

- ✓ Close all lab refrigerators and freezers and avoid opening them. Fill empty space in freezers with frozen bottles of water.
- ✓ For areas with electronic locks, know if locks are functional in the event of a power failure.
- ✓ Help coworkers move out of darkened areas, and if asked to leave the area, please do so immediately.

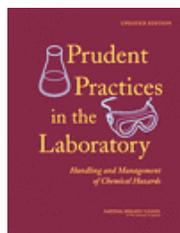
### **When the Power Returns**

- ✓ Upon returning to your work area, check for any strange odors. Call Public Safety if strange odors or spills are found.
- ✓ Reset/restart/check equipment as necessary.
- ✓ Once the fume hoods have been restarted, check that the air flow has been restored and keep the sash down for at least 5 minutes to dispose of any vapors accumulated in the hood.



## **Laboratory Continuity of Operations (COOP) Checklist**

- List of high-priority operations
- List of personnel who can perform these operations
- Communication plan
- Data backup plan
- Leadership succession
- Key dependencies within the organization (e.g., essential goods and services that other departments or groups provide) and alternatives
- Key dependencies outside the organization, with alternative vendors
- List of essential equipment, purchase records, and information on how to replace it permanently or temporarily
- Restoration plan and priorities



For more information, see:  
*Prudent Practices in the Laboratory*  
<http://www.ncbi.nlm.nih.gov/books/NBK55878/>  
*UMDNJ Laboratory Safety Plan*  
<http://www.umdnj.edu/eohssweb/publications/lsp.htm>  
*UMDNJ Emergency Response Guide*  
[http://www.umdnj.edu/eohssweb/publications/emergency\\_response\\_guide.pdf](http://www.umdnj.edu/eohssweb/publications/emergency_response_guide.pdf)

# Power Failure



## Emergency Procedures



**NEW JERSEY  
MEDICAL SCHOOL**

University of Medicine & Dentistry of New Jersey

*Think Safety!*

## Planning Ahead

Most laboratory buildings experience occasional brief periods of power loss. Such instances may be minor disturbances or could damage equipment or ruin experimentation. Longer term power outages may cause significant disruption and loss. It is prudent to consider the effects of long-term and short-term power loss and implement plans to minimize negative outcomes.

Planning makes any emergency easier to handle, and the emergency plan for NJMS includes a well-defined list of procedures for use in the event of a power failure.

## Before the Power Fails

- ✓ Designate two emergency contact persons for each laboratory who can be reached 24 hours a day. They should be familiar with the lab and have adequate knowledge of the chemicals and procedures performed in the laboratory.
- ✓ Post a **current** list on the door of any room with equipment that runs unattended. Maintain a list of all critical equipment that will require backup power in the event of a power failure.
- ✓ Have working flashlights readily available in all work areas; in every desk if possible.
- ✓ Know the location of the department emergency bag and rechargeable flashlight.



- ✓ Do not overload any power strips; restrict all operation of power cords to emergency use only. Know the location of emergency power outlets.
- ✓ Know the procedures for safely concluding hazardous chemical procedures during a power failure.
- ✓ If possible, program equipment that operates unattended to shut down safely during a power failure and not restart automatically when power returns.
- ✓ Make a list of equipment that must be reset or restarted once power returns. Keep instructions for doing so close to the equipment.
- ✓ Make sure that all fume hoods have a nonelectrical indicator that they are running. This could be as simple as a strip of hanging tissue paper that will flutter when the fume hood is running.
- ✓ Ensure that no flammable chemicals are stored in domestic refrigerators and freezers. When the power returns to these appliances, a reaction may be ignited by the refrigerator light or other electrical source.
- ✓ Perform regular backups of all critical computer systems and data. Consider use of uninterruptible power supplies (UPSs).



## While the Power is Off

- ✓ Turn off and unplug all non-essential electrical equipment, especially computers, printers, and other devices with sensitive circuitry (including autoclaves and laminar flow hoods). This will reduce the risk of power surges and other unforeseen damage or injury that could result when the power returns.
- ✓ Cap all open containers of solvents to reduce volatile chemical vapors that may drift into the room air and cause exposure or explosion risks.
- ✓ Discontinue all work in fume hoods and close each hood sash.
- ✓ Secure current experimental work. Make sure that experiments are stable and do not create uncontrolled hazards. If the work is to be transported to a safe location, make sure to avoid any hazardous chemical spills during the move.
- ✓ Shut down experiments that involve hazardous material or equipment which automatically restarts when power is available.
- ✓ Turn off all spare gas cylinders at the tank valves. (Exception: if a low flow of inert gas is being used to control a reactive compound or mixture, the decision may be made to keep the gas on).

