

Water Cut Safety

This document sets out the procedures implemented in CLS to ensure personnel are not subject to additional risk or asked to work without basic welfare facilities in the event of the water supply being interrupted.

A number of systems/facilities in CLS are supplied directly from the water mains - see Appendix 1 - but most are supplied from storage tanks contained within the buildings. In the event of a mains water cut these storage tanks will continue to supply water for approximately 2 hours. Therefore, two scenarios must be considered: loss of mains water only and loss of mains and tank water.

Note: in the event of total water supply loss, work must cease immediately in areas where hand-washing sinks, safety showers or eye washes may be required, i.e. any area where hazardous substances are in use. Also, given that basic welfare facilities, e.g. functioning toilets, will be unavailable, personnel will not be required to remain at work and will only be expected to return to work once the water supply has been fully reinstated.

In the event of planned work on the water mains, University Estates & Buildings (E&B) will give adequate notice, thereby allowing personnel to be informed and equipment relying on mains water - see Appendix 1 for current list - to be powered down. However, if, for example, an emergency repair has to be carried out, the water supply may be shut off without prior warning. In light of this, if an item of equipment requires a continuous mains water supply for its safe operation there must be a mechanism or procedure in place to prevent damage to equipment and/or harm to personnel in the event of a mains water cut. This responsibility lies with the person responsible for the item of equipment. The preferred option is to have the equipment configured to detect a drop in water pressure and automatically shut down and set off an alarm. In many cases this is a standard feature. If the equipment does not come with this feature the possibility of having a pressure sensor and alarm connected to the water line should be discussed with E&B. Note: if the equipment has to be left running unattended for a prolonged period, e.g. overnight, the alarm should be linked to an auto-dialler, as per the -80 freezer alarm system, to ensure a response at all times.

During normal working hours, E&B will inform CLS Reception as soon as they become aware of a mains water cut. Reception will then inform all CLS personnel of the situation via email and telephone the Lab Managers to make sure the message is received as soon as possible. This should give personnel adequate time to prepare for total water supply loss. Outwith normal working hours, E&B or University Security will alert one of the CLS Emergency Contacts as soon as possible and within the two hour window. When the CLS Emergency Contact arrives on site they must:

- check the status of systems/facilities with critical water supplies (see Appendix 1) and, if necessary, call out the Emergency Contacts for the affected systems/facilities;
- check each building, with the help of University Security, and inform any personnel on site of the possibility of total water supply loss;
- email all CLS personnel to inform them of the situation;
- post signs at each building Reception giving details of the time the mains water cut occurred and the predicted time of total water supply loss, and instructing the Receptionists to inform the Lab Managers and other key personnel of the situation upon their arrival at work.

E&B will inform the Emergency Contact and/or the Receptionists of any change in status in order for them to relay the information as required. Reinstatement of the supply will be communicated to all personnel via email and the Lab Managers will be telephoned.

Appendix 1

Systems/Facilities Supplied Directly from the Water Mains

- Kitchen sinks, including those in the Garland Café
- Drinking water fountains
- Millipore systems in MSI
- X-ray Crystallography Facility
- FACS laser cooling system;
- DSTT 60l fermenter;
- WBRU Aquatics Facility.

Systems/Facilities with Critical Water Supplies

- Tank fed
 - All safety showers (including the two showers off the WTB atrium on levels 2 and M), eyewash showers and hand-washing sinks. Critical only if work is in progress.
 - Rotary evaporators in rooms 1L2-240, 1L2-244 & 1L4-22, Floor 1, JBC and in room 2.30, Floor 2, MSI. Critical only if rotary evaporators are in use.
 - Automatic drinking water system in the Barrier Unit, JBC, North, Floor 4. Always critical.
- Mains fed
 - X-Ray Crystallography Facility, room 1.05A, Floor 1, MSI/WTB Link Block. Critical only if equipment is running.
 - FACS Facility, room 1.05H, Floor 1, MSI/WTB Link Block. Critical only if equipment is running.
 - 60 litre fermenter, room 1L2-09G, DSTT, Floor 1, MSI. Critical only if equipment is running.
 - WBRU Aquatics Facility, room ?, Floor G, JBC. Critical only when tank water is being renewed.