CONFINED SPACES MANAGEMENT PLAN

Property & Facilities Division
November 2018
This plan has been adapted from the previous confined space management plan of April 2005.

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1 Purpose and Objectives

Confined space entry has for a long time been a workplace hazard which claims several lives each year in Australia, mainly because of a lack of understanding and education of the dangers. In all Australian states, legislation has been written which is designed to manage the inherent risks of entry and working in a confined space.

The Property and Facilities Division recognises its obligations in relation to the management of risk associated with the exposure of staff, students, contractors and visitors to hazards created by workplaces or workplace activities under its control. In accordance with the Queensland Work Health and Safety Act 2011, The University Of Queensland (UQ) aims to proactively meet its Work Health and Safety obligations through the implementation of this plan.

2 Definitions, Terms and Acronyms

**Contaminant** – any dust, fume, mist, vapour, gas or other substance in liquid or solid form, the presence of which may be harmful to health and safety.

**Competent person** is one who has acquired through training, qualification or experience, the knowledge and skills to carry out this task.

**Exposure Standard** – an airborne concentration of a particular substance in the person’s breathing zone, exposure to which, according to current knowledge, should not cause adverse health effects nor cause undue discomfort to nearly all persons. The exposure standard can be of three forms: *time weighted average (TWA)*, *short term exposure limit (STEL)* or *peak exposure limit*.

The following terms are used in calculating levels of atmospheric contaminants:

(a) **Time weighted average (TWA)** – The average airborne concentration of a particular substance when calculated over a normal 8-hour workday, for a 5-day work week.

(b) **Short term exposure limit (STEL)** A 15 minute TWA exposure which should not be exceeded at any time during a work day if the eight hour TWA average is within the TWA exposure standard. Exposure at the STEL should not be longer than 15 minutes and should not be repeated more than 4 times a day. There should be at least 60 minutes between successive exposures at the STEL.

(c) **Peak** – A maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time, which does not exceed 15 minutes.

**Flammable range** – the range of flammable gas or vapour (percentage by volume) in air in which an explosion in air can occur upon ignition. Expressed by *lower explosive limit* (ie. the concentration of contaminant in air below which the propagation of a flame does not occur on contact with an ignition source, and *upper explosive limit* (ie. the concentration of contaminant above which the propagation of a flame does not occur on contact with an ignition source.)
**Hot work** – welding, thermal or oxygen cutting, heating, and other fire producing or spark producing operations that may increase the risk of fire or explosion.

**Project Manager** at UQ includes a Construction Project Manager, a Client Faculties Manager, Energy, Engineering, Cleaning, Property, Planning, Traffic and Parking, UQ Centre

**Safe oxygen level** – a minimum oxygen content in air of 19.5 percent by volume, and a maximum oxygen content in air of 23.5 percent by volume, under normal atmospheric pressure.

**Stand-by person** – a competent person assigned to remain on the outside of, and in close proximity to, the confined space and capable of being in continuous communication with and to observe those inside, if practicable. In addition, where necessary, initiate rescue procedures, operate, and monitor equipment used to ensure safety during entry and work in the confined space.

### 3 Overview of Confined Spaces Management Plan

This document will detail the systems for identifying confined spaces and ensuring the correct precautions are taken before entry including:

- the initial risk assessment,
- selection of the required controls,
- the confined space entry permit,
- responsibilities of all staff associated with entering a confined space and
- emergency and evacuation procedures.

To help identify a confined space a flow chart from Safe Work Australia’s Confined Spaces Code of Practice dated February 2016 has been included in this document in Figure 1 below.

The bulk of the text in this document has been taken directly from the Safe Work Australia’s Confined Spaces Code of Practice dated February 2016 code of practice. Every effort has been made to reference the source.

The sections in the P&F plan taken from the Safe Work Australia’s Confined Spaces Code of Practice are also presented in the same order i.e. identify the hazards, assess the risk, control the risk and what to do in an emergency. Roles and responsibilities was added to help readers of the document determine which positions in UQ were signed responsibilities in controlling confined spaces at UQ.
Figure 1 (Safe Work Australia, 2016)

Is the space enclosed or partially enclosed?  
The risks of confined spaces are associated with how much of the space is enclosed, rather than the size of the space.

Yes

Is the space not designed or intended to be occupied by a person?  
Spaces with poor ventilation, inadequate lighting and restricted means of entry or exit are generally not designed for human occupancy. The entry or exit to the space could be restricted if the size of the opening and/or its location makes it physically difficult to get in and out of and difficult to remove an injured or unconscious person from the space.

