



# CONFINED SPACE MANAGEMENT PROCEDURE

Version No	6.0
Issued	24 <sup>th</sup> July 2014
Next Review	July 2017
GDS	12.63.1.1

## 1. OVERVIEW

The Flinders Ranges Council as part of its commitment under its Hazardous Work Policy, recognises its obligation to eliminate, or where that is not reasonably practicable, minimise, risks associated with entering, working in, on or in the vicinity of a confined space, as well as the risk of inadvertent entry.

This Procedure aims to:

- Assist with the identification of risks to health and safety associated with a confined space.
- Provide direction so that legislative compliance related to confined spaces is maintained.
- Make sure the provision of relevant information and training.

Where a PCBU is engaged to work in, on or in the vicinity of a confined space for Council, the person managing the contract for The Flinders Ranges Council should make the PCBU aware of the hazards associated with the confined space and make sure (and document) that the contractor has appropriate systems to manage the confined space work safely.

SIGNED .....  
Chief Executive Officer

.....  
Chairperson, WHS Committee

Date: 24 / 7 / 2014

Date: 24 / 7 / 2014

## 2. CORE COMPONENTS

The core components of our confined space management procedure aim to make sure:

- **COUNCIL WORKERS, WHO HAVE NOT UNDERTAKEN CONFINED SPACE TRAINING, DO NOT WORK IN OR ENTER CONFINED SPACES**
- All confined spaces are identified and documented on the confined space register.
- All entry points to confined spaces are signposted and secured against unauthorised entry.
- A written risk assessment is conducted by a competent person prior to the first entry into the confined space.
- Appropriate controls are identified, implemented and documented.
- A written confined space entry permit system is in place and used.
- In addition to the controls specified, a Safe Work Method Statement is prepared for proposed high risk construction work involving work carried out in or near a confined space.
- Selected staff are trained for the various roles associated with confined space work and possess evidence of general construction induction training when necessary, in accordance with legislative requirements.
- Appropriate arrangements for the effective rescue of personnel are in place.
- An appropriate monitoring process is in place and used.
- Confined space process is included within the internal audit program.
- Pertinent records are established and maintained.

## 3. DEFINITIONS

Airborne contaminants	A contaminant in the form of a fume, mist, gas, vapour or dust, and includes micro-organism [as defined by the WHS Regulations 2012, p.27].
Atmospheric monitoring	The continuous measurement of oxygen concentration or airborne contaminants over an uninterrupted period of time [as defined by Australian Standard AS 2865: Confined Spaces].

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Confined space	<p><b>Confined space</b> means an enclosed or partially enclosed space that—</p> <ul style="list-style-type: none"> <li>(a) is not designed or intended primarily to be occupied by a person; and</li> <li>(b) is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and</li> <li>(c) is or is likely to be a risk to health and safety from— <ul style="list-style-type: none"> <li>(i) An atmosphere that does not have a safe oxygen level; or</li> <li>(ii) Contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion; or</li> <li>(iii) Harmful concentrations of any airborne contaminants; or</li> <li>(iv) Engulfment,</li> </ul> </li> </ul> <p>but does not include a mine shaft or the workings of a mine. [as defined by WHS Regulations, 2012, Regulation 5 p. 32]</p>
Construction work	<p>means any work carried out in connection with the construction, alteration, conversion, fitting-out, commissioning, renovation, repair, maintenance, refurbishment, demolition, decommissioning or dismantling of a structure [as defined by the WHS Regulations 2012 (289)(1)]</p> <p><u>But</u> does not include the following:</p> <ul style="list-style-type: none"> <li>(a) The manufacture of plant.</li> <li>(b) The prefabrication of elements, other than at a place specifically established for the construction work, for use in construction work.</li> <li>(c) The construction or assembly of a structure that once constructed or assembled is intended to be transported to another place.</li> <li>(d) Testing, maintenance or repair work of a minor nature carried out in connection with a structure.</li> <li>(e) Mining or the exploration for or extraction of minerals.</li> </ul> <p>[as defined by the WHS Regulations 2012 (289)(3)]</p>
Contaminant	<p>Means any substance that may be harmful to health or safety [as defined by the WHS Regulations, 2012, p. 33].</p>
Competent person:	<p>In addition to competencies specified in the WHS Regulations, 2012, “<i>for any other case—a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task</i>”. [as defined by the WHS Regulations, 2012, p. 32]</p>
Engulfment	<p>Engulfment means to be swallowed up in or be immersed by material, which may result in asphyxiation [as defined in the COP: Confined Spaces December 2011, p. 12]</p>
Entry (to a confined space)	<p>Entry by a person into a confined space, means the person's head or upper body is in the confined space or within the boundary of the confined space [as defined by the WHS Regulations, 2012, p. 35].</p> <p>NOTE: Inserting an arm for the purpose of atmospheric testing is not considered an entry to a confined space [as defined by Australian Standard AS 2865: Safe working in a confined space].</p>
Entry permit	<p>A person conducting a business or undertaking at a workplace must not direct a worker to enter a confined space to carry out work unless the person has issued a confined space entry permit for the work [as defined by the WHS Regulations, 2012, (67)].</p> <p>A confined space entry permit provides a formal check to make sure 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, supervisors and those carrying out the work and makes sure that the person conducting the business or undertaking has checked and authorised the entry to the confined space and it is safe to proceed [as defined in the COP: Confined Spaces December 2011, p. 20]</p>

