone.
• Pull Fire Alarm, evacuates building and summons aid (AFD, UPD and Power Plant).
Laboratory Priorities

1. Protect Human Life
2. Protect Research Animals
3. Protect Property and the Environment
4. Maintain Integrity of Research
Vulnerability Assessment

- What types of emergencies are most likely to occur?
- What is their possible effect on laboratory operations?
- Focus on those events with higher impact and higher likelihood.
NOTIFICATIONS & RESPONSE:

• Have all lab staff, including students, sign up for *UAlbany Alert* through MyUAlbany to receive emergency notifications.

• *UAlbany Alert* is an emergency contact system that enables the University to send out critical information about serious campus emergencies via email, phone and text messaging.
Preparing for an Emergency in the Lab

Things To Do Now:
• Prepare an Emergency Contact List.
  a. Post Emergency Contact List in Lab.
  b. Give Copy to Building Manager and EH&S.
• Designate individuals who would most likely be available to come in 24/7, in the event of an emergency.
Critical Lab Equipment

• Create a list of the Lab’s critical equipment, e.g., Ultra Low Freezer.
• Post list in Lab.
• Is this critical equipment on emergency backup power?
• If not on emergency backup power, determine which equipment should be manually shut down or unplugged during a power failure, in the event the power returns while the lab is unattended and a hazardous condition is created.
• This equipment should also be included on the list.
Critical Samples & Data

Determine what materials are most valuable or irreplaceable.

Is redundant storage available, possibly in another building or off-site?

Lab notebooks?
DATA

Backup data? Store on a secure University server, e.g., CAS Computing Network Drive.

The ‘3-2-1-rule for Backup’ is a simple way to remember best practice:

3. Keep 3 copies of important files
2. on 2 different media (if possible)
1. with 1 copy being stored offsite (or offline)
Train All Lab Staff

Securing the lab in the event of an emergency:
• *Shut down* experiments
• *Turn off* lab equipment (Refer to Equipment List)
• *Safely secure and store* hazardous materials
• *Close* fume hood and biosafety cabinet sashes
• *Check* equipment on emergency backup power
• *Relocate* critical data or samples, if necessary
• *Secure and lock* lab upon leaving
• *Make* any necessary notifications.
PREPARATION FOR THE LAB

• Flashlights
• Batteries
• Emergency Contact Numbers
• Cell Phones
• List of Critical Equipment
• First Aid Kit
Lab Staff Preparation

- Change of Clothing and Shoes
- Medications
- Contact Lens Solution
- Nonperishable Snacks
- Bottled Water
- Blanket, Jacket or Fleece
Power Outage in Lab

• Staff - Safety
• Critical Equipment - Freezers
• Reactions – Shut down
• Fume Hoods – Will either be off or have limited airflow
• Biosafety Cabinet – Will be off
Flood in the Lab
Flood in the Lab

• Usually due to human error or failing infrastructure
• Are there items currently stored on the lab floor that should be stored up higher?
• If our custodial staff has to come into your lab to vacuum up flood water, is there anything they should not go near, as it could cause them harm?
Loss of Water

• If your lab loses water, what would happen?
• What reactions would have to be stopped?
• Handwashing or bathroom facilities would not be available.
• The lab would need to be secured and staff would have to be sent home.
Loss of Heat or Cooling

• If the University lost it’s ability to heat or cool, what would happen to your research or your lab?
• Would lab operations have to be suspended?
• Would your research samples be safe?
• If not, do you have an alternate location to move your samples to?
• Is your lab staff okay?
• Does your lab staff check the fume hood before beginning their work in the hood?
• Does your lab staff know what to do, if the hood is not working? (518 442-3480)
• Do you have items in the hoods that will have to be moved or reactions shut down?
• Are all chemical containers sealed and gases turned off?
FIRE

• What happens if there is a major fire/explosion in your lab or in the building?
• Most likely there will be smoke and water damage after the fire is put out.
• The water and soot may be contaminated.
• You may not be able to access your lab for a couple of days or even longer.
Pandemic Influenza

• A pandemic could affect as many as 40% to 50% of the workforce for 4 to 8 weeks during peak influenza illness.
• Cross-training is important.
• Encourage flu shots!
• Promote Handwashing!
THEFT

• DO NOT Leave Labs unattended with the door(s) unlocked.
• Lock up extremely toxic materials.
• Immediately report all thefts to UPD and your Building Manager.
• Report suspicious persons or activities to UPD. (Virginia Tech Shootings – Cho and Norris Hall)
• If you see something, say something.
Acts of Violence
RUN. HIDE. FIGHT. – Thanks to Ready Houston

RUN
When an active shooter is in your vicinity:
> If there is an escape path, attempt to evacuate.
> Evacuate whether others agree to or not.
> Leave your belongings behind.
> Help others escape if possible.
> Prevent others from entering the area.
> Call 911 when you are safe.
Emergency Preplanning and Preparedness

By failing to prepare, you are preparing to fail —Benjamin Franklin

Questions?