BBC Studioworks

WORKING IN THE UNDERCROFT

Health & Safety Arrangements

Table of Contents

1 Introduction

The majority of the Lower Ground floor in Studioworks at Television Centre has a service space beneath it known as the 'Undercroft'. This space is approximately 1.2m tall and mainly consists of ventilation and public health services ducts 2m wide or wide-open spaces with pillars. All surfaces in the Undercroft are concrete or brick. Access to the Undercroft is either horizontally through plant rooms, or down through manholes in the LG. There are no electrical services.

The Undercroft is enclosed on all sides, it is therefore defined in the Confined Space Regulations as an 'Enclosed Workplace'. The Confined Space Regulations defines a 'Confined Space' as being an Enclosed Workplace with one or more of the 'Specified Risks'. The regulations state "Not all enclosed workplaces are subject to the Regulations; an enclosed workplace without a 'specified risk' is not a confined space that is subject to the Regulations even where there are other risks due to the size or difficulty of working in it. "

The 'Specified Risks' are defined as:
(a) serious injury to any person at work arising from a fire or explosion;
(b) without prejudice to paragraph (a) — (i) the loss of consciousness of any person at work arising from an increase in body temperature;
(ii) the loss of consciousness or asphyxiation of any person at work arising from gas, fume, vapour or the lack of oxygen;
(c) the drowning of any person at work arising from an increase in the level of liquid; or
(d) the asphyxiation of any person at work arising from a free flowing solid or the inability to reach a respirable environment due to entrapment by a free flowing solid"

None of the Specified Risks are foreseeable risks in the Undercroft, therefore the Undercroft is an Enclosed Workplace (and requires a suitable Risk Assessment and Safe System of Work) but is not a 'Confined Space' as defined by the regulations.

The regulations go on to state that the status of an Enclosed Workplace may change:
"The status of a space can change depending on circumstances as can the risks, for example heavy rain may present a foreseeable risk of drowning in a space not usually considered confined. The space may be defined as a confined space because of the work being carried out in it, and may cease to be a confined space when the 'specified risk' is removed "

NB *These arrangements only apply to the Undercroft as an 'Enclosed Space'. If any of the 'Specified Risks' are foreseeable, then the Undercroft should be considered a 'Confined Space' and a separate risk assessment carried out before entry.*

2 Management Arrangements

2.1 Permit to Work

Before anyone is allowed to access the Undercroft they must have been given a Permit to Work by the Facilities Office or be on a pre-authorised list and working to the Standing Instruction below.

2.2 Authorisation

The Facilities Office will hold a list of staff authorised to work in (or supervise others working in) the Undercroft using the following Safe System of Work.

- Anybody accessing the undercroft must have taken Confined Space awareness training to be authorised.
- This Safe System of Work only covers entry to and movement within the Undercroft.
- Anyone carrying out tasks in the Undercroft must have their own risk assessment.

2.3 Accessibility

Fitness: Access into the Undercroft is via ventilation ducts or manholes – this means a crawl or a climb down. Whilst in the Undercroft it is not possible to stand up, so to navigate you must walk stooped, crawl or use a skate. These hazards mean that anyone entering must be physically fit to do so. Any problems with the back, neck, joints etc should be considered. If in any doubt, stay out.

PPE: Access through ductwork will mean crawling and some portions of the Undercroft will require crawling under or over services. Appropriate PPE should be worn. If working in the Undercroft for any significant duration, then knee pads and gloves are recommended.

Manholes: Manholes must barriered off before being lifted. The appropriate number of people should be used to lift the manhole cover. If steps are not built in; a suitable ladder should be used.

Movement within Undercroft: If working in the Undercroft for any significant period, then the use of a skate for movement should be considered.

2.4 Confined Space Lock-out System

Access to the Undercroft is gained either via a plant room or a manhole. To avoid plant room doors being padlocked shut from the outside or manholes being accidentally replaced the following confined space lock-out system must be followed.

A station installed in the Facilities Office contains padlocks and tags which serves 4 purposes;

- provide a padlock for lock-out
- provide an identifier tag for the Radio Buddy
- provide a clear visual indication that the Undercroft is occupied
- identify who the worker in the Undercroft is

Before entry to the Undercroft, the following system should be followed:

1. Take a lock-out padlock from the hook
2. Place on the hook a tag with your name and contact number on it
3. Take a 'Radio Buddy' tag and hang it on the aerial of your radio contact on the surface
4. Snap the lock onto the staple of the open plant room door / onto the handle of the manhole lifter.
5. Keep the (unique) key for this padlock on your person whilst in the Undercroft

After work has finished in the Undercroft, the following system should be followed:

1. Ensure that ALL workers are out of the Undercroft
2. Remove the lock-out padlock
3. Secure the Undercroft entrance (lock plant room door / replace manhole)
4. Remove your name tag from hook
5. Return the padlock to its hook and the 'Radio Buddy' tag to its hook

All access doors / hatches within the Undercroft should be free from any one-sided lock. If any doors are found to have a lock which can only be unlocked from one side, this should be reported to the Facilities Office to be changed immediately.

