

5.0 GUIDANCE FOR BUILDING OCCUPANTS FOLLOWING A POWER FAILURE AFFECTING A UNIVERSITY BUILDING

This document is general guidance and should not replace dynamic decision making. Schools and sections may occupy laboratories or workshops where local plans will be required for the evacuation and reoccupation of these areas to mitigate health and safety concerns.

Following a power failure affecting a University building, emergency lighting powered from batteries will switch on automatically. Its purpose is to illuminate exit routes from the building. It is not there to enable building occupants to remain in the building and continue working.

To report an outage, please contact the Estates helpdesk on 3333 during working hours; outside of working hours, please phone the Security Control Room on 3939. Estates will lead on the incident and follow their Power Failure Procedure.

ACTION TO BE TAKEN BY BUILDING OCCUPANTS

No	Task
5.1	<p>IF THERE IS A POWER FAILURE DURING HOURS OF DARKNESS</p> <ol style="list-style-type: none"> 1. Building occupants should immediately leave their areas of work and gather in main entrance foyers to await further communication. 2. On no account should anyone use naked lights (matches, lighters, etc.) to find their way out. It is strongly recommended to allow eyesight to become adjusted to the loss of light, after which it will be easier to move slowly around the building. 3. Before leaving the area, occupants should disconnect from the electricity supply any equipment which was in use prior to the power failure.
5.2	<p>IF THERE IS A POWER FAILURE DURING DAYLIGHT HOURS</p> <ol style="list-style-type: none"> 1. If the power has not been restored within 5 minutes, building occupants should vacate any parts of the building which are not illuminated either by emergency lighting or by natural daylight. Laboratories or workshops where hazardous work is undertaken should be safely shut down and vacated (see laboratory and workshop guidance below). Occupants should gather in main entrance foyers and await further communication. 2. Unless instructed otherwise, if power is not restored within 30 minutes, building occupants should vacate <ul style="list-style-type: none"> • any parts of the building which are illuminated by emergency lighting only (i.e. where there is no illumination from natural daylight) and • any parts of the building where the exit routes are illuminated only with emergency lighting (i.e. corridors and stairwells without windows). 3. Before leaving the area, occupants should disconnect from the electricity supply any equipment which was in use prior to the power failure. Building occupants should gather in main entrance foyers and await further communication. 4. Unless instructed otherwise, building occupants may (if they wish) remain in rooms that are illuminated by natural light and that are served by exit routes that are also illuminated by natural light until such time that daylight begins to fade or a building closure plan is activated (whichever is first). 5. If power is not restored to a building within approximately 3 hours, staff, students and visitors will be advised: <ul style="list-style-type: none"> • Of alternative safe locations where they can go to work or seek refreshment, if available • Whether a building closure plan will be activated, and; • How this will be communicated and implemented. <p>The ability to quickly move occupants to a safe location will depend upon the scale of the outage. In the event of a local power outage (not a site-wide outage), it will be easier to more quickly advise occupants of alternative safe locations where they can go.</p>

5.3	<p>EVACUATION ASSISTANCE</p> <ol style="list-style-type: none"> 1. Disabled individuals requiring assistance evacuating should follow their Personal Emergency Evacuation Plan (PEEP), or if they do not have a Plan, they should go to the nearest stairwell to seek assistance. If you are in a quiet area with little foot-traffic, please contact Security Control on 01224 273939 or by pressing the emergency button in SafeZone. 2. Fire Marshalls will be called upon to support the evacuation process and assist in relaying communications to occupants. Anyone who comes across someone requiring assistance should seek to offer support if possible or notify a Fire Marshall. 3. Building Fire Evacuation Plans include a note of staff who have been trained to use evacuation chairs and lifts and should be contacted for support.
5.4	<p>LIFTS</p> <ol style="list-style-type: none"> 1. Estates staff will check lifts to ensure that no-one is trapped. 2. Anyone who may be trapped in lifts should use the lift telephone or alarm to alert Security Control. Building users who find themselves in this situation should sit on the floor of the lift car (if possible) and wait as help will be on the way.
5.5	<p>SAFE RETURN INTO AREAS AFFECTED</p> <ol style="list-style-type: none"> 1. Access to areas directly affected by the incident may remain restricted until all necessary investigations; reporting and reinstatement are carried out, and the decision to close a building will be taken by the Incident Manager or Head of the Emergency Management Team, in conjunction with the area affected. Only when the Incident Manager or Head of the Emergency Management Team, in consultation with SSE, has advised when the incident is closed, or areas are declared safe, will restrictions be lifted and normal service resumed. 2. Occupants will be notified when they are allowed to re-enter the building. 3. It is the responsibility of Schools/Sections for considering whether any specialist areas, like laboratories, are safe to reoccupy, and for identifying items of equipment which might create health and safety risks if restarted when power is restored. Schools/Sections should seek assistance and support from Health & Safety or Estates if needed.

GUIDANCE FOR POWER FAILURES IN LABORATORIES AND WORKSHOPS

No	Task
5.6	<p>ADVANCE PREPARATION FOR POWER INTERRUPTIONS</p> <ol style="list-style-type: none"> 1. Make a list of equipment that must be reset or restarted in a specific manner, to protect the equipment or operators, once power returns and retain this in a safe place, close to the equipment. 2. If there are valuable samples or data stored under specific conditions, e.g. -80°C freezers, then consider what emergency requirements you may have to put in place to maintain these samples. This may include uninterruptible power supplies (UPS) or emergency generators. 3. It is worthwhile, as part of your business continuity planning, to identify the maximum length of time that fridges and freezers can remain without power to identify an acceptable length of time that power can be off for before samples need to be relocated to another location. 4. Plan the safe reoccupation taking into account the type of activities and the possible scenarios (e.g. noxious fumes, failure of fume cupboards to restart).