No

Yes

Is the space designed or intended to be at normal atmospheric pressure while a person is in the space?  
Where a space is not normally at atmospheric pressure (for example a boiler) it must be brought to atmospheric pressure before a person enters the space, as part of the risk control process.

No

Yes

Is the space likely to pose a risk to health and safety from one or more of the following:
- an atmosphere that does not have a safe oxygen level (a safe oxygen level means an oxygen content in air of between 19.5% – 23.5%)
- contaminants, for example airborne gases, vapours and dusts, that may cause injury from fire or explosion
- harmful concentrations of any airborne contaminants (if the contaminants are present at a concentration above the relevant exposure standard or if they are likely to cause impairment, loss of consciousness or asphyxiation)
- engulfment, for example:
  o any liquid including oil or water in which a person can drown, or
  o any solid including fly ash, grain, sawdust and sand that can flow and form a temporary cavity or bridge, which may collapse and surround a person, cutting off their air supply.

No

Yes

Not a Confined Space

Confined Space
4 Identify the Hazards Associated with Confined Spaces

‘Identifying hazards involves finding all of the things and situations that could potentially cause harm to people. The types of substances previously stored in a confined space (however briefly) will indicate the sorts of hazards that may be present. Substances stored in a confined space may result in a lack of oxygen, airborne contaminants, or a flammable atmosphere within the confined space. Other hazards may arise from work activities, products, or by-products in or around the confined space.’ (Safe Work Australia, 2016)

4.1 Restricted entry or exit

‘Small entrances and exits make it difficult to rescue injured workers or to get equipment in or out of the confined space. In some cases, entrances and exits may be very large but their location can make them difficult to access. For example, accessing pits or openings high up in silos may require the use of ladders, hoists or other devices, and escape and rescue from such spaces may be difficult in emergencies’. (Safe Work Australia, 2016)

4.2 Harmful airborne contaminants

‘Table 1 illustrates the kinds of harmful atmospheres that may be present in a confined space, and how they may be created.’ (Safe Work Australia, 2016)

Table 1 (Safe Work Australia, 2016)

<table>
<thead>
<tr>
<th>Source</th>
<th>Examples</th>
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| Substance stored in the confined space or its by-product(s) | • build-up of hydrogen sulphide in sewers and pits  
• release of toxic substances e.g. hydrogen sulphide in tanks of decomposing organic material, especially when the material is disturbed |
| Work performed in the confined space | • use of paints, adhesives, solvents or cleaning solutions  
• welding or brazing with metals capable of producing toxic fumes  
• exhaust fumes from engines used in the confined space |
| Entry of natural contaminants e.g. groundwater and gases into the confined space from the surrounding land, soil or strata | • acid groundwater acting on limestone with the potential to produce dangerous accumulations of carbon dioxide  
• methane released from groundwater and from decay of organic matter |
| Release of airborne contaminants | • when sludge, slurry or other deposits are disturbed or when scale is removed |
| Manufacturing process | • residues left in tanks, vessels etc., or remaining on internal surfaces can evaporate into a gas or vapour |
### Source

| Entry and accumulation of gases and liquids from adjacent plant, installations, services or processes | • the contamination of underground confined spaces by substances from plant in the vicinity of the confined space  
• carbon monoxide from the exhaust of LPG-powered forklifts operating in, or in the vicinity of, the confined space.  
• carbon monoxide from the exhaust of internal combustion engine |

#### 4.3 Unsafe oxygen level

Air normally contains 21% oxygen by volume, although oxygen levels of 19.5% — 23.5% by volume are considered to be safe.

Some situations can cause the level of oxygen to dramatically decrease, leading to an oxygen-deficient atmosphere and possible asphyxiation. This may occur, for example, if oxygen in the atmosphere is:

- displaced by gases produced during biological processes, for example, methane in a sewer
- displaced during purging of a confined space with an inert gas to remove flammable or toxic fumes
- depleted inside metal tanks and vessels through surface oxidation (for example, when rust forms)
- consumed during combustion of flammable substances
- absorbed or reacts with grains, wood chips, soil or chemicals in sealed silos.

