Roger Williams University Procedures for Unplanned Power Loss in Academic Laboratories, Workshops, and Art Studios

Unplanned power loss in academic laboratories, workshops, and art studios can potentially cause many kinds of damage, including damage to equipment, environmental contamination due to inoperative air emissions control equipment such as fume hoods or dust collection units, illness or injury to invertebrates/vertebrates, and/or the loss of student, staff, and faculty research and projects.

Planning response actions in advance and executing them safely during a power loss even can help prevent these kinds of damages from occurring.

Reminder: Notify Public Safety of all emergency situations at 401-254-3333

Immediate Response to Unplanned Power Loss

- **First: Address immediate potential hazards**
  - Immediately halt all experiments/projects/processes in progress
  - Shut off any radios, TVs, or other listening/watching devices
  - Shut off all open flames and fuel sources, including natural gas valves, Bunsen burners, cylinders, and butane canisters for biosafety cabinet usage
  - Shut off all thermal, laser, and UV devices in use, including hot plates, microwaves, UV gel readers, lasers, CNC Mill, close liquid nitrogen dewars, etc.
  - Shut off and/or put down any hand, power, or tabletop tools
  - Close, cover and secure all chemical containers, cylinders, biological containers, specimens, agar/growth plates in correct storage areas (do not put in fume hood or biological safety cabinet if the units are showing low or no flow)
  - Place any broken glass or sharps into their designated waste collection containers
  - Place any live invertebrates or vertebrates back into their tank or container and secure lid/door in usual manner
  - Close fume hood sashes
- **Second: Address items which can be hazardous upon start-up**
  - Shut down and unplug any active items which may create a hazard by starting up unexpectedly or unattended (dust collection systems, UV gel reader, centrifuge, rotovap, 3-D printers, etc.)
- **Third: Address items which can be damaged by starting up unexpectedly**
  - Shut down (and unplug as needed) any electronic equipment which could be damaged upon restart (computers, microscopes, table tools, etc.)

Short-Term Response to Unplanned Power Loss

- Students (including work studies, research students, assistants, etc.) must leave the building unless otherwise approved
- Lock all labs, shops, and studios which have been safely "closed out" using the above procedures and do not allow use/access until further notice
- Notify EHS of any special storage or waste needs
- Only work directly supporting emergency management/power restoration is permitted in the labs, shops, and studios until the issue has been resolved, or unless otherwise approved

Additional Short-Term Response Actions Specific to MNS:

- Have designated representatives from each department/lab/etc. check all chemical storage areas, biological storage areas, refrigerators, and freezers. Determine which units do not have power and what are the necessary timeframes for relocating stored items to prevent loss or damage (e.g., -80 freezer items OK for 3 hours, refrigerator items OK for 2 hours)
- Activate initial steps of IACUC Emergency Animal Care Plan
    - Designated representative check on status of vertebrates, seawater pumps, oxygen in tanks, etc. Correct immediate needs, and determine needs for next few hours, as well as for 24 hours out, 48 hours out, etc.
    - Activate call chain
    - Determine which RWU faculty/staff (non-student) are available to meet animal care needs for next few hours, 24 hours out, 48 hours out, etc. - keep to a minimum while still safely meeting staffing needs
- Dry ice and liquid nitrogen can only be used as specified by manufacturer to keep items cool - **do not allow these chemicals to openly off-gas into closed room or closed freezer, refrigerator, or walk-in** - this practice can create serious potential inhalation hazards for employees
- Place "OUT OF ORDER" signs on any fume hoods or biosafety cabinets which are not working. Close any chemical/biological containers needing fume/organism control in air-tight container and move to separate safe, designated storage area.

Long-Term Response to Unplanned Power Loss

- Refer to the University's Emergency Response Plan (ERP) (link on following page)
- MNS: Continue to follow IACUC emergency procedures and protocols in addition to ERP

Links to RWU Emergency Planning Resources

- RWU Emergency Response Plan
- RWU Severe Weather Preparedness Plan
- RWU Emergency Action Plan Template
- RWU Alert System - Updating Your Emergency Contact Information
- IACUC Emergency Animal Care Plan (MNS)
- IACUC Emergency Business Plan (MNS)