



POWER OUTAGE CHECKLIST

Laboratory Safety Guidance for Expected Power Outage

Unexpected electrical power outages can present a risk to personal safety as well as the potential for damage to sensitive laboratory equipment. Each lab should maintain detailed procedures and protocols in their lab standard operating procedures (SOP) to ensure the safety and security of the lab in the event of power loss. When the loss of electrical power is expected, or likely, the following minimum steps should be taken:

- No laboratory work should be conducted during power / ventilation outage.
- Ensure all chemical reactions/experiments are terminated, all chemicals and biological samples are capped and properly stored, and gas cylinders closed at the valve.
- Lower fume hood and biological safety cabinet sashes to their lowest position.
- If you have chemicals which require low temperature storage, prepare for their storage in the event of long-term outage such as using dry ice.
- Any chemicals which may decompose violently at elevated temperatures should be transferred to a unit with backup power.
- Ensure electrical equipment and cords are raised off the floor in the event of flooding (especially around freezers and refrigerators where melted ice might leak).
- Power down and unplug non-essential, sensitive electronic equipment to protect them from power surges upon restoration of power.
- Ensure electronic equipment which cannot be powered down is surge protected.
- Turn off vacuum pumps and vent lines to prevent backflow.
- Monitor reports of outages in the area and designate personnel to check the lab (if conditions are safe to do so) when normal power is restored.
- Emergency generators can fail, be prepared for such situations, and take preventative actions.
- Ensure laboratory security. Electronic card readers and locks may not work during an outage.
- Maintain photographs of laboratory equipment in the event of damage.

WHEN NORMAL POWER IS RESTORED:

-  Do not enter facilities until it has been deemed safe to do.
-  Carefully inspect all equipment for signs of damage prior to restarting.
-  Ensure all fume hoods and biological safety cabinets are functioning properly before using.



OCCUPATIONAL AND ENVIRONMENTAL SAFETY

Office of Occupational and Environmental Safety

Clemson Centre
391 College Ave. Ste 104,
Clemson, SC 29631
(864) 656-0341