
Working in Confined Spaces Procedures

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1. Governing Policy

[Work Health and Safety Policy](#)

[Work Health and Safety Management System](#)

2. Purpose

The purpose of these procedures is to establish a system to manage the risks to health and safety associated with work in confined spaces, in accordance with legislative requirements and the University's [Work Health and Safety Policy](#).

3. Scope

- a. These procedures apply to all workers at workplaces owned, managed or controlled by Flinders University and any place where work is performed by a worker on behalf of the University.
- b. These procedures do not apply to work in confined spaces during field trips. Staff planning to undertake work in confined spaces during field trips must refer to the University's [Field Trip Guidelines](#) for the requirements for such work.

4. Definitions

Competent person	A person who has acquired through training, qualification and/or experience the knowledge and skills to carry out the required task.
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Confined space	<p>An enclosed or partially enclosed space that:</p> <ol style="list-style-type: none"> i. is not designed or intended primarily to be occupied by a person, and ii. is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space, and iii. is or is likely to be a risk to health and safety from: <ul style="list-style-type: none"> • 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 <p>— but does not include a mine shaft or the workings of a mine.</p> <p>Examples of confined spaces at the University include, but are not limited to:</p> <ul style="list-style-type: none"> • pipes and sewers • storm water manholes • chemical storage tanks • pressure vessels • boilers • lift pits • flues.
Confined space entry permit	A document which gives permission for entry into a confined space for the work to be undertaken.
Safe Work Method Statement (SWMS)	A written document that sets out the confined space work activities to be carried out, the hazards and risks arising from those activities and the measures to be put in place to control the risks.
Standby person	<p>A person who is assigned to:</p> <ol style="list-style-type: none"> i. continually monitor the wellbeing of those inside the confined space, and if practicable, observe the work being carried out, and ii. initiate appropriate emergency procedures when necessary.
Workers	University staff, contractors and sub-contractors and their employees, labour hire company employees, trainees, students gaining work experience and volunteers.
Workplace	A place where work, study or research is carried out for the University and includes any place where a worker goes, or is likely to be, while working, studying or undertaking research.

5. Confined space register

- a. The Property, Facilities and Development Division must:
 - i. identify all confined spaces at University workplaces, and
 - ii. maintain a Confined Spaces Register, including the following:
 - description and location of each space

- hazards associated with individual spaces, and
 - risk assessments for the hazards identified.
- b. The Confined Spaces Register must be updated as required with any addition, removal or change, and in any case, must be reviewed annually.

6. Signage and barricades

- a. The entry points to each confined space must be permanently signposted and secured to prevent unauthorised entry.
- b. Before any work in relation to a confined space starts, signs must be erected to prevent entry of persons not involved in the work.
- c. Signs must warn against entry by people other than those listed on the Confined Spaces Entry Permit and must be placed at each entrance to the confined space.
- d. 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.
- e. Before work in relation to a confined space starts, signs and robust physical barricades or barriers must be erected at each entrance to the confined space to prevent entry of persons not involved in the work.
- f. For the entire period the confined space entry permit is valid, procedures must be in place to indicate when any worker is in the space.

7. Confined space risk management

7.1. Identification of hazards

- a. Property, Facilities and Development must identify reasonably foreseeable hazards for each confined space that could cause harm to people. Such hazards may be:
- | | |
|---|--|
| i. Restricted entry or exit | ii. Noise |
| iii. Harmful airborne contaminants | iv. Skin contact with hazardous substances |
| v. Unsafe oxygen levels | vi. Radiation |
| vii. Fire and explosion | viii. Environmental hazards |
| ix. Engulfment | x. Electrical hazards |
| xi. Uncontrolled introduction of substances | xii. Physiological and psychological demands |
| xiii. Biological hazards | xiv. Hazards outside the confined space |
| xv. Mechanical hazards | xvi. Manual tasks |

7.2. Risk assessment

- a. The risk associated with each identified hazard must be assessed by a competent person in accordance with the University [WHS Risk Management Procedures](#) and must be recorded in writing as part of the job specific Safe Work Method Statement (SWMS).
- b. The risk assessment must take into account the nature of the confined space, the work that needs to be done, the range of methods by which the work could be done, emergency response procedures and the competence of the persons to undertake the work.

- c. A generic risk assessment may be carried out where the confined spaces, their hazards and the work to be performed are the same. A non-generic risk assessment must be carried out on an individual confined space if there is any likelihood that a worker may be exposed to greater, additional or different risks.
- d. Risk assessments and Safe Work Method Statements must be reviewed and revised by the competent worker who is entering the confined space and their supervisor, whenever there is a change in the work environment.
- e. A copy of the following must be kept:
 - i. risk Assessment must be kept for 28 days after the work which it relates to is complete.
 - ii. SWMS must be kept until the high-risk construction work it relates to is complete, or if a notifiable incident occurs in connection with the work, for 2 years after the incident occurs.

