

ECD-HS-PR-002-0211

(Reviewed January 2018)

Confined Spaces Policy.

CONFINED Space Definition;

A **confined space** also has limited or restricted means for entry or exit and is not designed for continuous occupancy. **Confined spaces** include, but are not limited to, tanks, vessels, silos, storage bins, hoppers, vaults, pits, manholes, tunnels, equipment housings, ductwork, pipelines, etc.

Guidance - Definition

This documents define acceptable practices and/or instructions.
Compliance with this Guidance document is not mandatory, however is encouraged.
Any deviation from this document is to be agreed with the document author.

Date: January 2018

Review: January 2019

Forward:

This document and associated appendix has been developed by Aston University Estates & Capital Developments to be used in conjunction with their **Safety Code of Practice for Contractors**. This can be found at; <http://www.aston.ac.uk/about/estates/policies/>

The aim of the document and its appendix is to control the potential risks to Health, Safety and Welfare that could ensue from accessing any Confined Space on the Campus or in any Building

This document will supplement and provide further detail to a number of sections within the Safety Code of Practice for Contractors.

| Issue Number | Date Raised | Items Changed |
|--------------|-------------|--|
| 1 | 12-02-2010 | Original Document |
| 2 | 22-12-2014 | Changes of Estates & Facilities to Estates and Capital Developments. Changes from Head 10 Breathing Apparatus to ELSA. Changes from 5Star Analyser to Altair 5X Analyser. |
| 3 | 6-11-2015 | Revised the SWP covered for ECD Staff entering a RED Zone. Replaced the SWP for RED Zone Entry with the reviewed Nov 2015 version. |
| 4 | 9/11/2016 | Revised the staff titles to reflect the ECD organisational changes Changed the Analyser name to Altair 5X Gas Test Unit. |
| 5 | 12/1/2018 | <ol style="list-style-type: none">1. Inclusion of the definition of a confined space.2. Changers to reflect the reviewed Safe Working Practices for Confined Space Entry. |

Policy Principles.

This Policy assumes that a ‘suitable and sufficient’ Risk Assessment and Method Statements are in place prior to entering the following areas.

There are two reasons to enter a confined space:-

- 1) To inspect and or operate equipment or services.
- 2) To carry out work.

Currently there is one Confined Space Control Board situated in the Estates and Capital Development Maintenance & Facilities Office Main Building Lower Ground Room L7. This is monitored by the ECD Helpdesk.

There are three types of ‘confined space’ categories at Aston University

- 1) Category **GREEN** zone
- 2) Category **AMBER** zone
- 3) Category **RED** zone

Category GREEN zone means:-

1/. An area that has a restricted access and/or egress as identified by the managers but can be subject to “**One Man Working**”.

2/. The persons who are to work in this area are to report to the above office to record the work and area etc on the Control Board before entering. It is considered that ‘One Man Working’ is ‘safe’ under normal working conditions.

3/. If the worker needs to ‘over-run’ his expected time of egress, he is to inform the ECD Helpdesk. If the time of expected egress has elapsed the ECD Helpdesk is to investigate the reason for the “no show” immediately.

4/. In case of an incident, a rescue plan is to be implemented to suit the situation.

Category AMBER zone means;-

- 1/. An area that has a restricted access and/or egress as identified by the managers is to be subject to 'Two Man Working'.
- 2/. The persons who are to work in this area are to report to the above office to record the work and area etc on the Control Board before entering. It is considered that 'Two Man Working' is 'safe' under normal working conditions.
- 3/. In case of an incident, a rescue plan is to be implemented to suit the situation.

Category RED zone means;-

- 1/. An area that has a restricted access and/or egress as identified by the managers is to be subject to a minimum 'Three Man Working' strictly utilising the Safe Working Practice - [ECD-HS-SWP-119-07-11. \(Revised December 2017\) ENTERING AND WORKING IN A CONFINED SPACE.](#) (As attached) **for directly employed staff. Contractors will be required to provide their own risk Assessment and method statement for these areas.**
- 2/. The persons who are to work in this area are to report to the above office to record the work and area etc on the Control Board before entering. It is considered that 'Three Man Working' is 'safe' under normal working conditions.
- 3/. In case of an incident, a rescue plan is to be implemented to suit the situation.

A typical RED Zone on site is;

Underground Pipe and Cable Ducts and associated Chambers; Deep Drain Chambers; Unventilated Voids; Water Tanks; Fuel Tanks; (this is not a definitive list, advice should be sought from the ECD Responsible Manager).

GREEN, AMBER and RED zones are recognised by local signage within the designated areas and on drawings.

Currently areas considered GREEN zones are:-

MB sub basement.
SW & NW sub basements.
L36 basement areas.