Too much oxygen can increase the risk of fire or explosion. Oxygen-enriched atmospheres may occur if:

- chemical reactions cause the production of oxygen, for example certain reactions with hydrogen peroxide
- there is a leak of oxygen from an oxygen tank or fitting while using oxy-acetylene equipment

(Safe Work Australia, 2016)

#### 4.4 Fire and explosion

A fire or explosion requires the presence of three elements: an ignition source, air and a fuel (gas, vapour or mist) capable of igniting. A flammable atmosphere is one in which the flammable gas, vapour or mist is likely to exceed 5% of its lower explosive limit (LEL).

Flammable atmospheres in confined spaces may result from the evaporation of a flammable residue, flammable materials used in the space, a chemical reaction (such as the formation of methane in sewers), or from the presence of combustible dust (such as that in flour silos).
If an ignition source, such as a sparking electrical tool or static on a person, is
introduced into a space containing a flammable atmosphere, an explosion is likely to
result.'
(Safe Work Australia , 2016)

4.5 **Engulfment**

Engulfment means to be swallowed up in or be immersed by material, which may
result in asphyxiation. Examples of materials that may pose a risk of engulfment
include plastics, sand, liquids, fertiliser, grain, coal, coal products, fly ash, animal feed
and sewage. Stored materials such as sand and grain can form a crust or bridge
when a container is emptied from below, leaving the top layer in place. Workers
walking on the bridge or working below the bridge on the floor of the container may
be engulfed if a bridge collapses (see Figure 2).
(Safe Work Australia , 2016)

**Figure 2** Example of ‘bridging’ which may result in engulfment (Safe Work Australia , 2016)

4.6 **Uncontrolled introduction of substances**

‘The uncontrolled introduction of substances such as steam, water or other liquids,
gases or solids may result in drowning, being overcome by fumes or other harm
depending on the nature of the substance.

Vehicles and LPG forklifts operating close to the opening of the confined space can
cause a build-up of exhaust gases, including carbon monoxide, in the space.’
(Safe Work Australia , 2016)

4.7 **Biological hazards**

‘Contact with micro-organisms, such as viruses, bacteria or fungi, may result in
infectious diseases, dermatitis or lung conditions such as hypersensitivity
pneumonitis. Sewers, grain silos and manure pits are examples of confined spaces where biological hazards may be present’ (Safe Work Australia, 2016)

The complete list of hazards are listed in the Safe Work Australia’s Confined Spaces Code of Practice dated February 2016.

5 **Assess the Risks**

A risk assessment involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening.

When undertaking a risk assessment to determine the risks requiring control the following factors should be considered:

- the atmosphere in the confined space, including whether testing or monitoring is to be undertaken.
- the risk of engulfment of a person.
- all proposed work activities, particularly those that may cause a change to the conditions in the confined space.
- the number of persons occupying the space.
- the identity and nature of the substances last contained in the confined space.
- the number of persons required outside the space:
  - to maintain equipment essential for the task being undertaken within the confined space,
  - to provide continuous communication with the persons within the confined space, and
  - to properly initiate emergency response procedures.
- risks associated with other hazards that could be present (e.g. noise or electricity).
- arrangements for emergency response, (e.g. first aid and resuscitation).
- the physiological and psychological demands of the task and the competency of persons involved in the tasks or emergency response duties.
- the availability and adequacy of appropriate personal protective equipment and emergency equipment for all persons likely to enter the confined space.
- the need for additional risk control measures, including:
  - prohibiting hot work in adjacent areas,
  - prohibiting smoking and naked flames within the confined space and adjacent areas, and
  - avoiding contamination of breathing air from operations or sources outside the confined space (e.g. exhaust of an internal combustion engine).
- whether purging or cleaning in the confined space is necessary
- whether hot work is necessary
- conditions that could impede entry and exit or the conduct of the tasks in the confined space, (eg. plant layout, dimensions, manual handling and ergonomic aspects of the task activity).
5.1 **Atmospheric testing and monitoring**

Testing and monitoring the atmosphere in a confined space is a routine part of determining appropriate control measures. Any air monitoring in a confined space should be carried out by a competent person using a suitable, correctly calibrated gas detector. It may be necessary to test the atmosphere for:

- oxygen content
- airborne concentration of flammable contaminants
- airborne concentration of potentially harmful contaminants (e.g., hydrogen sulphide and carbon monoxide).

A person’s senses should **never be used** to determine if the air in a confined space is safe. Many toxic or flammable gases and unsafe oxygen levels cannot be detected using one’s senses.

