

Business Procedure

Confined Space

Document Number – OHS-PROC-18

This document applies to the following sites:

All Sites	<input type="checkbox"/>		
Rockhampton Office	<input checked="" type="checkbox"/>	Brisbane Office	<input checked="" type="checkbox"/>
Barron Gorge Hydro PS	<input checked="" type="checkbox"/>	Kareeya Hydro PS	<input checked="" type="checkbox"/>
Koombooloomba Hydro PS	<input checked="" type="checkbox"/>	Swanbank PS	<input checked="" type="checkbox"/>
Wivenhoe Small Hydro PS	<input type="checkbox"/>	Stanwell PS	<input checked="" type="checkbox"/>
		Tarong Site	<input checked="" type="checkbox"/>
		Mica Creek PS	<input checked="" type="checkbox"/>
		Mackay Gas Turbine	<input checked="" type="checkbox"/>
		Meandu Mine	<input type="checkbox"/>

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1.0 Purpose

This Business Procedure describes Stanwell's minimum requirements for designing, classifying and working in or around confined spaces. It describes the systems and controls that are required to safely manage the risks associated with confined spaces.

This procedure applies to all situations where a person is entering or working in a confined space.

A confined space is an enclosed or partially enclosed space that:

- is not designed or intended primarily to be occupied by a person; and
- is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and
- is likely to be a risk to health and safety from:
 - an atmosphere that does not have a safe oxygen level; or
 - contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion; or
 - harmful concentrations of any airborne contaminants; or
 - engulfment.

2.0 Scope

This Business Procedure applies throughout Stanwell, all its sites and all activities under Stanwell's control. It applies to all Stanwell employees and contractors, including visitors to Stanwell workplaces.

3.0 Actions

Sites must make sure:

- the requirement for personnel to work in confined spaces is eliminated where reasonably practicable
- all confined space entry is planned
- all equipment used in confined space entry is fit for use
- personnel involved in confined space entry are trained, competent and authorised
- confined space entry is risk assessed to identify potential hazards and make sure suitable risk control measures are implemented.

Confined space risks must be controlled through the application of the hierarchy of controls to achieve the highest level of protection that is reasonably practicable in the circumstances.

3.1 Design

Sites must make sure that, where practicable, any plant or equipment installed on a Stanwell site has been designed and manufactured to eliminate the design of a confined space. Where this is not practicable, sites must make sure the need to enter into a confined space has been eliminated where reasonably practicable.

Where elimination is not practicable, sites must make sure that confined spaces are designed:

- with a safe means of access and egress, including for rescue personnel
- with appropriate signage
- to eliminate, or at least minimise the risks to personnel working in the space.

Safety in Design process must be followed during the design of any potential confined space, refer *Business Procedure: Safety in Design*.

3.2 Confined Space Classification and Declassification

Sites must make sure a competent person classifies and declassifies confined spaces, refer to *Tool: Confined Space Classification*.

To permanently or temporarily declassify a confined space, sites must make sure that a risk assessment determines that it no longer meets the confined space definition. For a confined space to be declassified as a non-confined space, it needs to have undergone sufficient changes in structure and use to eliminate all inherent hazards that define a confined space. Temporary control measures such as providing temporary ventilation or achieving a satisfactory pre-entry gas test will not cause a confined space to be declassified.

3.3 Confined Spaces Register

Sites must maintain a register of all classified and declassified confined spaces, refer to *Tool: Confined Space Register*.

3.4 Safe System of Work Requirements

The following must be applied in relation to confined spaces, sites must:

- manage health and safety risks associated with a confined space, including risks when entering, working in, on or near a confined space, as well as the risk of inadvertent entry
- make sure that a worker does not enter a confined space until all safe work requirements have been complied with
- establish emergency response procedures.

Sites must not allow any person to enter a confined space unless there is a written confined space permit authorised by a competent person. As a minimum, this permit must include the following:

- the specific confined space the permit is for
- the names of any person permitted to enter the space
- the permitted duration of work to be carried out
- the required risk controls based on the confined space classification risk assessment and the WMS.

Sites must make sure that:

- the permit is displayed at the entrance to the confined space
- when the work is completed, as part of the confined space close up process, a competent person signs an acknowledgement on the permit that the work has been completed and all people have left the space.

Sites must make sure that the confined space permit is reauthorized and approved for any re-entry into a confined space following suspension of work.

The permit must be kept until the work is completed, or if a notifiable incident occurs, for at least two years after the confined space work to which the permit relates is completed.

Refer to Business Procedure: Safe Systems of Work.

