

Confined Space Procedure

Section 1 - Preamble

(1) This document outlines the Charles Darwin University ('CDU, 'the University) procedure for managing all work carried out in confined spaces on University property, and to ensure such work is carried out only by those who are deemed competent, who have access to, and who have authority to work in such spaces.

Section 2 - Purpose

(2) This procedure outlines the requirements for the management of and entry into confined spaces in the University's workplaces, with the intention of minimising or eliminating risks to people who enter and carry out work in those spaces.

(3) For the purpose of this procedure, entry (into a confined space) means where a person's head or upper body is in the confined space or within the boundary of the confined space.

(4) This is a compliance requirement under the:

- a. [Work Health and Safety \(National Uniform Legislation\) Act 2011 NT](#), and other relevant state equivalent legislation; and
- b. [Work Health and Safety \(National Uniform Legislation\) Regulations 2011](#) (Regulations 62 to 77) and other relevant state equivalent.

(5) This procedure should be considered in conjunction with the:

- a. [Model Code of Practice: Confined Spaces](#);
- b. AS 2865-2009: Confined Spaces;
- c. AS 1319-1994: Safety signs for the occupational environment;
- d. AS/NZS 1715: Selection, use and maintenance of respiratory protective devices;
- e. AS/NZS 1716: Respiratory Protective Devices; and the
- f. CDU [Hazard Identification, Risk Assessment and Control Procedure](#).

Section 3 - Scope

(6) This procedure applies to:

- a. all identified confined spaces;
- b. spaces not identified as confined spaces, but where there could still be risks to those working within them; and
- c. all persons deemed competent to and have the authority to enter and conduct activities in any such spaces.

Section 4 - Procedure

(7) Confined spaces pose dangers because they are usually not designed to be areas where people work. Confined spaces often have poor ventilation, allowing hazardous atmospheres to develop quickly, especially when the space is small. The hazards are not always obvious and may change from one entry into the confined space to the next.

(8) Confined spaces are commonly found in vats, tanks, pits, pipes, ducts, flues, chimneys, silos, containers, pressure vessels, underground sewers, wet or dry wells, shafts, trenches, tunnels or other similar enclosed or partially enclosed structures when these examples meet the definition of a confined space in the [Work Health and Safety \(National Uniform Legislation\) Regulations 2011](#) or other state equivalent.

Roles and Responsibilities

(9) Property and Facilities (PF) are responsible for:

- a. implementing this procedure in their area of responsibility and accountability;
- b. evaluating contractors' competency to work in confined spaces;
- c. ensuring relevant PF employees, contract supervisors, and authorised contractors carry out work in confined spaces in accordance with these procedures;
- d. identifying and registering confined spaces within all University workplaces; ensuring all confined spaces are adequately signposted; ensuring the University Confined Space Register is up to date;
- e. ensuring adequate resources are available to comply with the requirements of this procedure;
- f. ensuring confined spaces remain locked except where authorised work is being carried out;
- g. providing keys to enter confined spaces to relevant authorised persons to carry out work;
- h. keeping and maintaining confined space entry records of all risk assessments, written entry permits, and hot work permits for spaces under PF control for two years or longer if required; and
- i. maintaining all relevant documentation relating to confined spaces and restricted spaces under its control.

(10) Property and Facilities (PF) contract supervisors are responsible for:

- a. providing confined space entrance keys following authorisation to carry out required work;
- b. ensuring Contractor's Permit to Work is completed prior to work commencing, sign off on work undertaken, and checking that all University property, including access keys, has been returned following the completion of authorised work; and
- c. ensuring required entry permits and other documents are completed and signed that provide authority/permission for contractors to work in confined spaces as defined by the University.

(11) Authorised contractors are responsible for:

- a. providing the University with evidence that their staff, including sub-contractors, have completed the Nationally Accredited Training and competency assessment for working in confined spaces, including Atmospheric Testing Competency, prior to the commencement of work;
- b. ensuring a rescue plan is developed, rehearsed, and all required equipment is on site. Copies of these documents are to be forwarded to the relevant Campus Facilities Manager before the work is carried out;
- c. ensuring a risk assessment is completed and, where required, an entry permit and a hot work permit are completed prior to entry to a confined space, and that copies of these documents are forwarded to the relevant Campus Facilities Manager prior to the work being carried out;
- d. ensuring a written authority to carry out work is obtained from PF prior to carrying out the work;
- e. on completion of work, ensuring any confined space entrance is locked, and the key is returned to the relevant

Campus Facilities Manager; and

- f. communicating safety requirements and ensuring staff or subcontractors understand and comply.

