

Laboratory Power Outage Guide

The purpose of this procedure is to prepare faculty, staff, researchers and students for a power failure. Electrical power to the campus can fail, either as an isolated incident affecting a single location (e.g.: tripped circuit breakers or blown fuses) or as part of a larger event (regional power outages or natural disasters) affecting the entire campus. When power failures occur, health and safety issues need to be addressed with hazardous materials and equipment should include the documented procedure(s) below to be used by those working in the laboratory.

Severity of outage

¾ What do I do if there is a localized power outage?

Power is lost at one or more wall receptacle. Laboratory and building lighting and ventilation are not impacted.

- x Leaving the building is not required unless loss of device prevents plug

¾ What do I do if local ventilation (fume hood and other extraction system) is lost?

all wall receptacles are not

- x Stop all work in fume hoods and biosafety cabinets, shut down experiments, unplug all heating devices, seal all open containers and move them to proper storage, lower the sash
- x Depending on the extent of the outage, be prepared to leave the building if necessary
- x Report the issue to Facilities Services

Preparing for a planned power outage

You have been advised of a scheduled power outage in your lab or building. Prepare by taking the following steps:

- x Plan to shorten or pause active experiments which can release harmful vapors.
- x Do not start new experiments that cannot be safely paused during the power outage.
- x Ensure all reagent and waste containers have been capped and moved to the appropriate storage cabinet.
- x Close all fume hood sashes and affix a notice indicating they are not to be used until after the power outage.
- x Ensure that all equipment that cannot go long periods without power is connected to an appropriate generator or battery backed power source. Ensure circuits are not overloaded to prevent tripping during switch over.
- x All equipment that cannot be shut down should be on a sufficiently sized UPS and generator power.
- x On the day before the scheduled outage, power down all equipment to avoid any issues that may be

Unplanned power outage

If there is a sudden loss of power in your laboratory, remain calm and if possible take the following actions to make the laboratory safe as you leave the building

- x Where heating mantles and hotplates are in use, turn the controller to the 'OFF' setting and unplug the heating device.
- x Leave cooling water circulating to chill reactions and minimize vapour release.
- x Cap all reagent containers and move to proper storage.
- x Close all gas cylinders at the main valve. Exception: if a low flow of inert gas is required to prevent moisture or oxygen from coming in contact with reaction mixtures or reagents, maintain the low flow of inert gas.
- x Close all fume hood sashes.
- x If you are working in a BSC, stop work with biohazardous material immediately. Cap and remove all material and decontaminate all work surfaces and the surfaces of vessels containing biohazardous material. Collect waste in an

After any power outage

- Do not enter the building until given confirmation by departmental