3.4.1 Emergency Response

Sites must:

- develop a written rescue plan for each confined space entry in accordance with *Business Procedure: Emergency Response Framework*. This plan must:
 - demonstrate how personnel can be rescued in a time frame appropriate to the hazards present
 - identify the emergency response capabilities to perform an efficient and effective rescue
 - be attached to the confined space entry permit
- make sure that openings for entry and exit are of sufficient size to allow emergency access, openings are not obstructed, and any plant, equipment and personal protective equipment (PPE) provided for emergency rescue or first aid are maintained, fit for use and ready to be deployed in the work area as required.

Specific requirements for emergency procedures and plans are detailed in *Business Procedure: Emergency Response Framework*.

3.4.2 Work Method Statement

Personnel must not enter a confined space unless a work method statement (WMS) has been developed and communicated.

As a minimum, the WMS must assess the risks associated with:

- isolating and reinstating the confined space
- all hazards listed in Tool: Confined Space Classification
- task-specific risks associated with the scope of work
- simultaneous operations, where applicable.

Confined space risks must be controlled through the application of the hierarchy of controls to achieve the highest level of protection that is reasonably practicable in the circumstances.

For specific details regarding WMSs, refer to *Business Procedure: HS Hazard Management*.

3.5 Work Environment Requirements

3.5.1 Atmospheric Testing and Monitoring

Personnel must not enter a confined space until a trained and competent person has tested the atmosphere. As a minimum, this testing:

- must include:
 - oxygen content
 - concentration of flammable airborne contaminants (i.e. lower explosive limit (LEL))
 - concentration of potentially harmful airborne contaminants
 - any other contaminants identified in the risk assessment
- must be representative of the entire atmosphere of the space
- must be performed with a calibrated, direct-reading instrument.

It is preferred that the space is tested from an external position (using items such as extension probes etc.). If it is necessary to enter the space to test remote regions, then air supplied respiratory equipment should be worn, where this is not practicable, sites must make sure that a risk assessment identifies the method by which the testing can be carried out safely.

Atmospheric tests must be repeated:

- at a frequency determined by the risk assessment and permit
- following any confined space evacuation.

Sites must record and maintain atmospheric tests, refer to *Business Standard: Document Control and Records Management*.

3.5.2 Ventilation

Confined spaces must be ventilated to provide and maintain safe oxygen levels for as long as anyone is in the confined space.

Sites must make sure that:

- the method and quantity of ventilation is appropriate to the space and the activities to be performed
- the ventilation air is not contaminated and controls are in place to prevent blockage of supply
- fans are used to prevent stagnant pockets in the space
- exhaust air from the space is directed to minimise further hazards.

3.5.3 Purging

Where a risk assessment identifies the potential for unacceptable levels of contaminants, sites must make sure confined spaces are purged before any person enters the space.

Purging must:

- be performed using either inert gas, steam or water
- not use any gas containing greater than 21 per cent oxygen volume
- be performed from outside the space wherever possible.

If purging is not practicable, sites must make sure that personnel working in the confined space wear suitable respiratory protective equipment until atmospheric testing and a risk assessment indicated that it is not required.

Purging operations must be conducted such that the structural integrity of the confined space is not compromised.

3.6 Safe Work Practice Requirements

3.6.1 Isolation

Personnel must not enter a confined space unless all potentially hazardous services or energy sources connected to the space have been isolated. As a minimum, this must include:

- inadvertent release of hazardous gases, liquids and solids
- inadvertent energising of any electrical equipment
- nucleonic measuring devices
- sources of noise and heat.

Static electricity must be discharged safely until the confined space can be confirmed free of flammable gas or material.

Physical isolations must not be removed until a competent person signs an acknowledgement on the permit that the work has been completed and all people have left the space.

3.6.2 Entry and Exit

Sites must make sure that there are procedures in place to indicate when any worker is in the confined space.

Sites must maintain records in accordance with Business Standard: Document Control and Records Management.

3.6.3 Signage

Sites must make sure that signs are erected in a clear and prominent location next to each entry into a confined space that identify the space and inform workers that they must not enter without a permit.

Signs must be erected:

- while work is being done in preparation for work in the space
- immediately before entry in to the space
- while the work is being carried out
- while the work is being completed.

Signage 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.

3.6.4 Supervision and Communication

Personnel must not enter a confined space unless:

- a trained, competent and dedicated standby person is assigned to continuously monitor the space
- a communication system has been established that enables communication between people inside and outside the confined space and to summon help in an emergency.