(12) Line Managers and Supervisors involved with working in confined spaces and Property and Facilities are responsible for:

- a. implementing this procedure in their area of responsibility and accountability;
- b. ensuring all work in confined spaces is planned and documented;
- c. ensuring confined spaces are locked, except where authorised work is being carried out;
- d. ensuring all persons who carry out work in confined spaces are provided with training from an approved training provider;
- e. ensuring competent persons are inducted to the local area where they are required to operate;
- f. ensuring adequate resources are available to comply with the requirements of this procedure;
- g. ensuring contractors required to enter confined spaces are approved by PF to carry out such work;
- h. ensuring a risk assessment and permit to enter the confined space are completed and available prior to work being carried out;
- i. ensuring Contractor's Permit to Work is completed prior to work commencing;
- j. keeping and maintaining confined space entry records of all risk assessments, written entry permits, and hot work permits for two years or longer if required; and
- k. providing keys to enter confined spaces to relevant authorised persons to carry out work.

(13) All persons are responsible for:

- a. not placing themselves or others at risk of injury/illness;
- b. conforming to the requirements of this procedure;
- c. consulting with Line Managers/Supervisors and other staff in relation to risks associated with entry to confined spaces/restricted spaces; and
- d. not entering a confined space if you feel unsafe or unsure.

Training and Competency

(14) All persons with work activities related to confined spaces shall hold RIIWHS202E, or equivalent, or higher and must be deemed competent to perform those activities by their line manager or supervisor.

(15) Trained persons shall have their competency reassessed at least every two years. Line Managers or Supervisors may determine that a person's reassessment is done sooner if they have limited experience working in confined spaces. Where a competency cannot be demonstrated, retraining must occur until competency is achieved.

(16) The responsibility for ensuring the completion of risk assessments, safe work practices and the required written authority to work rests with the competent person who is to enter the confined space.

(17) Contractors who are registered with the Property and Facilities and have been included on their preferred contractors list must have had their competency to work in confined spaces evaluated as part of the registration process and/or during the relevant contract negotiation process.

Identification of Confined Spaces

(18) The [Confined Space Determination Flowchart](#) and [Confined Space Assessment Form](#) will guide the determination of whether a space is a 'confined space' in accordance with [Work Health and Safety \(National Uniform Legislation\) Regulations 2011](#) or other state equivalent. This form of assessment is only to be used to determine the likelihood of a

space being defined as confined when not included in the University's Confined Space Register.

Register of Confined Spaces

(19) A Register of Confined Spaces is to be maintained by Property and Facilities. The information contained in the register will include:

- a. location of the spaces;
- b. description of the spaces;
- c. hazards associated with individual spaces; and
- d. details of risk assessments associated with individual spaces.

(20) The register must be updated as required with any addition, alteration, removal or change of environment or change to legislative requirements.

Signage and Barriers

(21) Confined space entry points are to be permanently signposted and secured to prevent unauthorised entry. Keys must be held by the relevant PF employee or authorised manager for spaces not under PF's control, and only provided to those authorised to enter such spaces.

(22) As a minimum, all confined spaces signage will comply with AS 1319-1994 Safety Signs for the Occupational Environment and be conspicuously marked: 'Danger: Authorised Access Space – Authorised Entry Only'.

(23) Signs and barriers/exclusion zones must be:

- a. erected prior to commencing work in a confined space to prevent entry of unauthorised persons;
- b. placed at each entrance to the confined space and warn against entry by people other than those listed on the confined space entry permit; and
- c. 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.

(24) Signposting alone shall not be relied on to prevent unauthorised entry to a potential confined space. Security devices, for example, locks and fixed barriers, should be installed. (See [Confined Spaces Code of Practice](#).)

Risk Assessment

(25) A risk assessment shall be undertaken by a competent person/s before any associated work within any confined space is carried out.

(26) The risk assessment shall be in writing, using the University's [Safe Work Method Statement](#) (SWMS) and take into account at least the following:

- a. nature of hazards associated with the confined space, which may include:
 - i. atmospheric hazards;
 - ii. fire hazards;
 - iii. engulfment hazards; or
 - iv. task-related hazards
- b. work required to be done, including determining the need to enter the confined space;
- c. range of methods by which the work can be done;
- d. actual method selected, and the equipment proposed to be used;

- e. emergency response procedures; and
- f. competence, including the qualifications required of the persons to undertake the work.