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<b>Hazard</b>	Hazard means a situation or thing that has the potential to harm a person. Hazards at work may include: noisy machinery, a moving forklift, chemicals, electricity, working at heights, a repetitive job, bullying and violence at the workplace [as defined in the COP: How to Manage Health and Safety Risks p4]
<b>Hierarchy of Control</b>	<p>If it is not reasonably practicable for risks to health and safety to be eliminated, risks should be minimised, so far as is reasonably practicable, by doing 1 or more of the following:</p> <p>(a) Substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk.</p> <p>(b) Isolating the hazard from any person exposed to it.</p> <p>(c) Implementing engineering controls.</p> <p>If a risk then remains, the duty holder should minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls.</p> <p>If a risk then remains the duty holder should minimise the remaining risk, so far as is reasonably practicable, by ensuring the provision and use of suitable personal protective equipment [as defined by the WHS Regulations 2012, Regulation 36].</p>
<b>High risk construction work</b>	<p>means construction work that:</p> <p>(a) Involves a risk of a person falling more than 3 metres; or</p> <p>(b) Is carried out on a telecommunication tower; or</p> <p>(c) Involves demolition of an element of a structure that is load-bearing or otherwise related to the physical integrity of the structure; or</p> <p>(d) Involves, or is likely to involve, the disturbance of asbestos; or</p> <p>(e) Involves structural alterations or repairs that require temporary support to prevent collapse; or</p> <p>(f) Is carried out in or near a confined space; or</p> <p>(g) Is carried out in or near—</p> <p>(i) A shaft or trench with an excavated depth greater than 1.5 metres; or</p> <p>(ii) A tunnel; or</p> <p>(h) Involves the use of explosives; or</p> <p>(i) Is carried out on or near pressurised gas distribution mains or piping; or</p> <p>(j) Is carried out on or near chemical, fuel or refrigerant lines; or</p> <p>(k) Is carried out on or near energised electrical installations or services; or</p> <p>(l) Is carried out in an area that may have a contaminated or flammable atmosphere; or</p> <p>(m) Involves tilt-up or precast concrete; or</p> <p>(n) Is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor that is in use by traffic other than pedestrians; or</p> <p>(o) Is carried out in an area at a workplace in which there is any movement of powered mobile plant; or</p> <p>(p) Is carried out in an area in which there are artificial extremes of temperature; or</p> <p>(q) Is carried out in or near water or other liquid that involves a risk of drowning; or</p> <p>(r) Involves diving work.</p> <p>[as defined by the Work Health and Safety Regulations 2012(291)]</p>
<b>Hot work</b>	<p>Welding, thermal or oxygen cutting, heating, including fire-producing or spark-producing operations that may increase the risk of fire or explosion.</p> <p>[as defined by Australian Standard AS 2865: Confined Spaces p 6].</p>
<b>HSR</b>	Health and safety representative.
<b>Lower Explosive Limit (LEL)</b>	In relation to a flammable gas, vapour or mist, means the concentration of the gas, vapour or mist in air below which the propagation of a flame does not occur on contact with an ignition source [as defined in the WHS Regulations, 2012 p 42]

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Minimise	To reduce to the lowest level that is reasonably practicable to achieve.
Monitor	To check, supervise, observe critically or measure the progress of an activity, action or system on a regular basis, in order to identify change from the performance level required or expected.
PPE	Personal Protective Equipment means anything used or worn by a person to minimize risk to the person's health and safety, including air supplied respiratory equipment. [as defined in the WHS Regulations, 2012 p. 44]
Safe Atmosphere	A safe atmosphere in a confined space is one that: <ul style="list-style-type: none"> <li>• Has a safe oxygen level.</li> <li>• Is free of airborne contaminants or any airborne contaminants are in concentrations below their allowable exposure standard (if any).</li> <li>• Any flammable gas or vapour in the atmosphere is at concentrations below 5% of its LEL.</li> </ul> [as defined in the COP: Confined Spaces December 2011, p. 24]
Stand-by person	A person 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. The standby person should: <ul style="list-style-type: none"> <li>• 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.</li> <li>• Remain outside the confined space and do no other work which may interfere with their primary role of monitoring the workers inside the space.</li> <li>• Have all required rescue equipment (for example, safety harnesses, lifting equipment, a lifeline) immediately available.</li> <li>• Have the authority to order workers to exit the space if any hazardous situation arises.</li> <li>• Never enter the space to attempt rescue.</li> </ul> [as defined by the COP: Confined Spaces December 2011, pp.26-27]

## **4. PROCEDURE**

### **4.1. Design, manufacture, supply or modification to a confined space**

- 4.1.1. Any person, who designs, manufactures or supplies plant or a structure to Council, or who installs or constructs a plant or structure on Council premises, is required to eliminate the need for any person to enter a confined space and eliminate the risk of inadvertent entry. If this is not reasonably practicable, then design or procurement documentation should be provided that verifies how the following requirements have been met:
  - a. The need for any person to enter the confined space has been minimised so far as is reasonably practicable.
  - b. The space has been designed with a safe means of entry and exit, and
  - c. The risk to the health and safety of any person who enters the confined space has been eliminated or minimised, as far as is reasonably practicable.
- 4.1.2. Managers and team leaders with responsibility for overseeing design, manufacture and installation of a plant or structure with a confined space should make sure that safety features are incorporated during the design, manufacturing and/or installation stages and documentation should be sought from the manufacturer, supplier or installer that verifies their presence. At the design and manufacturing stage, safety features should include:
  - a. The provision of outlets and facilities for cleaning, to eliminate the need for entry.

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- b. The use of lining materials that are durable, require minimal cleaning and do not react with materials contained in the confined space.
- c. The design of the structure and mechanical parts provides for safe and easy maintenance to reduce the need for a person to enter.

At the design, manufacturing or installation stage, safety features should include, where relevant:

- d. Access points (including those within the confined space, through divisions, partitions or obstructions) that are large enough to allow people wearing the necessary protective clothing and equipment to pass through, and to permit the rescue of all people who may enter the confined space.
- e. The provision of a safe means of access to and within the confined space, such as fixed ladders, platforms and walkways. Further guidance is available in AS 1657 Fixed Platforms, Walkways, Stairways and Ladders – Design, Construction and Installation.
- f. Access points that are unobstructed by fittings or equipment that could impede rescue and should also be kept free of any obstructions during work in the confined space. If equipment such as electrical cables, leads, hoses and ventilation ducts are required to pass through an access hole, a second access point may be needed.
- g. The provision of enough access points to provide safe entry to and exit from the confined space. For example, the spacing of access holes on sewers (or in the case of large gas mains, the absence of such access holes over considerable lengths) may affect both the degree of natural ventilation and the ease with which persons can be rescued.

- 4.1.3. Managers and team leaders with responsibility for overseeing design, manufacture and installation of a plant or structure with a confined space should make sure that the Works Coordinator is informed of the location of any new confined space so that it can be recorded in the Confined Space register.

## **4.2. Identification of confined spaces**

- 4.2.1. The Senior Leadership Team should make sure all The Flinders Ranges Council confined spaces are identified and their location recorded in a confined space register.
- 4.2.2. The Senior Leadership Team should make sure that a competent person has identified all confined spaces in consultation with workers and their representatives using the flowchart in Appendix 1. The Senior Leadership Team shall make sure the Works Coordinator maintains the confined space register and makes it available to all relevant workers.

## **4.3. Security and signposting**

- 4.3.1. Confined spaces should be secured against unauthorized or inadvertent entry.
- 4.3.2. The entry points to all confined spaces should be permanently signposted, in accordance with Australian Standard AS 1319: Safety Signs for the Occupational Environment.

## **4.4. Hazard identification and risk assessment**

- 4.4.1. Before any work which involves entry into a confined space is commenced for the first time, a risk assessment shall be conducted by a competent person in consultation with workers and their representatives e.g. the manager or supervisor, experts, HSR (see part B of the Confined Space Risk Assessment form).



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The risk assessment must assess the risks associated with entering, working in, working on, or working the vicinity of a confined space, including the risk of a person inadvertently entering the confined space. This includes work carried out in or near a confined space when high risk construction work is being proposed or undertaken.