Initial testing should be done from outside the confined space by inserting a sample probe and/or portable gas detection device at appropriately selected access holes, nozzles and openings. Because contaminants can settle at different levels, each part of the confined space should be tested – side to side and top to bottom (see Figure 3).

For example, some gases (such as hydrogen sulfide) are heavier than air and in unventilated areas will settle to the bottom of the space, while other gases (such as methane) are lighter than air and will collect at the top of the space. Testing should be carried out on a sufficient number of points to accurately reflect areas of the space that is likely to be accessed.

*Figure 3 Atmospheric testing of remote regions and different levels within the confined space. (Safe Work Australia, 2016)*

Lighter gases may be vented into the breathing zone of the person conducting the tests. Some gases may be dissolved in liquids and released when the liquid is disturbed or a crust over the liquid is broken and it may therefore be necessary to agitate liquids before monitoring. If it is necessary to enter the space to test remote regions away from entrances or access holes, then air-supplied respiratory equipment **should be** worn and the entry
must be undertaken in accordance with the Work Health Safety (WHS) Regulations using a confined space entry permit. 
(University of Queensland, n.d.)

Re-testing and continuous monitoring of the air may be necessary if the risk assessment indicates that conditions may change due to the work being done or the disturbance of hazardous material in the confined space. 
(Safe Work Australia, 2016)

5.2 **UQ Risk Assessment**

UQ Safe - Risk is the preferred operational OHS risk management tool for conducting and performing an OHS risk assessment within the University. It is an online OHS risk management database that has been designed to assist in conducting an OHS risk assessment, managing and recording the process.

All staff and students have automatic access to the UQ Safe - Risk, which can be accessed via the Current Staff webpage: [https://staff.uq.edu.au/information-and-services/health-safety-wellbeing/health-safety-workplace/risk/assessments](https://staff.uq.edu.au/information-and-services/health-safety-wellbeing/health-safety-workplace/risk/assessments)

As detailed in the **UQ PPL 2.30.01 Occupational Health and Safety Risk Management** “supervisors and managers must:

- Ensure risk management process is undertaken and provide appropriate supervision, support and guidance for OHS risk management.
- Ensure provision and maintenance of effective OHS risk controls.
- Ensure the provision, maintenance, training and proper use of PPE.
- Consult with workers, review and approve OHS risk assessments.
- Ensure post-incident corrective actions are implemented and review OHS risk management documentation accordingly.
- Review and update OHS risk management provisions in relation to change in the work activities.” (University of Queensland, n.d.)

Review of risk assessments are required at intervals as show below.
### Table 2: OHS Risk Evaluation Criteria

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<tr>
<th>Level of Risk</th>
<th>Risk Acceptability</th>
<th>Immediate action required</th>
<th>Risk Treatment Priority</th>
<th>Oversight / reporting level</th>
<th>Formal review period</th>
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<tr>
<td>Extreme</td>
<td>No</td>
<td>Task must not proceed. Appropriate and prompt action must be taken to reduce the risk to an acceptable level.</td>
<td>1st</td>
<td>Vice Chancellor, VCRCC, VCC &amp; SR&amp;AC</td>
<td>Operational: 2 days. Corporate: Biannual.</td>
</tr>
<tr>
<td>High</td>
<td>No</td>
<td>Task can only proceed in extraordinary circumstances** and provided there is authorisation by relevant Head of Function* and a plan is in place to promptly reduce the risk to an acceptable level.</td>
<td>2nd</td>
<td>Relevant USMG member and Head of Function* (the risk may be reported by ERS to Vice Chancellor, VCRCC, VCC and SR&amp;AC)</td>
<td>Operational: Biannual. Corporate: Annual.</td>
</tr>
<tr>
<td>Medium</td>
<td>Broadly acceptable</td>
<td>Task can proceed upon approval of the risk assessment by relevant Line Manager or Supervisor is received. It is recommended that a plan is developed to reduce the risk within a reasonable timeframe.</td>
<td>3rd</td>
<td>Relevant Line Manager or Supervisor</td>
<td>Operational: Annual. Corporate: Biennial.</td>
</tr>
<tr>
<td>Low</td>
<td>Yes</td>
<td>Task can proceed upon approval of the risk assessment by relevant Line Manager or Supervisor is received.</td>
<td>4th</td>
<td>Relevant Line Manager or Supervisor</td>
<td>Operational: 5 yearly. Corporate: 5 yearly.</td>
</tr>
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* Relevant Head of Function; Head of school, Institute Deputy Director or Division Director