(27) Any incidents involving work in confined spaces must be reported to the University's Work Health and Safety (WHS) team immediately, and an [Accident, Incident, Illness, and Injury Report](#) must be completed. Implemented risk control measures must be carefully reviewed, improved, extended or replaced as necessary to ensure ongoing effective risk control.

(28) A single (or generic) risk assessment may be carried out for a class of confined spaces, where the confined spaces are the same but located in various work areas. A separate risk assessment must be carried out for each confined space if the hazards, tasks, or circumstances differ, and a worker may be exposed to greater, additional, or different risks.

Written Authority

(29) Prior to commencement of work, a Confined Space Written Authority (Entry Permit) must be completed by the person in direct control of the required work prior to the work being carried out. Approval shall not be granted until:

- a. a completed risk assessment of the confined space has been provided;
- b. measures to control the identified risks have been established and implemented;
- c. the competency of those required to enter the space has been verified;
- d. appropriate confined space authority to enter has been completed;
- e. atmosphere has been tested;
- f. emergency procedures have been implemented; and
- g. a standby person has been provided.

(30) Stand-by Person means a competent person assigned to remain on the outside of, and near the confined space and is capable of being in continuous communication with and, if practical, to observe those inside. Where necessary, the competent person may initiate emergency response, operate and monitor equipment used to ensure safety during entry and work in the confined space.

(31) The Entry Permit must be displayed in a prominent place near the confined space, to facilitate signing in and out and clearance of the space. All persons entering and exiting the confined space must record their entry and exit on the permit. Prior to a written authority being cancelled, all tasks in the confined space shall cease, and all persons shall be removed from the space and the site secured.

Hot Work Permit

(32) A hot work permit must be obtained from PF and completed prior to any hot work being carried out in a confined space. Approval to carry out hot work in a confined space shall be obtained from the person in direct control of the associated work and workspace before work commencement. The hot work permit must:

- a. be displayed in a prominent place, usually adjacent to the confined space; and
- b. identify additional controls as required, such as ventilation systems, forced air welding masks, etc.

Alternating Entry and Standby Persons

(33) Where it is expected that the person entering the confined space and the standby person may change places, each is to be authorised to stand by while the other person is inside the confined space. The standby person must sign workers in and out of the confined space, ensuring only authorised personnel enter.

Isolation

(34) All potentially hazardous plant and services should be isolated prior to any person entering a confined space in accordance with AS 2865-2009: Confined Spaces. Isolate to prevent the:

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

Atmospheric testing and monitoring

(35) Atmospheric monitoring must be carried out to determine the airborne concentration of a substance or mixture at the workplace to which an exposure standard applies if:

- a. a risk assessment indicates the need for atmospheric monitoring;
- b. the person is not certain of the airborne concentration of the substance or mixture; or
- c. monitoring is necessary to determine whether there is a risk to health.

(36) Atmospheric testing and monitoring will be carried out by a competent person using a calibrated gas detector. No person shall enter a confined space to conduct atmospheric testing or monitoring without written authority.

(37) Results monitoring shall be recorded on the confined space entry permit. Initial testing should be conducted from outside the confined space by inserting a sample probe and/or a portable gas detector into appropriately selected access holes, nozzles, or openings. All testing should include oxygen concentration, concentration of flammable airborne contaminants and concentration of airborne contaminants.

(38) Prior to entry into a confined space, the atmosphere contained within it shall have:

- a. Safe oxygen range (i.e. the concentration of oxygen is between 19.5% and 23.5% by volume, under normal atmospheric conditions);
- b. Airborne contaminants that may cause impairment, loss of consciousness, or asphyxiation are reduced to below relevant exposure standards; and
- c. A concentration of flammable airborne contaminant below 5% Lower Explosive Limit (LEL). LEL means the concentration of a flammable contaminant in air below which the propagation of a flame does not occur on contact with an ignition source.

(39) The standby person is responsible for monitoring the internal atmosphere of the confined space every 30 minutes and recording the data.

Respiratory Protective Devices

(40) Where a hazardous atmosphere may exist despite application of the hierarchy of risk controls, no person shall enter the confined space unless they are equipped with air-supplied or self-contained breathing apparatus and, other personal protective equipment (PPE) as appropriate.

