# EHS Guidance Preparing for and Surviving a Power Outage

### **Services Affected**

When the campus loses electrical power, whether it is a single building, a part of campus, or the entire campus, many services of a building may be lost. This can include:

- lighting
- electrical outlets (and the equipment plugged into them)
- telephones
- ventilation, heating and cooling
- fume hoods and biological safety cabinets
- freezers and refrigerators
- steam
- computer, internet and ITS systems
- sewage systems
- electronic locks
- elevators

#### **Duration**

The duration of a power outage may not be known for up to an hour as Facilities personnel investigate what caused the outage and how long the repairs may take. As soon as this has been determined, the information will be communicated to the university (see Communications section for more information). Please be patient and allow Facilities personnel time to assess the situation and make necessary repairs.

## **Impacts and Planning**

Electrical power may be lost for a few minutes to a few days. It is important for building occupants to be aware of these possibilities, plan for the short term and long term impacts a power outage will have on their activities, and to safely evacuate buildings when required. These procedures must be included in Unit Emergency Management Plans.

A power outage can impact the occupancy of a building, classes being held, campus events, the operations of an office, scientific research being conducted, food services, operation of the Steam Plant (for providing heating and cooling to the campus), telephone services, and connection to the internet and the university's ITS systems.

Unit administrators need to ensure that procedures for how a power outage will be addressed are included in their Unit Emergency Management Plan. These plans should include procedures for evacuation,

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personnel relocation, back-up of data systems and availability of data back-up at an off-campus location, and communication with unit personnel after evacuation.

Researchers must be aware that a power outage will result in loss of fume hoods and biological safety cabinets. Personnel must immediately evacuate a building when these conditions occur. If it is safe to do so, containers may be capped, valves closed, operations stopped, etc., if this will reduce the potential hazards of your research during a power outage. However, if it is not safe do so, do not endanger yourself; evacuate immediately. If there are situations that may become imminent or serious hazards, please communicate this information to your unit administrator, unit evacuation coordinator, first responder, Environmental Health and Safety, and/or Facilities.

#### **Communications**

When power is lost, several forms of communications may also be lost. Computers, and consequently electronic mail and the internet, may not work or be available. Campus wireless systems and cordless phones may not operate. VOIP telephone lines may or may not operate if power is lost to the campus. Depending on how widespread the power outage is, cell phones may or may not work. Units must develop procedures on how they will communicate with their personnel during these situations.

The university's emergency notification system will provide periodic updates of the situation. Notification is sent via several modes, including electronic mail, internet, phones, and cell phones. Again, if the power outage is widespread, the emergency notification system may not be functional.

## **Evacuation of Buildings**

Many campus buildings have emergency power systems in anticipation of a power outage. These systems consist of emergency generators or battery-powered devices and they typically power emergency lighting and exit lights. In some buildings, certain electrical outlets are on the emergency power system and were installed to provide power to devices such as ultra-cold freezers. Except in rare, isolated areas, emergency power does not operate fume hoods, biological safety cabinets or building ventilation systems. Buildings using and/or storing hazardous materials can present a serious health hazard if power is lost and the ventilation systems fail.

The buildings below have been color-coded based on their use of hazardous materials and their emergency power systems:

- Red indicates this building uses hazardous materials and loss of power can present a serious health hazard. Occupants must evacuate these buildings immediately.
- ❖ Yellow indicates that hazardous materials are not used significantly in this building and the building has battery-powered emergency lighting. Immediate evacuation is not critical but must occur within 30 minutes as the batteries powering the lighting will wear down.
- ❖ Green indicates that hazardous materials are not used significantly in this building and the building has an emergency generator supplying emergency power. It may be acceptable to continue to occupy these buildings for several hours. Be aware that ventilation systems in these buildings will not be operable and, over time, the building may become colder or warmer and/or air quality will start to degrade. At this point evacuation may become necessary.

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Unit Emergency Management Plans must state the evacuation procedures required based on the information provided in the following tables. Depending on the duration of the outage and the weather, it may be acceptable to remain outside or it may be necessary to re-locate to a green color-coded building or other location approved by the unit administrator.

Buildings on this list have been identified as using and/or storing hazardous materials that can present a safety hazard if electrical power is lost.