- 4.4.2. The risk assessment should consider the following matters, namely:
- Whether the work can be carried out without the need to enter the confined space; and
  - The nature of the confined space; and
  - If the hazard is associated with the concentration of oxygen or the concentration of airborne contaminants in the confined space-any change that may occur in that concentration, and
  - Whether atmospheric testing or monitoring is required to be undertaken and the required frequency; and
  - The work required to be carried out in the confined space, the range of methods by which the work can be carried out and the proposed method of working;; and
  - The type of emergency procedures, including rescue procedures required; and
  - Specific hazards associated with confined space entry as per the confined space risk assessment and
  - The competence of the persons to conduct the tasks.

- 4.4.3. The risk assessment shall be documented and attached to the confined space entry permit.
- A single (or generic) risk assessment may be carried out for a class of confined spaces in a number of different work areas or workplaces where the confined spaces are the same. This should only be appropriate if all of the hazards being covered are the same.
  - A risk assessment should be carried out on individual confined spaces if there is any likelihood that a worker may be exposed to greater, additional or different risks.
  - A safe operating procedure or work instruction should be developed for the task being undertaken in the confined space, in consultation with workers involved in the task (or if it is generic, in consultation with workers likely to be involved in the task).
  - The safe operating procedure or work instruction should result in the:
    - Minimisation of the release of harmful airborne contaminants into the space.
    - Reduction in the time spent in the space or the number of people that have to enter the space.
    - Elimination of the risk of engulfment when working in the space.

- 4.4.4. The person issuing the confined space entry permit should make sure that the findings of the risk assessment and any safe operating procedure or work instruction are explained to those persons involved in the activity and is signed by each person before any work commences.

## 4.5. Confined space entry permit

- 4.5.1. Confined space entry shall be controlled by a permit system.

The Senior Leadership Team should make sure managers and supervisors do not direct a worker to enter a confined space to carry out work unless a confined space entry permit for the work has been issued.

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- 4.5.2. Departmental managers should authorise those persons competent to authorise and issue a confined space entry permit prior to any work commencing in a confined space and direct and supervise the work.  
A list of persons authorised to issue a confined space entry permit shall be maintained.
- 4.5.3. The confined space entry permit must:
- Be completed by a competent person.
  - Be in writing.
  - Address all of the specific requirements as laid out in the Confined Space Entry Permit.
- Appendix 2 contains a sample confined space entry permit.
- 4.5.4. A confined space entry permit must be issued for each entry into the confined space.
- Each permit only applies to one confined space and allows one or more workers to enter that space.
  - The following documents should be attached to the entry permit:
    - The completed Confined Space Risk Assessment.
    - The safe operating procedure or work instruction for the task.
- 4.5.5. The person issuing a confined space entry permit should make sure that each person who is to carry out the work as described in the entry permit, is advised of, and understands the contents of the entry permit.
- 4.5.6. The confined space entry permit shall be documented and be displayed in a prominent place adjacent to the confined space entry.
- 4.5.7. The confined space entry permit shall record each person who enters and exits the confined space and each person required for stand-by purposes.
- 4.5.8. The competent person issuing the confined space entry permit should make sure the information and risk control measures identified in the risk assessment are listed on the confined space entry permit and are in place before work commences and the risk control measures continued while work is being undertaken in the space.  
This includes making sure any plant, equipment, PPE or testing equipment is in good working order before work commences.
- 4.5.9. The confined space entry 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 introduces hazards not addressed by the current permit.
  - New control measures are needed.
- 4.5.10. Any hot work required to be undertaken in or on the exterior surfaces of a confined space shall not be commenced unless a hot work permit has also been issued.
- 4.5.11. The person issuing the confined space entry permit shall make sure that a written acknowledgment of the completion of the work in the confined space is signed off and that all persons involved in the work have left the space at the end of the task.

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## 4.6. Signage

4.6.1. Before any work in relation to a confined space starts, the person issuing the confined space entry permit should make sure that signs are erected to prevent entry of persons not involved in the work. The signs must:

- Identify the confined space; and
- Inform workers that they must not enter the space unless they have a confined space entry permit; and
- Be clear and prominently located next to each entrance to the space.

4.6.2. 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.

4.6.3. 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.

## 4.7. Communication and Safety Monitoring

4.7.1. A communication system is needed to enable communication between people inside and outside the confined space and to summon help in an emergency. The person issuing the confined space entry permit should make sure that:

- No person enters a confined space unless a person or persons are on stand-by outside the confined space.
- The standby person is a competent person in relation to confined space entry.
- The standby person is assigned to continuously monitor the conditions within the space, the wellbeing of those inside the space, and if practicable observe the work being carried out and initiate appropriate emergency procedures when necessary.
- The names of standby persons and any requirements should be recorded on the confined space entry permit.

4.7.2. 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.

4.7.3. The person issuing the confined space entry permit should make sure that a system for continuous communication between people inside and outside the confined space is in place and it is fully functioning before confined space entry is undertaken.

- Depending on the conditions in the confined space, communication can be achieved by voice, radio, hand signals or other suitable methods.
- The type of communication equipment selected should be recorded on the confined space entry permit.



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## 4.8. Risk Control

4.8.1. Based on the Hierarchy of Control, the risk assessment should clearly indicate what control measures are to be used (see part C of the Confined Space Risk Assessment form)

- a. Some risk control measures are mandatory for confined spaces.
- b. In all instances, an attempt should be made to eliminate the risk, including the need for persons to enter a confined space. If this not possible, a combination of control measures may be required to effectively manage any identified hazards. Completed risk assessments shall be available to persons entering confined spaces and other interested parties (WHS Committees, HSRs, other PCBU's, etc).

## 4.8.2. Specific control – connected plant and services

a. The person issuing the confined space entry permit should make sure all potentially hazardous services have been isolated prior to any person entering the confined space, to prevent:

- The introduction of contaminants, substances or conditions into the confined space from or by any plant or services connected to the confined space, including through piping, ducts, vents, drains, conveyors, service pipes and fire protection equipment.
- The activation or energising in any way of any plant or services connected to the confined space or 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.

The Isolation, Lock Out, Tag Out Procedure should be complied with, when relevant.

b. Any risk associated with the above must, so far as is reasonably practicable, be eliminated. If it is not reasonably practicable to eliminate the risk, the risk must be minimised in accordance with The Flinders Ranges Council Isolation, Lock Out, Tag Out Procedure.

## 4.8.3. Specific control – atmosphere

a. The person issuing the confined space entry permit should make sure that the confined space has a safe atmosphere, so far as is reasonably practicable, during work in a confined space. A safe atmosphere in a confined space is one that:

- Has a safe oxygen level.
- Is free of airborne contaminants or any airborne contaminants are in concentrations below their allowable exposure standard (if any).
- Any flammable gas or vapour in the atmosphere is at concentrations below 5% of its LEL.

b. A safe atmosphere can be achieved within the confined space using methods such as cleaning, purging and ventilation.

c. 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 (for example, 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.