(41) The appropriate respiratory protective equipment should be based on the level and type of contaminants and the work to be done, and must conform to AS/NZS 1715: Selection, Use and Maintenance of Respiratory Protective

Rescue and First Aid Procedures

(42) Emergency response, first aid procedures and provisions shall be planned, established, regularly rehearsed, and implemented to ensure adequate responses to an emergency in a confined space. If emergency services personnel are required, they shall be made aware of the hazards and risks in the confined space prior to entry.

(43) Under no circumstances should the standby person attempt to enter the confined space unless properly trained and equipped to deal with an emergency, and there are other personnel outside the confined space to assist.

Documentation and Record Keeping

(44) All areas with control over confined spaces must maintain and retain the following documents for two years, or five years if a notifiable incident occurs:

- a. a register describing the location of all confined spaces;
- b. the risk assessments (SWMS) and the assigned risk control measures;
- c. procedures used for conducting tasks in or on confined spaces;
- d. training and competency records;
- e. confined space entry permits;
- f. hot work permits;
- g. atmospheric testing and monitoring records;
- h. inspection, calibration and maintenance of confined space safety equipment;
- i. inspections and audits of confined spaces; and
- j. reports and investigations related to incidents involving confined spaces.

Section 5 - Non-Compliance

(45) Non-compliance with Governance documents is considered a breach of the [Code of Conduct - Employees](#) or the [Code of Conduct - Students](#), as applicable, and is treated seriously by the University. Reports of concerns about non-compliance will be managed in accordance with the applicable disciplinary procedures outlined in the [Charles Darwin University and Union Enterprise Agreement 2025](#) and the [Code of Conduct - Students](#).

(46) Complaints may be raised in accordance with the [Complaints and Grievance Policy and Procedure - Employees](#) and [Complaints Policy - Students](#).

(47) All staff members have an individual responsibility to raise any suspicion, allegation or report of fraud or corruption in accordance with the [Fraud and Corruption Control Policy](#) and [Whistleblower Reporting \(Improper Conduct\) Procedure](#).

Status and Details

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Responsible Executive	Fiona Coulson Vice-Chancellor
Implementation Officer	Peta Preo Director People and Culture
Enquiries Contact	Leah Kenna Senior Manager Work Health and Safety Work Health and Safety

Glossary Terms and Definitions

"Risk assessment" - A systematic process of evaluating potential risks that may be involved in an activity. It is made up of three separate parts: risk identification, risk analysis, and risk evaluation.

"Audit" - A systematic and independent process for obtaining evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled.

"Risk" - The uncertainty associated with the delivery of the strategic goals of the University, which could result in either a positive or negative outcome.

"Competent person" - Competent person means a person who has acquired through training, qualification and experience, the knowledge and skills to carry out a specified task.

"University" - Charles Darwin University, a body corporate established under section 4 of the Charles Darwin University Act 2003. The University is comprised of the various faculties, CDU TAFE, organisational units, and formal committees, including the governing University Council and Academic Board.

"Governance document" - means policy or procedure published in the Governance Document Library. Policies and procedures are collectively called 'governance documents' and are often referred to as 'policy' or 'University policy'.

"Atmospheric monitoring" - Atmospheric monitoring means the continuous measurement of oxygen levels or selected atmospheric contaminants over an uninterrupted period.

"Atmospheric testing" - Atmospheric testing means the short-term measurement of the oxygen concentration and atmospheric contaminants which is not continuous.

"Confined space" - Confined space means 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 or 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, but does not include a mine shaft or the workings of a mine. Spaces that may meet the technical definition for a confined space include but are not

limited to: Storage tanks, process vessels, boilers, pressure vessels and other tank- like compartments. Pipes, sewers, shafts, tunnels, degreaser and sullage pits, ducts and similar structures.

"Hazardous atmosphere" - Hazardous atmosphere means any atmosphere where: Flammable gas, vapour or mist greater than 5% of its lower explosive limit (LEL) is present; Airborne combustible dust is present at a concentration greater than meets or exceeds its LEL; Oxygen concentration is less than 19.5% or greater than 23.5% by volume under normal atmospheric conditions; Any airborne contaminant is present that may expose a worker to above an acceptable dose or permissible workplace exposure standard (WES); and There is any condition recognised as an immediate threat to life or health.

"Hot work" - Hot work means welding, thermal or oxygen cutting, heating, grinding including fire-producing or spark-producing operations that may increase the risk of fire or explosion.