Please post or circulate *(Revised: 5/21/01)*

No. 16

FACT SHEET

ENVIRONMENT, HEALTH & SAFETY INFORMATION FOR THE BERKELEY CAMPUS

Be Prepared for Power Failures

Like any other part of the infrastructure, electrical power to the campus can fail, either as an isolated incident (e.g., tripped circuit breakers or blown fuses) or as part of a larger event (regional power outages or earthquake). When power failures occur, health and safety issues may need to be addressed. This Fact Sheet provides building managers and coordinators, department safety coordinators, principal investigators, managers, and supervisors with basic guidance and a list of campus resources to address power failure emergency and response issues.

Should the campus experience a wide-area electrical outage, the Emergency Operations Center (EOC) will partially activate to manage the campus response. To support the EOC, each of the Department Operations Centers (DOCs) will also activate to the extent necessary to support essential operations and response activities.

General

For general information about a power failure, listen to the campus radio station: KALX—90.7 FM. For additional information and updates, contact your building coordinator.

Emergency Lighting

Emergency lighting provides enough light for a safe exit. Batteries in these lights should last a couple of hours, but may fail sooner. It is important that lighting in hallways and stairwells is monitored during a power outage to ensure occupants can exit safely. If natural or emergency lighting in hallways and stairwell begins to diminish to one foot candle (about the light provided by a full moon), building occupants should evacuate the building. Outlet-mounted and handheld emergency flashlights are useful in rooms without windows or areas where work is conducted at night.

E H & S UC BERKELEY
Office of Environment, Health & Safety
University of California, Berkeley
317 University Hall, # 1150
Berkeley, CA 94720-1150

http://www.ehs.berkeley.edu
(510) 642-3073

Hazardous Equipment

Identify hazardous equipment that should be turned off after power fails because it might cause injury when restarted after power returns. Unless there has been an order to immediately evacuate the building, assign an employee to shut off the power to all hazardous equipment in the work area, such as shop machinery, after a power failure.

Data Backup

Back up your computer files regularly so as not to lose data when the power goes off suddenly. Use an Uninterruptible Power Supply (UPS) for critical machines such as servers.

Power Failure Emergency Contacts

Life-threatening Situations

For any life-threatening situation, including fires, earthquakes, dangerous chemical releases, or serious injuries or illnesses, evacuate the building immediately by following Building Emergency Plan procedures. Contact the UC Police Department (UCPD) and inform them of the emergency. If there are any injuries or illnesses requiring more than first aid, immediately contact UCPD to coordinate the appropriate emergency medical service.

Contact	How To Reach
UCPD (Berkeley Fire Department/ Emergency Medical Service)	Call 911 (24 hours a day)

Hazardous Materials Spills

For hazardous materials spills, evacuate and isolate the area. Then contact the Office of Environment, Health & Safety (EH&S). If there is a radioactive material release, evacuate and isolate the area. Then contact the Office of Radiation Safety (ORS). After business hours, both EH&S and ORS can be reached through the UCPD dispatch by calling the non-emergency phone number.

Contact	How To Reach
EH&S	Call 642-3073 or 642-6760 (off-hours—UCPD non-emergency number)
ORS	Call 643-8414 or 642-6760 (off-hours—UCPD non-emergency number)

Backup Power Failure

If emergency power generators fail, contact PP-CS. Repair calls will have to be prioritized based on their impact to life safety.

Contact	How To Reach
PP-CS	Call 642-1032 (24 hours a day) or Your PP-CS Zone Shop

Preparing for a Power Failure in Laboratories

Before Power Fails

- Before power fails, designate an emergency contact person for each laboratory who can be reached 24 hours a day. This person should be knowledgeable about all of the laboratory's major operations. Post the contact's name on all entrances to the laboratory and give it to your Department Safety Coordinator and your Building Coordinator. Alternate contacts should also be listed. (Call EH&S if you are not sure who your Department Safety Coordinator or your Building Coordinator is.)
- Put essential equipment on emergency power circuits. Contact your PP-CS Zone Manager or your Building Coordinator to find out what emergency power your building has available. Some buildings have permanently installed emergency back-up generators. These units usually serve critical functions such as emergency lighting. They may be able to provide additional service capacity. PP-CS manages and maintains these generators, along with a small number of portable units that may be available to keep critical operations going during power interruptions.
- Make a list of equipment that must be reset or restarted once power returns. Keep instructions for doing so in a nearby place. Equipment that operates unattended should be programmed to shut down safely during a power failure and not restart automatically when power returns.
- Make sure that all fume hoods have a physical, non-electrical indicator to show if they are running. This could be as simple as a strip of hanging tissue paper that will flutter when the fume hood is running.
- Identify an emergency source of dry ice if you have items that must be kept cold. (Note: Refrigerators and freezers will maintain their temperature for several hours if they are not opened. **Do not use dry ice in walk-in refrigerators or other confined areas** because hazardous concentrations of carbon dioxide gas will accumulate.)

While the Power Is Off

- Shut down experiments that involve hazardous material or equipment which automatically restarts when power is available.
- Make sure that experiments are stable and do not create uncontrolled hazards such as dangerous vapors in a non-functioning fume hood.
- Check fume hoods. Stop any operations that may be emitting hazardous vapors. Cap all chemical containers that are safe to cap, and then close the fume hood sashes. Leave the room and contact EH&S if you notice any odors or physical symptoms.
- Check equipment on emergency power. In some cases, it may take 20 to 30 seconds for the emergency power to activate after a power failure. Do not connect additional items to emergency outlets during a power failure.
- Disconnect equipment that runs unattended, and turn off unnecessary lights and equipment. This will reduce the risk of power surges and other unforeseen damage or injury that could result when the power comes on unexpectedly.
- Check items stored in cold rooms and refrigerators. You may need to transfer vulnerable items to equipment served by emergency power.

When the Power Returns

- Reset/restart/check equipment. In particular, check that the air flow of your fume hood has been restored.
- In many cases, fume hoods will not automatically restart. Keep the fume hood sash closed. Then contact PP-CS for a manual restart.
- If a refrigerator or freezer fails, keep the door closed until it has been repaired and returns to a safe working temperature. Some refrigerators and freezers require a manual restart as well. Inform EH&S of any chemicals kept in failed fume hoods, refrigerators, or freezers.
- Contact ORS for radioactive materials stored in failed fume hoods, refrigerators, or freezers.

Contact	How To Reach
EH&S	Call 642-3073 642-6760 (off-hours—UCPD non-emergency number)
ORS	Call 643-8414 or 642-6760 (off-hours—UCPD non-emergency number)

Other Emergency Planning Tips

Planning makes any emergency easier to handle. Take this opportunity to review your laboratory and building emergency procedures before a power failure strikes. In particular, your Building Emergency Plan will provide building-specific emergency response and evacuation information. Contact your Building Coordinator for a copy of the Building Emergency Plan. Call the Office of Emergency Preparedness at 642-9036 if you don't know who your Building Coordinator is.