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- d. 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.
- e. Purging or ventilation of any contaminant in the atmosphere of the confined space must be carried out, so far as is reasonably practicable and pure oxygen or gas mixtures with oxygen in a concentration exceeding 21% by volume are not to be used for purging or ventilation of any airborne contaminant in the space.
- f. The space must be purged when a risk assessment identifies the potential for the confined space to contain an unacceptable level of contaminants.
- g. Ventilation of a confined space with fresh air, by natural, forced or mechanical means, may be necessary to establish and maintain a safe atmosphere and temperature for as long as anyone is in the confined space.
  - If the confined space has sufficient openings then natural ventilation may be adequate, but in most cases mechanical ventilation is likely to be needed.
- h. If it is not reasonably practicable to provide a safe oxygen level (e.g. the oxygen level is less than 19.5% by volume), the person issuing the confined space entry permit must make sure that any worker carrying out work in the space should be provided with air supplied respiratory equipment.
- i. If atmospheric contaminants cannot be reduced to safe levels, the person issuing the confined space entry permit should make sure that a person does not enter a confined space unless the person is equipped with suitable respiratory protective equipment.
  - 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. Further guidance is available in *AS/NZS 1715: Selection, Use and Maintenance of Respiratory Protective Devices*.

## **4.8.4. Respiratory Specific control – flammable gases and vapours**

- a. The person issuing the confined space entry permit should make sure, so far as is reasonably practicable, that while work is being carried out in a confined space, the concentration of any flammable gas, vapour or mist in the atmosphere of the space is less than 5% of its LEL.
  - If it is not reasonably practicable to limit the concentration of any flammable gas, vapour or mist in the atmosphere of the confined space to less than 5% and the atmospheric concentration of the flammable gas, vapour or mist in the confined space is:
    - Equal to or greater than 5% but less than 10% of its LEL - workers must be immediately removed from the space unless a suitably calibrated, continuous-monitoring flammable gas detector is used in the confined space; or
    - Equal to or greater than 10% of its LEL - workers must be immediately removed from the confined space.
- b. An ignition source must not introduced into a confined space (from outside or within the space) if there is a possibility of the ignition source causing a fire or explosion in the confined space.

## **4.8.5. Construction work, including high risk construction work**

- a. When Council undertakes construction work, the contract or project manager must make sure workers are not directed or allowed to carry out

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construction work unless workers have successfully completed general construction induction training (e.g. white card).

- b. When Council undertakes high risk construction work involving work carried out in or near a confined space, the contract or project manager must make sure:
  - A SWMS is prepared before the proposed work commences.
  - The high risk construction work is carried out in accordance with the SWMS.
  - A copy of the SWMS is given to the principal contractor before the work commences and is made readily accessible to any worker involved in the work.
  - The SWMS is reviewed and revised as necessary.
  - A copy of the SWMS is retained until the high risk construction work is completed, unless a notifiable incident occurs, in which case it should be kept for at least 2 years after the incident occurs.
  - Workers on site can demonstrate completion of general construction induction training (e.g. white card).
- c. When Council contracts construction work, including high risk construction involving work carried out in or near a confined space, the contract or project manager should consult with the relevant PCBU's, so far as is reasonably practicable, if their duty of care overlaps.

## 4.8.6. Emergency procedure

- a. The Senior Leadership Team should make sure that emergency procedures or processes are developed to manage potential emergencies in confined spaces, which must include:
  - The first aid and rescue procedures to be followed in an emergency in a confined space (see Appendix 3 and part D of the Confined Space Risk Assessment form).
  - Testing by practice regularly with workers who undertake work in confined spaces to ensure they are efficient and effective.
- b. The Senior Leadership Team should make sure that:
  - Openings for entry and exit of the confined space are large enough to allow emergency access; the entry and exit openings are not obstructed; and any plant, equipment and personal protective equipment provided for first aid or emergency rescue are maintained in good working order.
  - Prior arrangements have been made with emergency services to make sure that they are able to respond to confined space emergencies, as relevant.
  - Any worker required to undertake rescue has been properly trained, is sufficiently fit to carry out their task and is capable of using any equipment provided for rescue (eg breathing apparatus, lifelines and fire-fighting equipment).
- c. Air supplied respiratory equipment must be available and maintained in good working order if staff are required to undertake rescue in the following situations, namely:
  - The atmosphere in the confined space does not have a safe oxygen level; or
  - The atmosphere in the space has a harmful concentration of an airborne contaminant; or
  - There is a serious risk of the atmosphere in the space becoming affected in the confined space, as described in the dot points above, while the worker is in the space.

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- d. If the risk assessment identifies the serious risk of engulfment of the confined space occurring while the worker is in the confined space or an engulfment occurring inside the confined space, suitable personal protective equipment should be provided to the worker.
- e. The person issuing the confined space entry permit should record the emergency response procedures and equipment required on the permit.
- f. The standby person should initiate first aid and rescue procedures from outside the confined space as soon as practicable in an emergency.

## 4.9. Work completed in the confined space

4.9.1. The person issuing the confined space entry permit shall make sure that a written acknowledgment of the completion of the work in the confined space is signed off and that all persons involved in the work have left the space at the end of the task.

4.9.2. The person issuing the confined space entry permit should make sure relevant records are retained within The Flinders Ranges Council records management system.

## 4.10. Accident or Incidents in a confined space

4.10.1. A rescuer or first aid officer should follow the control measures documented in The Flinders Ranges Council emergency plan for the confined space.

4.10.1. Any person suspected of receiving an electrical shock in a confined space should be taken for medical assessment regardless of how well they feel.

4.10.2. If a notifiable incident occurs, namely:

- The death of a person; or
- A serious injury or illness of a person; or
- A dangerous incident.

A report must be made by the WHS Coordinator as follows:

- a. SafeWork SA:
  - Report by the fastest available means. The report can be made by phone or in writing (such as by fax, email or other electronic means).
  - If the notification is by phone this must be followed up in writing within 48 hours if SafeWork SA requests it.
  - The 24 hour Emergency Telephone number is 1800 777 209.
- b. Office of the Technical Regulator
  - All incidents involving electricity must be reported to the Office of the Technical Regulator by the electrical worker or the occupier of the premises where the incident occurs.
  - Death must be reported immediately via telephone. Phone: (08) 8226 5500 - Business Hours. (1800 558 811 After Hours)
  - Any accident where a person requires medical assistance must be reported within one working day.
  - All other accidents involving electricity must be reported to the Office of the Technical Regulator within 10 working days of the day of the accident.

4.10.3. The Incident Reporting and Investigation Procedure should be complied with, including the requirement that the site where the incident occurred is not disturbed until an inspector arrives at the site or any earlier time that an inspector directs.