7.3. Risk Controls

- a. Any risk associated with working in a confined space should be eliminated if it is reasonably practicable to do so. Where possible, an attempt should be made to eliminate the need to enter the confined space altogether.
- b. If it is not reasonably practicable to eliminate the risk, the risk should be minimised so far as is reasonably practicable by using the hierarchy of controls as outlined in the University WHS Risk Management Procedure.
- c. If entering a confined space cannot be avoided, then a safe system for working inside the space must be developed, documented as part of a job-specific SWMS and implemented. The following matters must be considered:
 - i. the nature of the space
 - ii. the concentration of oxygen or airborne contaminants
 - iii. the work and work method
 - iv. emergency procedures.

8. Confined space entry permit

- a. No-one is permitted to enter or work in a confined space unless authorised to do so by a Confined Spaces Entry Permit issued by the University's Property, Facilities and Development Division.
- b. The Confined Space Entry Permit form must be completed by the person who is to undertake work in the confined space and must include documented evidence of competencies for the work to be undertaken (including for the stand-by).
- c. In addition, to obtain a permit a completed risk assessment of the confined space, a job-specific SWMS and the rescue procedures that will be implemented must be supplied.
- d. A Confined Space Entry Permit is also required when a person enters a confined space to conduct an initial hazard identification or risk assessment.
- e. The Confined Space Entry Permit must:
 - i. specify the confined space to which the permit relates
 - ii. record the names of persons permitted to enter the confined space and the period of time that the work will be carried out
 - iii. establishment of emergency process
 - iv. set out the risk control measures based on the SWMS, and
 - v. contain space for acknowledgement that work in the confined space has been completed and persons have left the space.
- f. The Confined Space Entry Permit must be authorised by a competent person who is nominated and authorised to issue such permits on behalf of the University.

- g. Each Permit only applies to one confined space and allows one or more workers to enter that space and is only valid for a 12-hour period.
- h. Permits must be kept until the work is completed, or if a notifiable incident occurs, for at least 2 years after the confined space work to which the permit relates is completed.

9. Isolation

- a. All potentially hazardous services, as determined by the hazard identification and risk assessment process, must be isolated before any person enters a confined space to prevent:
 - i. the introduction of services through piping, ducts, vents, drains, conveyors, service pipes and fire protection equipment
 - ii. the activation or energising of machinery in the confined space
 - iii. the activation of plant or services outside the confined space that could adversely affect the space
 - iv. the release of any stored or potential energy in plant, and/or
 - v. the inadvertent use of electrical equipment.
- b. The method of isolation should be determined on a case-by-case basis taking into account the hazards and types of services in the space.
- c. Isolation procedures as set out in the [Plant Safety Procedures](#) must be followed.

10. Atmosphere

- a. A safe atmosphere must be ensured, so far as is reasonably practicable, during work in a confined space. A safe atmosphere in a confined space is one that:
 - i. has a safe oxygen level
 - ii. is free of airborne contaminants or any airborne contaminants are in concentrations below their allowable exposure standard (if any)
 - iii. any flammable gas or vapour in the atmosphere is below 5% of its Lower Explosive Limit (LEL).
- b. Atmospheric testing and monitoring must be conducted by a competent person to determine appropriate control measures. Re-testing and continuous monitoring may be necessary if the risk assessment indicates that conditions may change due to the work being conducted.
- c. Where a flammable atmosphere may exist in the confined space and there is a risk of fire and explosion, all ignition sources in the vicinity must be eliminated.
- d. If it is not reasonably practicable to ensure that the confined space contains a safe level of oxygen or airborne contaminants, then appropriate respiratory protective equipment must be provided.
- e. Summary of conditions:

Criteria	Entry	Entry under special conditions	No Entry
Oxygen	21%	Below 21% with air supplied respiratory protection	More than 21%
Atmospheric contaminants	Below exposure standards	Above exposure standards with suitable personal protective equipment	Above exposure standards
Temperatures	No extreme temperatures		Extreme temperatures
Flammable contaminant	LEL below 5%	LEL between 5% - 10% with continuous monitoring flammable gas detector	Equal to or greater than 10% LEL

11. Standby person-communication and safety monitoring

- a. Before a worker enters a confined space, a standby person must be assigned to monitor continuously the wellbeing of those inside the space, if practical to observe the work being carried out and to initiate appropriate emergency procedures when necessary.
- b. There must be continuous communication with the worker from outside the confined space.
- c. The standby person must maintain a log of persons entering and leaving the confined space.