- Occupants must evacuate these building immediately during a power outage.
- Fume hoods, biological safety cabinets, and ventilation systems will not work.
- Facilities personnel will assist in locking and signing the exterior doors of the building.
- It is the unit administrator's responsibility to ensure everyone evacuates the building and that personnel do not re-enter the building until allowed to do so.
- After power has been re-established to the building, occupants are to wait 30 minutes before entering the building to allow the ventilation systems time to clear the building of any possible hazardous fumes, vapors or gases.

Agricultural Biotechnology Building (422)

Agricultural Sciences Building (025)

Buchanan Engineering Laboratory (BEL) (054)

Chemical Storage - Facilities

College of Natural Resources (CNR) (055)

Engineering Annex (049)

Engineering/Physics Building (111)

Food Research Center (005)

Gauss-Johnson Engineering Building (423)

Gibb Hall (009)

Hazardous Materials Storage Building (125)

Holm Research Center (033)

Integrated Research and Innovation Center (IRIC) (770)

J.W. Martin Laboratory (035)

Life Sciences South (LSS) (019)

McClure Hall (110)

Mines Building (038)

Pesticide Storage Building (132)

Radiation Storage Building (681)

Renfrew Hall (047)

Buildings on this list have been identified as not using and/or storing significant amounts of hazardous materials and have battery-powered emergency lighting.

- Evacuation must take place within 30 minutes as the batteries powering the lighting will wear down.
- For single story buildings, if it is daylight, and the space has a window(s) and adequate ventilation can be maintained, it may be acceptable to continue to occupy the space.

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Agricultural Extension & Education Building (147)
Aquaculture Institute (081)
Aquaculture Wet Lab (063)
Art & Architecture Building (016)
Art & Architecture East (421)
Art & Architecture - Interior Design (106)
Art & Architecture North (003)
Art & Architecture South (022)
Blake House (034)
Bookstore/Post Office (275)
CLASS Annex (044)
College of Education (835)
Early Childhood Center (094)
Environmental Health & Safety (061)
Facilities – Campus Storage #1 (695)
Facilities – Garage (404)
Facilities – Housing Storage (694)
Facilities – Recycling/Surplus (420)
Facilities – Small Engine Shop (405)
Facilities – Storage (691)
Facilities – University Events/Bookstore Storage (693)
Forney Hall (Continuing Education Building) (007)
Graduate Art Studio (GAS House) (006)
Golf Clubhouse (100)
Greenhouse (Sixth Street) (099)
Hartung Theatre (065)
Hays Hall (Alumni Center) (010)
Human Resources (060)
Janssen Engineering Building (028)
Lionel Hampton School of Music (026)
Menard Law Building (014)
Morrill Hall (017)
Native American/Migrant Education Center (104)
Niccolls Home Economics Building (030)
Physical Education Building (PEB) (056)
Radio – TV Center (036)
Ridenbaugh Hall (018)
Shoup Hall (041)
South Hill Community Center (062)
Student Health Center (012)
Swimming Center (053)
Targhee Hall (042)
Track Storage and Restrooms (115)
University Advancement Annex (Office of Development) (048)
Vehicle Research Lab (403)
WWAMI Medical Education Building (093)

Buildings on this list have been identified as not using and/or storing significant amounts of hazardous materials and have emergency generators supplying emergency power. People may continue to occupy these buildings. Be aware that ventilation systems in these buildings will not be operable and, over time, the building may become colder or warmer and/or air quality will start to degrade. Please note buildings for which the basement restrooms must not be used. NG - natural gas-fired generator, D - diesel-fired generator Administration Building (001) ASUI-Kibbie Activity Center (114) No assembly events while on emergency power Brink Hall (021) Bruce M. Pitman Center (020) Must not use basement restrooms Facilities Services (689) J.A. Albertson Building (424) Must not use basement restrooms ICCU Arena (840) No assembly events while on emergency power ISUB (097) Library (032) Living and Learning Community - All Buildings (542-549) McConnell Hall (039) Must not use basement restrooms No assembly events while on emergency power Memorial Gym (015) Phinney Hall (004) Steam Plant (University Energy Plant) (011) Student Recreation Center (143) Teaching and Learning Center (678) Theophilus Tower (052) Must not use basement restrooms Wallace Residence Center (550-554) Must not use basement restrooms

#### **Facilities Located Outside of Moscow**

University facilities located outside of Moscow will need to determine their procedures in the event of a power outage. Environmental Health and Safety may be contacted for assistance in determining the appropriate procedures needed for your facility.

## For Losses Arising From a Power Outage

If you experience damage to equipment or facilities that you feel is related to the power outage, please submit a property claim to University of Idaho Risk Management.

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