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## 4.11. Monitoring and evaluation

- 4.11.1. Department managers should review and revise any existing risk control measures related to confined spaces, using the same methods as the initial hazard identification process:
  - a. When the control measure does not minimise the risk so far as is reasonably practicable.
  - b. Before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control.
  - c. If a new hazard or risk is identified.
  - d. If the results of consultation indicate that a review is necessary.
  - e. If a health and safety representative requests a review in accordance with the WHS Risk Management procedure.
- 4.11.2. Department managers should monitor confined space entry by:
  - a. Periodically inspecting:
    - Confined space documentation (eg risk assessments, entry permits) to make sure they have been fully completed.
    - Confined space work to check compliance with documented procedures.
  - b. Checking that training and competency requirements are maintained.
- 4.11.3. The WHS Committee should monitor and review confined space activity at least annually during its meetings. A report shall be presented to the Senior Leadership Team listing outstanding items requiring their direction or enforcement.
- 4.11.4. The Senior Leadership Team shall review hazard and incident statistics related to confined space work, audit results, legislative changes and other information relating to the confined space management procedure and direct action when required. Minutes shall record outcomes of discussion and actions undertaken.
- 4.11.5. The Confined Space Management Procedure shall be subject to audit and the audit findings shall be reported as part of the ongoing management review process.
- 4.11.6. The Senior Leadership Team shall set, monitor and review objectives, targets and performance indicators for confined space management, as relevant.

## **5. TRAINING**

- 5.1. The Flinders Ranges Council training needs analysis shall identify the training needs for those persons who:
  - 5.1.1. Are required to enter or work in or on a confined space.
  - 5.1.2. Are required to successfully complete general construction induction training (white card) when carrying out construction work.
  - 5.1.3. Undertake hazard identification and risk assessment in relation to a confined space.
  - 5.1.4. Implement risk control measures.
  - 5.1.5. Issue entry permits.
  - 5.1.6. Act as a standby person or communicate with workers in a confined space.
  - 5.1.7. Monitor conditions while work is being carried out.
  - 5.1.8. Purchase equipment for confined space work.
  - 5.1.9. Design or lay out a work area that includes a confined space.
  - 5.1.10. Manage or supervise persons working in or near a confined space.



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- 5.1.11. Purchase, distribute or maintain personal protective equipment for use in a confined space.
- 5.1.12. Could be involved in a rescue or first-aid procedure involving work in a confined space.
- 5.1.13. Are required to manage construction work, including high risk construction work.
- 5.2. The training should be relevant to the performance of the particular work and the worker's duties, and relate to the following:
  - 5.2.1. The nature of all hazards relating to confined spaces.
  - 5.2.2. The need for, and the appropriate use of, control measures to control risks to health and safety associated with those hazards.
  - 5.2.3. The selection, fit, use, wearing, testing, storage and maintenance of any personal protective equipment.
  - 5.2.4. The contents of any confined space entry permit that may be issued in relation to work carried out by the worker in a confined space.
  - 5.2.5. Emergency procedures.
- 5.3. A registered (and where relevant, approved) training organisation shall deliver legislatively mandated training.
- 5.4. The person issuing the confined space entry permit should make sure that the findings of the risk assessment and any safe operating procedure are explained to those persons involved in the activity and is signed by each person before any work commences.

## **6. RECORDS**

Records related to confined space management should be maintained. The list includes, but is not limited to:

- 6.1. Risk assessments.
- 6.2. Confined Space entry permit.
- 6.3. Notifiable incident reports.
- 6.4. Training records.
- 6.5. Confined space register.
- 6.6. Plant, equipment and PPE maintenance records.
- 6.7. Registration certification for relevant plant and equipment.
- 6.8. Records of atmospheric testing and monitoring.
- 6.9. Consultation with other PCBU's
- 6.10. Statutory notifications.

All records should be retained in line with the current version of GDS20.

## **7. RESPONSIBILITIES**

- 7.1. The *Senior Leadership Team* is accountable for:
  - 7.1.1. Capital expenditure for confined space management.
  - 7.1.2. Nominating a responsible person to manage confined spaces and making sure they are competent to undertake the task.
  - 7.1.3. Checking that a permit system is in place and operating according to this procedure.
  - 7.1.4. Checking the confined space register is maintained and all confined spaces are included on the register.
  - 7.1.5. Making sure that all required training for confined spaces is identified, implemented, managed and monitored.
  - 7.1.6. Setting objectives, targets and performance indicators for confined space management, if relevant.
  - 7.1.7. Making sure as far as is reasonably practicable, that the requirement to enter a confined space is eliminated.

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- 7.1.8. Making sure that all reasonably foreseeable hazards associated with confined spaces are identified, assessed and controlled when elimination is not practicable.
- 7.1.9. Making sure an emergency plan is in place which includes the first aid and rescue procedures to be followed in an emergency in a confined space and that the regular testing of those procedures occurs.
- 7.1.10. Monitoring the hazard register, incident and accident reports, enforcing close out of items and directing action as required.
- 7.1.11. Reviewing the effectiveness of the Confined Space Management Procedure within the management review process.
- 7.2. The *Works Coordinator* is accountable for:
  - 7.2.1. Maintaining the confined space register.
  - 7.2.2. Making sure training all required training for confined spaces is identified and delivered and the training register in relation to confined spaces is kept up to date.
  - 7.2.3. Initiating the development and the testing of the Council emergency plan for confined space activity.
  - 7.2.4. Maintaining legislative currency of procedures and systems in relation to confined spaces.
  - 7.2.5. Initiating audit and review activities as required.
- 7.3. The *Department Manager* is accountable for:
  - 7.3.1. Maintaining any confined space signage.
  - 7.3.2. Securing confined spaces against unauthorised entry.
  - 7.3.3. Checking that a risk assessment is developed and documented before any work which involves entry into a confined space is commenced for the first time.
  - 7.3.4. Reviewing and revising risk assessments when required.
  - 7.3.5. Implementing control measures for the safety of workers undertaking confined space work.
  - 7.3.6. Authorising those competent persons who are able to issue a confined space entry permit.
  - 7.3.7. Checking that workers required to undertake confined space work have been trained and assessed as competent, in accordance with legislative requirements.
  - 7.3.8. Checking that any person who works in a confined space is given information about the hazards that are present in the work location, prior to the work being undertaken.
  - 7.3.9. Checking that all plant and PPE used in confined space work is fit for purpose, inspected prior to use and maintained by competent persons, in accordance with legislative requirements.
  - 7.3.10. Checking that all equipment used in confined space entry is inspected, tested, calibrated and maintained in accordance with manufacturer's instructions and any legislative requirements.
  - 7.3.11. Undertaking inspections, to make sure compliance with this procedure.
  - 7.3.12. Checking that all workers working in a confined space have exited the space at the end of the task.
  - 7.3.13. Checking that hazards identified or incidents that occur when working in a confined space, are reported, investigated and control measures are implemented in accordance with The Flinders Ranges Council WHS Hazard Management Procedure.
  - 7.3.14. Implementing any corrective or preventative actions required for confined space work.
  - 7.3.15. Consult with other PCBU's, so far as is reasonably practicable, if their duty of care overlaps.