Currently areas considered AMBER zones are:-

MB corridor overhead ducts.
MB Pipe Ducts (between LG and Sub-basement).
MB Great Hall, Rigging Area and Roof Void
LG 77 Basement
Woodcock Sports Centre Basement.

Currently areas considered RED zones are:-

Underground Pipe and Cable Ducts and associated Chambers;
Drain Chambers;
Unventilated Voids;
Water Tanks;
Fuel Tanks;

To enable control of individuals entering confined spaces there is a 'Control Board' situated in the Estates and Capital Development Maintenance & Facilities Office Main Building Lower Ground Room L7 and all staff/contractors that need to enter the controlled areas are to be entered onto the Control Board. Items to be recorded include; date, time, place visiting & duration/time out. This is monitored by the ECD Helpdesk.

Clarification of Zone Types.

GREEN ZONE - An area where the atmosphere is not suspect and access is acceptable but the area is not normally a visited area. One man working but will be indicated on the Control Board.

AMBER ZONE - An area where the atmosphere is not usually suspect but access/egress is restricted. Two Man Working is required and to be entered on the Control Board. A rescue Plan is required for this area.

RED ZONE - An area that may have a depleted and/or an explosive atmosphere where atmosphere tests and an access 'PWT' is required and entered on the Control Board. A rescue Plan is required for this area.

The following instructions must be observed before, during and after entry into any confined space identified as:-

GREEN ZONE

1/. Any area that has a restricted access and/or egress as identified by the manager is to be subject to **One Man Working**.

2/. The persons who are to work in this area are to report to the Estates and Capital Development Maintenance & Facilities Office Main Building Lower Ground Room L7 to record the work and area etc on the Control Board before entering.

Communication devices will be agreed upon/issued at this stage.

It is considered that 'One Man Working' is 'safe' under normal working conditions.

3/. If the worker needs to over-run his expected time of egress, he is to inform the ECD Helpdesk. If the time of expected egress has elapsed the Helpdesk is to investigate the reason for the "no show" immediately.

4/. In case of an incident, a rescue plan is to be implemented to suit the situation, See appendix 1.

All entries on the 'Control Board' must be cleared as each job is completed.

The following instructions must be observed before, during and after entry into any confined space identified as:-

AMBER ZONE

1/. Any area that has a restricted access and/or egress as identified by the managers is to be subject to ‘Two Man Working’.

2/. The persons who are to work in this area are to report to the Estates and Capital Development Maintenance & Facilities Office Main Building Lower Ground Room L7 to record the work and area etc on the Control Board before entering.

Communication devices will be agreed upon/issued at this stage. In this zone Two Man Working is considered to be safe under normal operating conditions.

3/. Some areas such as the Main Building Passageway Overhead Ducts will require a PTW from the responsible ECD Manager before work can commence as the area has a fitted Fire Aspiration System.

4/. In case of an incident, a rescue plan is to be implemented to suit the situation, See appendix 1.

All entries on the ‘Control Board’ must be cleared as each job is completed.

Following are instructions that must be observed before, during and after entry into any confined space identified as:-

RED ZONE

SAFE WORKING PRACTICE. ECD-HS-SWP-119-07-11.

1/. The “Supervisor” (directly employed by Aston University) and selected by the ECD Maintenance Officer is to be in charge. The **Supervisor** is to gather together A total of three man entry team, all confined space entry equipment and check the condition and operation of all items including test meters and monitors. This equipment will be stored in the Fitters Workshop and Maintenance Officers office when not in use. This equipment is to be checked and tested regularly as part of the PPM. A list of all equipment is to be kept for checking against.

Contractors utilising this Policy will provide their own risk assessment, method statement and air monitoring and access equipment along with ‘evidence of tests/maintenance’ as required including lighting if necessary.

2/. There will be a minimum of three staff present to set up, test and enter the confined space. One of which should be a Supervisor All are to be trained in confined space entry. A maximum of two are to enter with a” **Surface Safety Person**” at the entrance. They are to remain in contact with each other at all times. A **“Permit-to-work form”** is to be used in the preparation for entry to the area. This is to be filled in by the Supervisor.

3/. Open access to the space and the Supervisor is to sample the atmosphere using **Multi Gas Test Unit**. - The area is to be sampled at regular levels when descending into a below ground area and every few feet when accessing from the side. Results of the samples are to be recorded on the permit-to-work form. When first entering to test the atmosphere, the first worker to enter is to be wearing a full body harness attached to a safety line on the tripod system. He must be carrying his “ELSA set” and be wearing his Oxygen monitor. No other person is to enter until the recordings of the atmosphere have been assessed.