** Extraordinary circumstances are opportunities for the University that align with its strategic mission and RAS.
6  Control the Risks

“The most important step in the risk management process involves controlling risks by eliminating them so far as is reasonably practicable, or if that is not possible, by minimising the risks so far as is reasonably practicable.” (Safe Work Australia , 2016)

6.1  The hierarchy of control

“The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest. This ranking is known as the hierarchy of control. The WHS Regulations require duty holders to work through this hierarchy to achieve the highest level of protection that is reasonably practicable in the circumstances.” (Safe Work Australia , 2016)

6.2  Eliminate the need to enter a confined space

“Risks associated with work in a confined space must be eliminated so far as is reasonably practicable, and therefore the first question is: can the work be carried out without entering the confined space?

Work could be carried out from outside the confined space by:

- using remote cameras or a mirror attached to a probe for internal inspection of vessels
- using a hook, long-handled clasp or magnet on a string to retrieve an object dropped into a confined space.” (Safe Work Australia , 2016)

6.3  Minimise the risks

“If entering a confined space cannot be avoided, then a safe system for working inside the space must be implemented. The identified hazards will help determine what controls are needed to minimise any risk associated with work in the confined space. Under the WHS Regulations, the following matters must be considered.” (Safe Work Australia , 2016)

6.4  The nature of the space

“The nature of a confined space may contribute to the risks associated with it, for example:

- whether the number, size and location of entrances and exits are adequate to enable the rapid exit and rescue of workers from the space
- the temperature of the space so that it will not cause heat stress
- adequate lighting, if there is poor visibility.” (Safe Work Australia , 2016)

6.5  The concentration of oxygen or airborne contaminants

“The level of oxygen and airborne contaminants is a significant contributor to the risk of working in a confined space, therefore:

- the level of oxygen should be maintained at a safe level and any airborne contaminants in the space are minimised by ventilating prior to and/or during entry
any changes that may occur to oxygen or airborne contaminants are determined by testing the atmosphere

where the atmospheric conditions cannot be maintained at a safe level, appropriate respiratory protective equipment must be provided.” (Safe Work Australia, 2016)

6.6 The work and work method

“Consideration should be given to whether the proposed work or work process will introduce any new hazards or contribute to the risks of working in the confined space. Ignition sources must not be introduced into a space that contains a flammable atmosphere.

Work processes should:

- minimise the release of harmful airborne contaminants into the space
- reduce the time spent in the space or the number of people that have to enter the space
- eliminate the risk of engulfment.

Consider any risks associated with the use of personal protective equipment (PPE) in a confined space. Using PPE may introduce new risks for those working in the space, for example the weight or discomfort of protective clothing and hearing protection.” (Safe Work Australia, 2016)

6.7 Emergency procedures

“When things go wrong in a confined space, people may be exposed to serious and immediate danger. Effective arrangements for raising the alarm and carrying out rescue operations in an emergency are essential.” (Safe Work Australia, 2016)

6.8 Permit System

“A confined space entry permit provides a formal check to ensure all elements of a safe system of work are in place before people are allowed to enter the confined space. It also provides a means of communication between site management and those carrying out the work and ensures that a UQ nominated competent person has checked and authorised the entry to the confined space and it is safe to proceed.

- The permit form should be designed and completed in such a way as to enable clear identification and recording of the space that each permit applies to.
- A permit may be required for varying periods of time depending on the time required to complete the work being carried out in a confined space
- The permit should be re-validated if the person with direct control of work in the space changes, a break in work continuity occurs, changes are made to the work that introduce hazards not addressed by the current permit, or new controls measures are needed.

The entry permit must be used as a written record that all workers have exited the confined space on completion of the work. It should be displayed in a prominent place to facilitate signing and clearance. Each worker must be able to understand the entry permit” (Safe Work Australia, 2016)
6.9 **Isolation**

“All potentially hazardous services should be isolated prior to any person entering the confined space.

Isolate to prevent:

- the introduction of contaminants or conditions through piping, ducts, vents, drains, conveyors, service pipes and fire protection equipment
- the activation or energising of machinery in the confined space
- the activation of plant or services outside the confined space that could adversely affect the space (for example heating or refrigerating methods)
- the release of any stored or potential energy in plant
- the inadvertent use of electrical equipment.