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- 7.4. The *Contract or Project Manager* is accountable for:
- 7.4.1. Managing the risks associated with construction work.
  - 7.4.2. Checking that a record is made in the Hazard Risk Register of construction activities, including high risk construction work.
  - 7.4.3. Checking that a SWMS that includes emergency response is developed and documented before high risk construction work is commenced.
  - 7.4.4. Making sure a copy of the SWMS is given to the principal contractor before the work commences, the SWMS is available for inspection and is made readily accessible to workers involved in the work.
  - 7.4.5. Making sure arrangements are in place to check that work is conducted in accordance with the SWMS and if this is not the case, making sure that the work:
    - a. Is immediately stopped or stopped as soon as it is safe to do so, and
    - b. Resumed only in accordance with the SWMS.
  - 7.4.6. Reviewing and revising SWMS when required.
  - 7.4.7. Making sure a copy of the SWMS is retained until the high risk construction work is completed, unless a notifiable incident occurs, in which case it should be kept for at least 2 years after the incident occurs.
  - 7.4.8. Checking that workers carrying out Council construction work can demonstrate completion of general construction induction training (eg white card).
  - 7.4.9. Consulting with other PCBUs, so far as is reasonably practicable, if their duty of care overlaps.
- 7.5. *Any person responsible for issuing a confined space entry permit* is accountable for:
- 7.5.1. Demonstrating confined space competency in accordance with legislative requirements.
  - 7.5.2. Making sure no person enters a confined space unless a competent person or persons are on stand-by outside the confined space.
  - 7.5.3. Making sure that entry to a confined space does not occur unless a risk assessment has been undertaken, a safe operating procedure or work instruction been developed and an entry permit has been issued, in accordance with this procedure.
  - 7.5.4. Making sure any plant, equipment, PPE or testing equipment is in good working order before work commences.
  - 7.5.5. Supervising any work undertaken in a confined space.
  - 7.5.6. Making sure that all persons have left the confined space at the end of the task.
  - 7.5.7. Making sure that all documentation is fully completed and records are retained, in accordance with this procedure.
- 7.6. *A standby person* is accountable for:
- 7.6.1. Demonstrating confined space competency in accordance with legislative requirements.
  - 7.6.2. Remaining outside the confined space and do no other work which may interfere with their primary role of monitoring the workers inside the space.
  - 7.6.3. Having all required rescue equipment (for example, safety harnesses, lifting equipment, a lifeline) immediately available.
  - 7.6.4. Ordering workers to exit the space if any hazardous situation arises.
  - 7.6.5. Never entering the space to attempt rescue.
- 7.7. *Any worker working in a confined space* is accountable for:
- 7.7.1. Demonstrating confined space competency in accordance with legislative requirements.
  - 7.7.2. Complying with the requirements of the risk assessment, confined space entry permit and all relevant WHS policies and procedures, information and instruction provided to them whilst undertaking their tasks.

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7.7.3. Taking reasonable care of their own health and safety and that their work does not adversely affect the health and safety of other persons.

7.8. *Health and Safety Representatives* may:

- 7.8.1. Facilitate consultation between department managers and workers in relation to confined space entry activity that affects the workgroup they represent.
- 7.8.2. Request and assist in the review and revision, where necessary, of risk control measures related to confined space entry.

## **8. REVIEW**

- 8.1. The Confined Space Management Procedure shall be reviewed by the WHS Committee, in consultation with workers or their representatives, every three (3) years or more frequently if legislation or The Flinders Ranges Council needs change. The review may include a review of:
  - 8.1.1. Legislative compliance issues.
  - 8.1.2. Audit findings relating to confined space management.
  - 8.1.3. Incident and hazard reports, claims costs and trends related to confined space management.
  - 8.1.4. Feedback from managers, workers or other stakeholders.
  - 8.1.5. Other relevant information.
- 8.2. Results of reviews may result in preventative and/or corrective actions being implemented and revision of this document.

## **9. REFERENCES**

Work Health and Safety Act 2012.  
 Work Health and Safety Regulations 2012.  
 General Disposal Schedule 20 for Local Government.  
 WorkCoverSA Performance Standards for Self-Insurers.

Code of Practice: Confined Spaces.  
 Code of Practice: How to Manage Work Health and Safety Risks.  
 Code of Practice: Managing Electrical Risks in the Workplace.  
 Code of Practice: Worker Representation and Participation Guide.  
 Code of Practice: Construction Work, July 2012  
 Australian Standard AS 1319: Safety Signs for the Occupational Environment.  
 Australian New Zealand Standard AS/NZS 1715: Selection, Use and Maintenance of Respiratory Protective Devices.  
 Australian Standard AS 2865: Safe Working in a Confined Space

## **10. RELATED DOCUMENTS**

WHS Hazard Management Procedure  
 Confined Space Risk Assessment Form  
 Contractor Management Procedure  
 Electrical Safety Procedure  
 Hot Work Procedure  
 Isolation and Lock Out Tag Out Procedure  
 Plant Procedure  
 Hazardous Chemicals Procedure  
 Prevention of Falls Procedure  
 Incident Reporting and Investigation Procedure  
 Confined Space Register  
 Hazard Risk Register  
 Corrective & Preventative Action (CAPA) Register

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## **11. DOCUMENT HISTORY:**

<b>Version No:</b>	<b>Issue Date:</b>	<b>Description of Change:</b>
1.0	Nov 2000	Adopted
2.0	March 2003	Unknown
3.0	Unknown	Unknown
4.0	May 2007	Unknown
5.0	July 2010	One System format
6.0	July 2014	Terminology changes to reflect 2012 WHS Act, Regulations and Codes of Practice. Examples of changes include; OHS to WHS and employee to worker where appropriate. Expansion of section 4.8 to include more detailed information on specific controls and emergency procedures, as required under the regulatory framework.

## **12. APPENDICES**

- Appendix 1: Confined space identification
- Appendix 2: Confined Space Entry Permit
- Appendix 3: Confined Spaces emergency considerations for inclusion into Council  
Emergency Plan and Confined Space risk assessment form
- Appendix 4: Summary of Procedures for Entry and Conduct of Tasks in a Confined Space
- Appendix 5: Confined Space Risk Assessment Form





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## APPENDIX 2: Confined Space Entry Permit

(Source: COP: Confined Spaces Dec 2011, pp.33-36)



# **CONFINED SPACE ENTRY PERMIT**

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## **GENERAL**

**Location of confined space**

**Description of work**

Name of any worker permitted to enter the space

## **CONTROL MEASURES**

### **ISOLATION**

<b>Confined space needs to be isolated from:</b>	<b>Location / method</b>
Water / gas / steam / chemicals	
Mechanical/electrical drives	
Auto fire extinguishing systems	
Hydraulic / electric / gas / power	
Sludge / deposits / wastes	

Locks and/or tags have been affixed to isolation points      Yes ☐ No ☐

### **ATMOSPHERE**

The atmosphere in the confined space has been tested:

<b>Results of tests:</b>	
Oxygen	%
Flammable gases	% LEL
	% LEL
Other gases	ppm (less than      ppm)
	ppm (less than      ppm)
Other airborne contaminants	