All the test readings are to be recorded on the Permit to Work

4/. At all times when inside a confined space, the workers must wear the **Personal Oxygen alarm. They are to have a “ELSA” Emergency Breathing Set, (which is to be donned immediately if the O2 monitor alarms and BOTH workers are to evacuate the area).** They are to obey any instruction to evacuate from the “**Surface Safety Person**”. **Who is in charge of the operation and he must stay in contact with the staff inside the space at all times. The Multi Gas Test Unit is to be in use with the extension pipe run from the entrance to the area where the work is taking place. This is to be monitored constantly by the “Surface Safety Person”.**

5/. Any confined space that is left open must be fully fenced off before vacating the area. When returning to the area the confined space is to be re-tested and results recorded before entry is attempted. **This is especially relevant if the area has been left overnight. - Any Permit to Work is not to be over 24hours old.**

6/. If in any doubt as to the safety of those in the confined space, the Surface Safety Person is to order the evacuation of the space. He is not under any circumstances, to enter the confined space himself but is to seek help from others. If at any time an incident occurs where a person is incapacitated, a Rescue Plan for the situation is to be implemented.

7/. At all times the workers in the confined space must wear the appropriate **PPE i.e.: hard hats, safety boots and gloves. They are to carry a torch if required.**

8/. If an explosive atmosphere is suspected when testing the confined space. **OR** alarms on the **Multi Gas Test Unit** during work operations **OR** if in doubt. **NO WORK** that can cause a spark is to be undertaken and only special non-sparking tools are to be used. A **“NO SMOKING NO NAKED LIGHTS”** sign is to be posted at the entrance. The confined space is to be ventilated until it is tested clear of explosive gasses.

9/. Once all work has been completed, the **Supervisor** is to ensure that all tools, equipment and rubbish are to be removed from the area. The confined space is to be

re-sealed and the confined space permit-to-work is to be signed off by the supervisor. All entry equipment is to be checked against the list, cleaned as required and stored back in the Fitters Workshop.

All entries on the 'Control Board' must be cleared as each job is completed.

Appendix 1

Rescue Plans

Green Amber and Red Zones

Green Zone Rescue Plan

- 1) Utilising communication devices raise the alarm with the Security Officers clearly stating your location and type of emergency.
- 2) Utilising communication devices alert your Supervisor and/or colleagues who may be able to assist with isolations etc re specialist site knowledge outside the green zone.
- 3) **Persons concerned in items 1 & 2 above will liaise to agree actions, in particular with reference to the possibility of explosive or oxygen depleted atmospheres in the rescue area.**
- 4) If safe to do so (and you are capable) remove yourself from any known hazards, i.e. rising water levels, hot pipe work or gas systems discharge, electrical hazards.
- 5) Await rescue party while maintaining communications in a safe position.
- 6) The Rescue may require the assistance of the Emergency Services. This is to be assessed by the senior person at the scene and the situation communicated to the Security Office as necessary

Amber Zone Rescue Plan

- 1) Utilising communication devices raise the alarm with the Security Officers clearly stating your location and type of emergency.
- 2) Utilising communication devices alert your Supervisor and/or colleagues who may be able to assist with isolations etc re specialist site knowledge outside the amber zone.
- 3) **Persons concerned in items 1 & 2 above will liaise to agree actions, in particular with reference to the possibility of explosive or oxygen depleted atmospheres in the rescue area.**
- 4) If safe to do so (and you are capable) enter *Amber Zone* to attend your colleague but do not subject yourself to any known hazards, i.e. rising water levels, hot pipe-work or gas systems discharge, electrical hazards etc.

- 5) Await rescue party while maintaining communications in a safe position.
- 6) The Rescue may require the assistance of the Emergency Services. This is to be assessed by the senior person at the scene and the situation communicated to the Security Office as necessary

Red Zone Rescue Plan

- 1) Utilising communication devices raise the alarm with the Security Officers clearly stating your location and type of emergency.
- 2) Utilising communication devices alert your Supervisor and/or colleagues who may be able to assist with isolations etc re specialist site knowledge outside the Red zone.
- 3) **Persons concerned in items 1 & 2 above will liaise to agree actions, in particular with reference to the possibility of explosive or oxygen depleted atmospheres in the rescue area.**
- 4) If safe to do so enter the ***Red Zone*** to assist with the rescue or await the Security Team Leader but do not subject yourself to any known hazards, i.e. rising water levels, hot pipe-work or gas systems discharge, electrical hazards etc'.
- 5) Await rescue party while maintaining communications in a safe position.
- 6) The Rescue may require the assistance of the Emergency Services. This is to be assessed by the senior person at the scene and the situation communicated to the Security Office as necessary

This Policy is to be reviewed every 12 months or when regulations and circumstances change.