12. Information, instruction, and training

- a. Workers (including the stand-by person) receiving training are assessed as competent if they have received training in Confined Spaces via a Registered Training Organisation (RTO).
- b. Workers and their supervisors 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.
- c. All workers with work activities related to confined spaces must also be trained and assessed as competent to perform those activities as they relate to the specific confined spaces they will be entering.
- d. The training must cover:
 - i. the nature of all hazards associated with a confined space
 - ii. the need for, and appropriate use of, risk control measures
 - iii. the selection, use, fit, testing and storage of any personal protective equipment
 - iv. the required contents of any relevant confined space entry permit, and
 - v. emergency procedures.
- e. Re-training and refresher training must be provided at a frequency depending on how often workers are required to carry out tasks associated with entry to or work in confined spaces.
- f. Records of all training provided to workers in relation to confined space work must be kept for 2 years.

13. Emergency procedures

- a. First aid and rescue procedures to be followed in an emergency must be established and practiced with relevant workers to ensure they are efficient and effective.

Note: it is the responsibility of the personnel entering a confined space (regardless if they are Contractors) to ensure there are emergency rescue procedures in place and that these will be implemented by the stand-by person.
- b. Openings for entry and exit must be of sufficient size to allow emergency access, openings must not be obstructed and any plant, equipment and personal protective equipment provided for first aid or emergency rescue must be maintained, tested and in good working order.
- c. Workers performing rescue must be adequately trained and competent.
- d. If possible, the rescue should be performed from outside the confined space.
- e. Rescuers must be provided with and must wear appropriate respiratory protective equipment if they are entering a confined space in an emergency.

14. Responsibilities

Director, Property, Facilities and Development	a. Responsible for: <ul style="list-style-type: none">i. identifying confined spaces at all University premisesii. keeping an up-to-date register of all confined spacesiii. ensuring that all confined spaces are adequately signpostediv. ensuring that hazards associated with confined spaces have been identified, assessed and that appropriate controls are implementedv. ensuring that only competent workers are authorised to carry out work in confined spacesvi. issuing Confined Space Entry Permitsvii. provide information in regard to the confined space to the Permit receiver, including the location of space(s), the potential hazards associated with particular spaces and the requirement that only authorised and trained persons may enter a confined spaceviii. verifying that all conditions of entry outlined in the Permit have been satisfiedix. keeping records of all risk assessments, Entry Permits, Safe Work Methods Statement (SWMSs) and any relevant associated work permitsx. ensuring that confined spaces are secured at all times including when work is being carried out within space.
Flinders University staff engaging contractors	b. Responsible for: <ul style="list-style-type: none">i. providing the contractor with information about the known hazards associated with the identified confined spaceii. ensuring the contractors are competent to carry out the confined space work, including rescue and emergency procedures.iii. ensuring that contractors complete the required documentation for a Confined Space Entry Permitiv. provide access to confined space following authorisation to carry out the required work, andv. signing off on work undertaken and verifying that task has been completed, all workers have left the space, all equipment, plant and materials accounted for and the confined space has been secured.
Managers and supervisors	c. Responsible for: <ul style="list-style-type: none">i. implementing these procedures in their area of responsibilityii. understanding the work for which an entry permit has been sought and understanding isolation and tagging proceduresiii. ensuring that the person(s) doing the work is a competent person(s)iv. ensuring that all work in confined spaces is planned and documented, including the completion of risk assessmentsv. ensuring that staff who carry out work in, or associated with, confined spaces are provided with trainingvi. ensuring staff and contractors who are required to enter confined spaces are authorised by the Property, Facilities and Development Division to carry out such work, and

	vii. ensuring that a SWMS incorporating a risk assessment is completed and a permit to enter the confined space is authorised before the work starts.
Workers (including Contractors)	<p>d. Responsible for:</p> <ul style="list-style-type: none"> i. taking reasonable care for their own health and safety ii. ensuring that their work does not adversely affect the health and safety of other persons iii. not entering a confined space without an authorised University Confined Space Entry Permit iv. implementing specific control measures including communication and safety monitoring, signs, isolation of connected plant and services and controls to maintain a safe atmosphere in the controlled space v. complying with any reasonable instructions given relating to confined space entry permits, risk control measures and emergency procedures vi. carrying out work in a confined space in accordance with any relevant information and training provided to them, and vii. notifying the Permit authoriser and their supervisor of any situation which may pose a threat to the health and safety of persons involved in confined spaces work.
Standby Person	<p>e. Responsible for:</p> <ul style="list-style-type: none"> i. understanding the nature of the hazards inside the particular confined space and for being able to recognise signs and symptoms that workers in the confined space may experience ii. remaining outside the confined space during entry operations at all times or until relieved by another Standby Person iii. doing no other work which may interfere with their primary role of monitoring the worker(s) inside the space iv. continuously monitoring the wellbeing of those inside the space, and v. initiating appropriate emergency procedures when necessary.

15. Related documents

[Work Health and Safety Risk Management Procedure](#)

[Plant Safety Procedures](#)

Work Health and Safety Act (NT & SA)

Work Health and Safety Regulations (NT & SA)

Code of Practice – [Confined Spaces](#)

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