The conditions for entry are as marked below:

1. With supplied air breathing apparatus	Yes <input type="checkbox"/> No <input type="checkbox"/>
2. Without respiratory protection	Yes <input type="checkbox"/> No <input type="checkbox"/>
3. With escape unit	Yes <input type="checkbox"/> No <input type="checkbox"/>



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## **HOT WORK**

Area clear of all combustibles including atmosphere	Yes <input type="checkbox"/> No <input type="checkbox"/>
Type of appropriate fire prevention equipment available:	
Suitable access and exit	Yes <input type="checkbox"/> No <input type="checkbox"/>
Hot work is permitted	Yes <input type="checkbox"/> No <input type="checkbox"/>

## **PERSONAL PROTECTIVE EQUIPMENT**

The following safety equipment must be worn:	Type
Respiratory protection	
Harness/lifelines	
Eye protection	
Hand protection	
Footwear	
Protective clothing	
Hearing protectors	
Safety helmet	
Communication equipment	
Other	

## **OTHER PRECAUTIONS**

Warning notices/barricades?	Yes <input type="checkbox"/> No <input type="checkbox"/>
All persons have been trained?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is continual air monitoring required?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Other	

## **EMERGENCY RESPONSE**

Procedures / equipment	



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#### STANDBY PERSON

Standby personnel requirements:	

#### AUTHORITY TO ENTER

The control measures and precautions appropriate for the safe entry and execution of the work in the confined space have been implemented and persons required to work in the confined space have been advised of and understand the requirements of this written authority.

Signed ( <i>person in direct control</i> ):	
Date:	Time:
This written authority is valid until:	
Date:	Time:

#### PERSONS AUTHORISED TO ENTER CONFINED SPACE

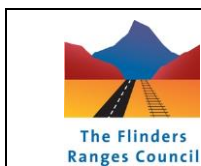
I have been advised of and understand the control measures and precautions to be observed with the entry and work in the confined space.

ENTRY			EXIT		
Name	Date	Time	Name	Date	Time

#### WITHDRAWAL OF WRITTEN AUTHORITY

All persons & equipment accounted for	Yes <input type="checkbox"/> No <input type="checkbox"/>
Equipment checked and stored correctly	Yes <input type="checkbox"/> No <input type="checkbox"/>
Signed ( <i>person in direct control</i> ):	
Date:	Time:
Remarks or comments about the work:	





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## **APPENDIX 3: Confined Spaces emergency considerations for inclusion into Council Emergency Plan and Confined Space risk assessment form**

### **Confined Spaces emergency considerations for inclusion into Council Emergency Plan**

Source : Code of Practice: Confined Spaces, Dec 2011, p..29-30

<b>Relevant considerations</b>	<b>Questions</b>
Location of the confined space	What is the geographic location of the space, how accessible is it in an emergency and how far away is it from appropriate medical facilities?
Communications	How can workers working inside the space communicate to people outside in an emergency? Exactly how will the alarm be raised and by whom? Planning needs to ensure that rescue and emergency personnel can access the workplace during night shift, weekends and holiday periods.
Rescue and resuscitation equipment	What kinds of emergencies are contemplated? The provision of suitable rescue and resuscitation equipment will depend on the potential emergencies identified. Selected rescue equipment should be kept in close proximity to the confined space so that it can be used immediately.
Capabilities of rescuers	Are rescuers properly trained, sufficiently fit to carry out their task and capable of using any equipment provided for rescue (e.g. breathing apparatus, lifelines and fire-fighting equipment)? How will rescuers be protected during the emergency operation?
First aid	Is appropriate first aid available for immediate use? Are trained first aid personnel available to make proper use of any necessary first aid equipment?
Local emergency services—if they are to be relied on for rescue	How will the local emergency services (e.g. fire brigade) be notified of an incident? What information about the particular dangers in the confined space will be given to them on their arrival? Have prior arrangements been made with local emergency services to ensure they are able to respond in a reasonable time and have the specialist confined space retrieval equipment readily available?

First aid and rescue procedures must be rehearsed with relevant workers to ensure that they are efficient and effective.

Rescue should be performed from outside the confined space, if possible. Workers performing rescue must be adequately trained. Rescuers must be provided with and wear appropriate respiratory protective equipment if they enter a confined space in an emergency.

If a person inside a confined space has been overcome by lack of oxygen or airborne contaminants, it should always be assumed that entry for rescue is unsafe unless air-supplied respiratory protective equipment is used.

Potential problems with the size of entrances and exits must be addressed when developing emergency and rescue procedures. Where openings are found to be inadequate, their size should be increased, or an alternative safe means of entry and exit should be provided.

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**APPENDIX 5:            Confined Space Risk Assessment Form**



# **CONFINED SPACE RISK ASSESSMENT**

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## **PART A – CONFINED SPACE SUMMARY**

<b>Confined Space Register reference:</b>		<b>Assessment Date:</b>			
<b>Confined Space Location:</b>		<b>Building :</b>			
<b>Initial Assessment</b>	<b>Revised Assessment</b>				
<div style="border: 1px solid black; width: 180px; height: 250px; margin: 0 auto; text-align: center; line-height: 250px;">                     INSERT PHOTO                 </div>		<b>RISK ASSESSMENT TEAM</b>			
		<b>POSITION</b>	<b>NAME</b>	<b>SIGNED</b>	<b>DATE</b>
<b>DEPARTMENT MANAGER:</b>					
<b>Name:</b>					
<b>Proposed Verification Date(s):</b>					
<b>Signed</b>	<b>Date</b>				
<b>WHS REPRESENTATIVE (HSR):</b>					
<b>Name</b>					
<b>Signed</b>		<b>Date</b>			

A	B	C	D			If the answer to A, B, C and at least one of D is yes, then the space is a confined space.
Is the space enclosed or partially enclosed	Is the space not designed or intended to be occupied by a person	Is the space designed or intended to be, at normal atmospheric pressure while any person is in the space	Does the space present a risk from:			
			Harmful airborne or flammable contaminants	An unsafe oxygen level	Engulfment	

# CONFINED SPACE RISK ASSESSMENT

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## PART B – HAZARD IDENTIFICATION: Refer to Section 4.4 of the Confined Space Management Procedure

Code	HAZARDS - record any identified hazards on the risk rating and action plan in part C	Yes	No	N/A
1.	Atmosphere monitoring - is testing or monitoring required?			
2.	Oxygen concentration in the atmosphere below 19.5%?			
3.	Oxygen enriched atmospheres, with oxygen concentration greater than 23.5% by volume?			
4.	Airborne contaminants, e.g. dust, fibres, lead or mercury fumes?			
5.	Atmosphere - presence of contaminants in the atmosphere or on surfaces?			
6.	Asbestos is present?			
7.	Breathing air- is there the potential for contamination of breathing air from operations or sources outside the confined space?			
8.	Continuous communication - inability to maintain between those in the confined space and the stand-by person(s), or other systems of work methods and controls provided for an equal or better safety outcome?			
9.	Continuous observation - inability to maintain between those in the confined space and the stand-by person(s), or other systems of work methods and controls provided for an equal or better safety outcome?			
10.	Engulfment from free-flowing solids stored in the confined space?			
11.	Entrapment from the operation of moving equipment eg augers, conveyer belts etc?			
12.	Entry and exit unsafe or unsafe surfaces?			
13.	Exposed live electrical conductors or other electrical hazards?			
14.	Flooding from an increase in the level of a liquid in the confined space			
15.	Hazardous chemicals?			
16.	Hazardous manual tasks?			
17.	Hot work – is it required to be carried out?			
18.	Inadequate lighting or visibility?			
19.	Low head room?			