5.7	<p>WHILE THE POWER IS OUT</p> <ol style="list-style-type: none"> 1. If safe to do so, shut down machinery or experiments that involve hazardous materials or equipment which automatically restarts when power resumes. This will reduce risk of power surges and other potential damage that could result when the power comes back on and re-energises equipment, machinery, etc. 2. If it is safe to do so, make sure experiments are stable and do not create uncontrollable hazards such as dangerous vapours in fume hoods 3. Check all fume hoods and, if safe to do so, stop any experiments that may emit hazardous vapours. Close all chemical containers that are safe to close and then close fume hood sashes. This will help to contain any fumes and warmer air in the hood may cause a chimney effect and assist extraction of contaminated air. If the potential for fumes to escape to surroundings is considered a strong possibility or the chemicals are particularly hazardous, then evacuation of the room may be required. 4. Fridges and freezers will maintain their temperature for several hours if doors remain closed. Do not use dry ice in walk-in fridges or other confined areas due to the production of carbon dioxide which will displace oxygen. 5. If the power has not been restored within 5 minutes, vacate the area and gather in main entrance foyers and await further communication. In hours of daylight where there is ample natural light, it is safe to continue non-hazardous work inside the building until daylight begins to fade or until such time that a building closure plan is being implemented (whichever is first), provided exit routes are also illuminated by natural light.
5.8	<p>RE-OCCUPYING THE BUILDING</p> <ol style="list-style-type: none"> 1. If experiments were being run prior to the power failure, it is recommended that laboratories remain unoccupied for at least 30 minutes after mechanical extraction systems have resumed functioning. Schools should have a system in place to ensure there is an extended period of normal mechanical ventilation 2. Check that all fume hoods have restarted by confirming that the airflow monitor is recording suitable extraction. If any hoods do not have flow, then keep sash closed and report to Estates to reset the system. 3. Check all mechanical ventilation is working properly by listening or feeling for draughts / air at ventilation grilles. 4. Ensure that doors to cold rooms, fridges and freezers are kept closed until they return to their safe working temperature. 5. Ensure that all equipment is returned to a safe operational status following power supply resuming

AVAILABILITY OF EMERGENCY SUPPORT SERVICES IN A POWER OUTAGE

5.9	<ol style="list-style-type: none"> 1. Fire alarm systems Fire alarm systems are fitted with backup batteries which will enable the fire detection and alarm systems to continue to operate for between 24 -36 hours in a power cut. Although fire alarms will operate as described, the automatic signal to the Security Control Room will fail immediately; it is essential that a phone call to the Control Room (3939) is made to ensure that the Fire Service is phoned. 2. Emergency Lighting Systems Emergency lighting is installed and designed for the evacuation of buildings, not for prolonged habitation. The lighting is tested in accordance with British Standards undergoing monthly operational tests, quarterly tests of durability and annually to full discharge. Emergency lighting will operate for up to 3 hours. If you are aware that Emergency lighting is not operating properly, please report this to Estates immediately.
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5.9	<ol style="list-style-type: none"><li data-bbox="331 212 1447 470">3. Swipe Card Mechanisms Some buildings with swipe access have battery-backup. Such buildings will continue to function as normal for approximately 1-2 hours. Where battery backup is not in place, external doors will automatically lock, with internal doors open (with some exceptions for security reasons). Occupants will be able to leave the building, but where doors automatically lock, they will not be able to enter or re-enter the building unless a manual override system has been put in place. You should familiarise yourself with the arrangements in place in your building.<li data-bbox="331 488 1447 683">4. Lifts in buildings Lifts in buildings will not operate in a power cut, unless the lift has been fitted with an alternative power supply from another source or building which is unaffected by the power cut. The alarm calling system in lifts is linked to the telephone lines. Telephones should normally remain operational during power failures through backup Uninterruptible Power Supplies (UPS) and diesel generators at the Data Centre.<li data-bbox="331 701 1447 869">5. Water supplies During a power outage (either localised or site wide) hot and cold water supplies to toilets, sinks, laboratory equipment etc. may be affected, although, in general, drinking water will still be available. Where a power outage is localised to a particular building or group of buildings, staff should be directed to facilities in adjacent buildings.<li data-bbox="331 887 1447 1081">6. University telephone system Telephones should normally remain operational during power failures through backup Uninterruptible Power Supplies (UPS) and diesel generators at the Data Centre. Mobile phones should be used to ring the Security Control Room in the event of an emergency developing requiring assistance, or by pressing the emergency button in the SafeZone app. The Security Control Room will remain functional on x3939.<li data-bbox="331 1099 1447 1238">7. Electrical and electronic equipment Electrical equipment will stop operating when power is lost, unless generator or battery backup power arrangements are in place. Fridges and freezers will stay cold longer if doors are not opened.<li data-bbox="331 1256 1447 1361">8. Computer data Electronic information that has not been saved may be lost as a result of a power cut. Laptops and PCs with battery back-up will be unaffected in the short term.
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