If liquids, gases or vapours could enter the confined space the pipe work should be physically isolated.

Isolation measures, for example physically locking, tagging, closing and blanking should be supervised or checked at each isolation point. Isolation measures should be supported by systems to ensure that the isolation measures are not removed until all work is complete and all workers have left the space. Refer to PPL 2.20.08 for additional information.

Methods of isolation from materials, contaminants or conditions include isolating in accordance with one of the methods described below or by an alternative method ensuring at least an equivalent level of safety.” (Safe Work Australia, 2016)

- Removing a valve, spool piece or expansion joint in piping leading to the confined space (as close as practicable to the space) and blanking or capping the open end of the piping (see Figure 4). The blank or cap should be tagged to indicate its purpose.
- **Blanks or caps** should be made of a material that is compatible with the liquid, vapour or gas with which they are in contact. The material should also have sufficient strength to withstand the maximum operating pressure, for example surges, which can build up in the piping.

**Figure 4** Open end of pipe capped. Nearest valve closed locked and tagged. (Safe Work Australia, 2016)
• Inserting a suitable **full-pressure spade or blank** in piping between the flanges as close as practicable to the confined space (see Figure 5). The full-pressure spade or blank should be tagged to indicate its purpose.

**Figure 5** Insertion of full pressure spade or blank. Nearest valve closed, locked and tagged. Spade is also tagged to indicate its purpose (Safe Work Australia, 2016)

• Closing, locking and tagging at least two valves in the piping leading to the confined space (see Figure 6). A drain or vent valve between the two closed valves should be **locked open to atmosphere** as part of this method.

**Figure 6** Closing, locking and tagging at least two valves (Safe Work Australia, 2016)

### 6.10 Unsafe Atmosphere

“If it is not reasonably practicable to ensure the confined space contains a safe oxygen level, or safe levels of airborne contaminants, then **appropriate respiratory protective equipment must be provided**. The respiratory protective equipment should be provided and worn in situations where there is no exposure standard for a substance, or where the substance is present in an unknown concentration.” (Safe Work Australia, 2016)
6.11 Communication and safety monitoring

“A communication system is needed to enable communication between people inside and outside the confined space and to summon help in an emergency. Depending on the conditions in the confined space, communication can be achieved by voice, radio, hand signals or other suitable methods. Before a worker enters a confined space, a standby person must be assigned to continuously monitor the wellbeing of those inside the space, if practicable observe the work being carried out and initiate appropriate emergency procedures when necessary (see Figure 6).

The standby person should:

- understand the nature of the hazards inside the particular confined space and be able to recognise signs and symptoms that workers in the confined space may experience
- remain outside the confined space and do no other work which may interfere with their primary role of monitoring the workers inside the space
- have all required rescue equipment (for example, safety harnesses, lifting equipment, a lifeline) immediately available
- have the authority to order workers to exit the space if any hazardous situation arises
- never enter the space to attempt rescue.

Figure 7 Standby person monitoring the confined space with rescue equipment and sign in place
6.12 **Entry and exit procedures**

“For the entire period the confined space entry permit is valid, procedures should be in place to indicate when any worker is in the space, for example by using tags, a system of signing in and out on the entry permit, or having a standby person record who is in the space.” (Safe Work Australia, 2016)

6.13 **Signs and barricades**

“Before any work in relation to a confined space starts, signs must be erected to prevent entry of persons not involved in the work.

Signs must warn against entry by people other than those who are listed on the confined space entry permit, and must be placed at each entrance to the confined space. Signs must be in place while the confined space is accessible, including when preparing to work in the space, during work in the space and when packing up on completion of the work.

Signposting alone should not be relied on to prevent unauthorised entry to a potential confined space. Security devices, for example locks and fixed barriers, should be installed.” (Safe Work Australia, 2016)

6.14 **Information, instruction and training**

The University will provide training so that all staff whose work is related to this policy will acquire the understanding, knowledge, and skills necessary for the safe performance of their duties.

UQ staff mentioned above must have the skills and knowledge to understand the hazards associated with working in the confined space, the contents of any confined space entry permit, and the control measures implemented for their protection.

Training should be provided to staff whom:
- enter or work in confined spaces
- issue entry permits
- act as a standby person or communicate with workers in a confined space
- purchase equipment for confined space work

Re-training or refresher training should be provided every three years. Records of all training provided to workers in relation to confined spaces will be kept for 2 years.