Code	HAZARDS - record any identified hazards on the risk rating and action plan in part C	Yes	No	N/A
20.	Microbiological hazards i.e. sewerage?			
21.	Naked flames- do smoking and naked flames need to be prohibited within the confined space and adjacent areas?			
22.	Noise?			
23.	Openings obstructed by fittings or equipment that could impede rescue?			
24.	Personal Protective Equipment- is it available and adequate for the work being carried out?			
25.	Persons undertaking tasks are competent?			
26.	Persons – the number of person working in the confined space presents a hazard?			
27.	Persons – outside the confined space are adequate for equipment maintenance, communication, emergency response initiation?			
28.	Plant requiring lockout/Tagout?			
29.	Plant – does plant in adjacent areas require prohibition of movement?			
30.	Protruding objects in the confined space?			
31.	Physiological and psychological demands of the task present a risk?			
32.	Radiation?			
33.	Restricted entry and exit?			
34.	Steam?			
35.	Structural integrity – is the structural integrity confined space adequate for the work being carried out?			
36.	Task-related hazards created by a work team(s) in, on or near the confined space that may affect other work team(s) within the confined space?			
37.	Tasks conducted in the confined space, e.g. painting welding may produce toxic or flammable contaminants?			
38.	Temperature either high or low?			
39.	Other?			



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## PART C – RISK RATING & ACTION PLAN: Refer to Section 4.8 of the Confined Space Management Procedure

NB the examples contained in this risk assessment are for information purposes only. Examples sourced from the Australian Standard AS 2865: Confined Spaces 2009

Code	Atmospheric hazard or engulfment	Task related hazard	Associated risk	Risk Rating				Risk Controls	Residual Risk Rating
				E	H	M	L		
10		Safe entry and exit	Falling from height		X			<ul style="list-style-type: none"> <li>Erect barriers</li> <li>Provide safety harnesses and lifting devices</li> <li><b>Assess competency of persons in use of PPE</b></li> </ul>	M
4	Hydrogen sulphide gas		Poisoning	X				<ul style="list-style-type: none"> <li>Ventilate space</li> <li>Monitor atmosphere</li> <li>Assess competency of persons in use of monitoring equipment</li> <li>Assess competency of persons to wear respiratory protective devices</li> <li>Assign standby person</li> <li><b>Select communications equipment</b></li> </ul>	M
16		Inadequate lighting	Physical Injury			X		<ul style="list-style-type: none"> <li>Provide appropriate safe lighting</li> </ul>	L
19		Noise	Hearing impairment				X	<ul style="list-style-type: none"> <li>Provide hearing protection and train persons in its use.</li> </ul>	L
29		Physiological and psychological	Stress and/or physical exhaustion		X			<ul style="list-style-type: none"> <li>Assess and monitor persons</li> </ul>	M
28		Welding Fumes			X			<ul style="list-style-type: none"> <li>Provide fume extraction equipment</li> <li>Provide fire extinguishers</li> <li>Hot work permit</li> </ul>	M

**A safe operating procedure or work instruction should be developed for the task being undertaken in the confined space, in consultation with workers involved in the task (or if the risk assessment is generic, in consultation with workers likely to be involved in the task).**

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**PART D – EMERGENCY RESPONSE:** Refer to Section 4.8.5 and Appendix 3 of the Confined Space Management procedure

## **EMERGENCY PLAN**

Description of emergency process to be taken in an emergency  
eg will require emergency services – fire brigade, CFA, boom lift,  
mechanical ventilation etc

Description emergency equipment required for the confined space entry  
eg lifting equipment, torch, leather gloves

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## RISK RATING MATRIX

**Step 1:** Estimate the potential consequences, i.e. how severe the harm could be, if the event did occur, using the following classification table:

Level	Descriptor	Description
1	Insignificant	No injuries, low financial loss
2	Minor	First aid treatment, on- site release immediately contained, medium financial loss
3	Moderate	Medical treatment required, on site release contained with outside assistance, high financial loss
4	Major	Extensive injuries, loss of production capability, off site release with no detrimental effects, major financial loss.
5	Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss

**Step 3:** Identify the level of risk by locating where the selected measures for likelihood and consequence (harm) meet in the following table:

Likelihood	Consequences				
	Insignificant 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
A (Certain to occur)	H (High)	H	E (Extreme)	E	E
B (Very likely)	M (Medium)	H	H	E	E
C (Possible)	L (Low)	M	H	E	E
D (Unlikely)	L	L	M	H	E
E (Rare)	L	L	M	H	H

**Step 5:** Select controls in descending order from the Hierarchy of Control

- Eliminate:** remove the hazard completely
- Substitute:** replace a hazardous process/substance with one which is less hazardous
- Isolation:** remove the person from the hazardous environment or the hazardous environment from the person
- Engineering:** provide a physical barrier or other engineered modifications to manage the hazard
- Administrative:** establish policies, procedures & work practices, provide training
- Personal Protective Equipment:** use equipment that provides protection to all individual persons against the hazard

**Step 2:** Estimate the likelihood of harm occurring using the classification table listed below

Level	Descriptor	Description
A	Certain to occur	Is expected to occur in most circumstances
B	Very Likely	Will probably occur in most circumstances
C	Possible	Might occur occasionally
D	Unlikely	Could happen at some time
E	Rare	May happen only in exceptional circumstances

**Step 4:** Determine the risk rating and priority for action

E: extreme risk:	Operation of item or activity should not be allowed to continue until the risk level has been reduced <ul style="list-style-type: none"> <li>Will commonly be an unacceptable level of risk</li> <li>May include both short term and long term control measures</li> </ul>
H: high risk:	Reduce the risk rating ALARP (if possible) <ul style="list-style-type: none"> <li>Should only be an acceptable level of risk for 'Major' or 'Catastrophic' consequences</li> </ul>
M: medium risk:	Reduce the risk rating ALARP (if possible) <ul style="list-style-type: none"> <li>May be an acceptable level of risk</li> </ul>
L: low risk:	Reduce the risk rating ALARP (if possible) <ul style="list-style-type: none"> <li>Commonly is an acceptable level of risk</li> </ul>