The standby person should preferably be in visual contact with the work team.

Standby personnel must never enter the confined space or leave the entry point while personnel are inside, even during an emergency.

3.7 Monitor and Review Work

Sites must monitor work in confined spaces to make sure personnel are working in accordance with the requirements of the WMS, this procedure and any permits relevant to the work. Refer to Business Procedure: the document that outlines how Stanwell reviews and monitors work.

3.8 Training and Competence Requirements

Sites must make sure that all personnel involved in confined space entry have been trained and assessed as competent in accordance with *Training Rationale Confined Spaces*. Sites must obtain and maintain evidence of training and competency, refer *Business Standard: Training and Competency*.

4.0 References (Including Information Services)

Source	Reference
Legislation	<ul style="list-style-type: none"> Qld Work Health and Safety Regulation 2011, Part 4.3 Qld Confined Spaces Code of Practice 2011
Business Standard	<ul style="list-style-type: none"> Training and Competency Document Control and Records Management
Business Procedures	<ul style="list-style-type: none"> Emergency Response Framework HS Hazard Management Safety in Design Safe Systems of Work
Stay Safe	<ul style="list-style-type: none"> Confined Space – OHS-PROC-18A
Tools	<ul style="list-style-type: none"> Confined Space Classification – T-2670 Confined Space Register

5.0 Definitions

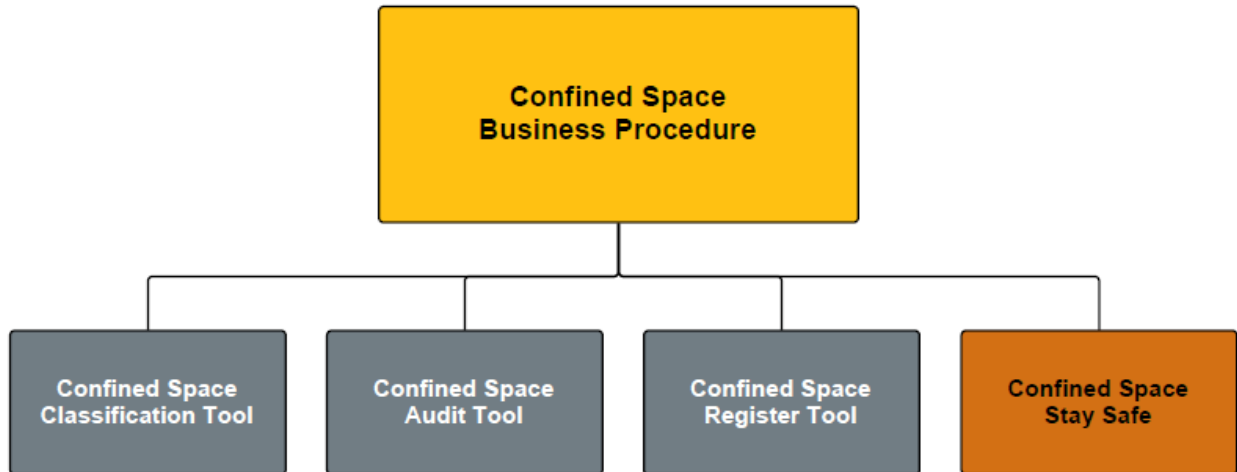
Term	Meaning
Confined Space Entry	Entry to a confined space is considered to have occurred when a person's head or upper body enters the space.
Contaminate	Any dust, fume, mist, vapour, biological matter, gas or other substance in liquid or solid form, the presence of which may be harmful to persons.
Flammable Airborne Contaminant	Any dust, fume, mist, vapour or gas present in the air at concentrations that can propagate a flame on contact with an ignition source.
Lower Explosive Limit (LEL)	The concentration of a flammable contaminant in air below which the propagation of a flame does not occur on contact with an ignition source.
Purging	The method used to displace any contaminant from a confined space.
Standby Person	A competent person assigned to remain on the outside of, and in close proximity to, the confined space capable of being in continuous communication with and, if practical, observing those inside. In addition, where necessary, the competent person may operate and monitor equipment for the safety of personnel in the confined space and initiate emergency response.

6.0 Revision History

Rev. No.	Rev. Date	Revision Description	Written by	Endorse/Check	Approved by
		Replaces all previous versions of OHS-PROC-18			
5	17.03.2014	Document written to reflect consolidated Stanwell Corporation process and requirements .	J. Paull	M. Joy	T. Hooper

7.0 Appendices

Appendix A Confined Space Document Flowchart



Appendix B Confined Space Definition Flowchart