If it is necessary to crawl through any sections of ductwork that has a single fire damper – this damper should be mechanically locked off (propped open) before entering to prevent being locked in if the damper fuse is knocked, closing the damper. If there are multiple dampers in parallel, then this is not necessary.

2.5 Obstructions

Water and air services are mounted on the ceiling, these and their hangers present a risk for hitting your head. Where ever practicable, excess length on unistrut hanging studs should be chopped off and the ends of the studs capped. Studs that remain long should be reported to the Facilities Office. The use of PPE should be considered, taking into account the loss of vision that any head protection causes. Crawling under or over services may be necessary – the use of knee pads and gloves is recommended.

2.6 Manual Handling

It is not possible to stand upright in the Undercroft, which means that many standard manual handling techniques will not be possible. A stooped position greatly reduces the safe lifting weight. The use of lightweight tools and materials should be considered. Aids for transporting and lifting should be considered bearing in mind the environment. Trollies / skates can be used to transport most tools / equipment.

2.7 Lighting

There is no lighting in the Undercroft. Lighting appropriate for the job must be used; this could be a headtorch for a single visit, or for longer jobs battery lighting or 110v site lighting. There must be a plan in place for lighting failure. If using multiple battery lights, there might be enough spill from the next light along to be able to safely navigate past the dark spot, if not, follow the procedure for mains lighting. If using mains lighting or a head torch – they have a single point of failure, therefore a second source of light should be kept on the body – a small pocket torch, or reliable phone torch will be enough to navigate out of the Undercroft.

2.8 Plant

All mechanical plant serving ducts in the area of Undercroft being accessed should be isolated and locked off before entering to prevent excess heating / cooling of the environment. If the plant has been running shortly before entering, it should be checked that the temperature is suitable for the work – if not, the area should be left to heat up / cool down before work starts.

2.9 Gas

The air in the Undercroft has been tested for levels of O2, CO, H2S and LEL, all of which are within limits. A gas monitor should be worn when working in any area where the ventilation is not guaranteed in case a new unknown risk changes the environment. If the gas monitor detects levels outside limits, then the area should be vacated immediately and a risk assessment carried out before the area is entered again.

2.10 Asbestos

Some asbestos remains in the Undercroft and, where inspected and identified, has been made safe through encapsulation with regular inspections as per the Television Centre Asbestos Management Plan. Areas in the Undercroft that are not easily accessible may still have unremediated asbestos therefore the Asbestos Register must be consulted before entering any restricted areas or carrying out any works.

2.11 Lone Working

Because the Undercroft is a particularly isolated part of the building, any work in the Undercroft should be considered as Lone Working (even if more than one person is working in the area). A robust system of communication and monitoring to outside the Undercroft should be used. The Studioworks Motorolas work site wide, and are therefore a reliable form of communication with a contact outside the Undercroft. The supervisor in the Undercroft should carry a radio. Before going into the Undercroft the supervisor should appoint a dedicated 'Radio Buddy' contact outside the Undercroft and give them a dedicated radio – this radio should have hanging on the aerial a 'Radio Buddy' confined space tag to identify it as being used for that sole purpose. Radio communication should be checked before entering the Undercroft. Contact between worker and buddy should be made at least every 30 minutes (multiple attempts may be required if noisy work is being carried out). If radio contact is lost, mobile phone contact should be attempted. If no contact can be made, then the emergency procedure should be followed.

2.12 Emergencies

The risk assessment that covers the tasks planned to be undertaken should consider a suitable emergency plan. If an emergency were to occur; in the first instance the worker should make the Radio Buddy aware – they can then raise the appropriate help if necessary. The casualty should make their own way to the Undercroft exit and normal Studioworks emergency procedures should be followed. If the casualty is unable to get themselves out of the Undercroft, then the radio buddy should inform Security of the casualty's location. If there is any reason to doubt the safety of entering the Undercroft, then no-one should do so. If there is no reason to believe a new risk exists in the Undercroft, then either the Radio Buddy or Security (as appropriate) can enter the Undercroft to give first-aid. They should only enter following the Safe System of Work above – if this safe system cannot be followed, they should not enter. If the emergency services are required to attend, then Security should direct the service to the casualty.