6.15 **Maintenance of confined space entry equipment**

The following equipment should be inspected annually:
- atmospheric testing and sampling equipment
- personal protective equipment including respirators
- ventilation equipment
- safety harness and lines
- emergency rescue equipment.
7 **Emergency Procedures**

The University of Queensland “must establish a first aid and rescue procedure when working in a confined space. This first aid and rescue procedure must be initiated from outside the confined space.

All employees who may be involved with rescues from a confined space should be made aware that rescue procedures are to be followed at all times. This training will include procedures where:

- employees are uninjured and evacuate themselves,
- employees are injured but still capable of self-evacuation,
- entry is required to provide treatment,
- employees are assisted to evacuate by persons remaining outside the confined space, and
- emergency entry is required in order to evacuate employees.” (Safe Work Australia, 2016)

Different confined spaces exist at UQ and the plans and procedures appropriate to the types of situations that may arise from work in a confined space should be put in place using the information from the risk assessment.

Consistent with all emergency plans at UQ will be the emergency number 336 53333.

It may be necessary to coordinate the emergency plan with UQ Security.

The openings for entry and exit must be big enough to allow emergency access and egress.

8 **Confined Spaces Register**

A list of known confined spaces is listed in the UQ confined space register. This is to aid in the development of risk assessment (UQ Staff) and SWMS (Contractors).

These documents must be produced and approved prior to the issue of the confined space permit. [https://sharepoint.uq.edu.au/pf/ohs/ConfinedSpace/Lists/Register](https://sharepoint.uq.edu.au/pf/ohs/ConfinedSpace/Lists/Register)
## Roles and Responsibilities

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<tr>
<th>POSITION</th>
<th>RESPONSIBILITY</th>
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| Director Property & Facilities        | • Approve P&F Confined Space Management Plan.  
• Ensure P&F staff and contractors comply with the provisions of the P&F Confined Space Management Plan.  
• Allocate funding for the implementation of the P&F Confined Space Management Plan. |
| P&F Associate Directors               | • Ensure all P&F staff and contractors working for them and their sections are aware of and comply with the P&F Confined Space Management Plan. |
| P&F Project Managers                  | • Project management.  
• Ensure all contractors intending to work in a confined are aware of and meet the requirements of the P&F Confined Spaces Management Plan.  
• Review and approve safe work method statements at least two days prior to the start of work.  
• Ensure permit to work is signed for all confined space entry.  
• Ensure the prompt reporting of any incident.  
• Maintain appropriate records for confined space entry. |
| P&F Logistics Manager                 | • Ensure confined space equipment is maintained in a survivable condition.  
• Ensure sufficient items of confined space entry equipment are available in the store. |
| Gatton and Remote Sites – Senior Client Facility Manager | • Ensure confined space equipment is maintained in a survivable condition.  
• Ensure sufficient items of confined space entry equipment are available in the store. |
| P&F Health and Safety Coordinator     | • Arranged confined space training for P&F Staff.  
• Assist Project Managers with the review and approval of safe work method statements.  
• Investigate incidents.  
• Audit effectiveness of the confined space management system. |
| Manager UQ Security                   | • Provide emergency assistance in the event of an incident involving a confined space.  
• To prohibit access to known confined spaces without the approved confined space entry permit. |
| P&F Staff and Contractors             | • Not to work or access a confined space unless all requirements of this plan have been addressed.  
• To bring to the attention of the Project Manager or Client Facility Manager any location they consider is a confined space that may require entry as part of their work.  
• Refer to the P&F Confined Spaces Management Plan for guidance to work safely in a confined space.  
• Submit a Confined Spaces Entry Permit to the Project Manager or Client Facility Manager when performing work in a confined space.  
• Develop a risk assessment for the work. |
| P&F Contractors                       | • Submit a Confined Spaces Entry Permit to the Project Manager or Client Facility Manager when performing work in a confined space.  
• Undergo P&F Contractor Induction.  
• Develop a site-specific safe work method statement for the work. |
| Students, UQ Staff and Visitors       | • Comply with the P&F Confined Space Management Plan. |
10 Relevant legislations, codes of practice and standards.

Queensland Work Health and Safety Act 2011
Queensland Work Health and Safety Regulations 2011
Workplace Health and Safety Queensland, Confined spaces, Code of Practice 2011 PN11162
AS 2865 – Safe Working in a Confined Space

Works Cited


Appendix 1 Confined Space Permit