Confined Space Procedure

Section 1 - Introduction

(1) 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 So far as Reasonably Practicable (SFARP) to people who enter and carry out work in those spaces.

(2) This procedure applies to:

a. all identified confined spaces;
b. spaces that do not identify as confined spaces but where there could still be risks to those working within them (see definitions below); and
c. all persons deemed competent to and have authority to enter and conduct activities in any such spaces.

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

(4) 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 WHS Regulations.

Section 2 - Compliance

(5) This is a compliance requirement under the:

a. NT WHS Act (NUL) 2011 NT
b. WHS Regulations (NUL) 2011 (Regulations 62 to 77)
c. Occupational Health and Safety Act 2004 (Vic)
d. Occupational Safety and Health Act 1984 (WA)
e. Work Health and Safety Act 2011 (NSW)
f. Work Health and Safety Act 2011 (Qld)
g. Work Health and Safety Act 2012 (SA)
h. Code of Practice Confined Spaces 2018
i. AS 2865-2009: Confined Spaces
j. AS 1319-1994: Safety signs for the occupational environment
k. AS/NZS 1715: Selection, use and maintenance of respiratory protective devices
l. AS/NZS 1716: Respiratory Protective Devices
m. CDU Hazard and Risk Management Procedure

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Section 3 - Intent

(6) This document outlines the University's procedure for managing all work carried out in confined spaces on University properties; and that it is carried out by only those who are deemed competent, have access to and authority to work in such spaces.

Section 4 - Relevant Definitions

(7) In the context of this document:

a. Accident, Incident and Injury Report (AIIR) means the form that is used by University Staff to record and report all WHS accidents and incidents.
b. Airborne Contaminant means a contaminant in the form of a fume, mist, gas, vapour or dust, and includes microorganisms.
c. Atmospheric Monitoring means the continuous measurement of oxygen levels or selected atmospheric contaminants over an uninterrupted period.
d. Atmospheric Testing means the short-term measurement of the oxygen concentration and atmospheric contaminants which is not continuous.
e. Competent Person means a person who has acquired through training, qualification or experience, the knowledge and skills to carry out a specified task in relation to confined spaces.
f. Confined Space means an enclosed or partially enclosed space that:
    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:
        - 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.
    iv. 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.
g. Contaminant means any substance, e.g. dust, fume, mist, vapour, biological matter, gas or other substance in liquid or solid form that may be harmful to health and safety.
h. Contract Supervisor means the person nominated to administer a contract that involves work in a confined space or restricted space.
i. 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.
j. Lower Explosive Limit (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.
k. Hazardous Atmosphere means any atmosphere where:
    i. Flammable gas, vapour or mist greater than 5% of its LEL is present;
    ii. Airborne combustible dust is present at a concentration greater than meets or exceeds its LEL;
    iii. Oxygen concentration is less than 19.5% or greater than 23.5% by volume under normal atmospheric conditions;

iv. Any airborne contaminant is present that may expose a worker to above an acceptable dose or permissible workplace exposure standard (WES); and
v. There is any condition recognised as an immediate threat to life or health.

l. 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.
m. FM means University Facilities Management.
n. Restricted Space means a space which does not have confined space risks associated with it but where there are physical restrictions to perform work activities, such as:
i. Plant rooms
ii. Dumb waiters
iii. Cleaners rooms
iv. Switch rooms
v. Transformer rooms
vi. Electrical and communications risers.
o. Risk Assessment means a detailed statement of how work will be carried out in such a way as to either eliminate or minimise risks associated with working in confined spaces.
p. Safe Oxygen Range means a concentration of oxygen in the atmosphere having a minimum concentration of 19.5% by volume and a maximum of 23.5% by volume, under normal atmospheric conditions.
q. 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.
r. Written Authority (otherwise known as a Confined Space Entry permit) means a document that gives permission for entry into a confined space and the conduct of tasks associated with the confined space.

Section 5 - Procedure

Roles and Responsibilities

(8) FM 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 FM staff, FM Contract Supervisors and Authorised FM 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 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; and
h. Keeping and maintaining confined space entry records of all risk assessments, written entry permits, and hot work permits for spaces under FM control for two years or longer if required; and
i. Maintaining all relevant documentation relating to confined spaces and restricted spaces under its control.

(9) FM 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 have 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;

(10) Authorised FM 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 risk assessment is completed and where required an entry permit and a hot work permit is 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;
c. Ensuring a written authority to carry out work is obtained from FM prior to carrying out the work;
d. On completion of work, ensuring any confined space entrance is locked and the key is returned to the relevant Campus Facilities Manager; and
e. Communicating safety requirements and ensuring staff or subcontractors understand and comply.

(11) Non-FM Line Managers and Supervisors 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 FM to carry out such work;
h. Ensuring a risk assessment and permit to enter the confined space is 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.

(12) Lecturer/Workplace Assessor Training Confined Space are responsible for:

a. Implementing this procedure in their area of responsibility and accountability;
b. Ensuring training in confined spaces is planned and documented including the completion of risk assessments;
c. Ensuring confined spaces remain locked, except where authorised training is being carried out;
d. Ensuring students undergoing training in confined spaces are inducted to the local area, familiar with potential hazards, and remain supervised;
e. Ensuring adequate resources are available to comply with the requirements of this procedure;
f. Ensuring a risk assessment and a permit to enter the confined space is completed and available prior to training; and
g. Keeping and maintaining confined space entry records of all risk assessments and any training required work permits issued.

(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. DO NOT ENTER a confined space if you feel unsafe or unsure.

(14) Training and Competency

(15) All persons with work activities related to confined spaces shall be trained and deemed competent to perform those activities. The training must be that of an RTO accredited to deliver those specific units of competency and must include at least the following core training elements:

a. Legislative requirements;
b. Definition of confined space;
c. The hazards associated with confined space;
d. Risk assessment procedures;
e. Risk control measures;
f. Emergency procedures; and
g. The selection, use, fit and maintenance of safety equipment.

(16) Trained persons shall have their competency reassessed yearly. Where a competency cannot be demonstrated, retraining must occur until competency is achieved.

(17) Only competent persons shall undertake confined space entry and/or related standby duties. 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.

(18) Contractors who are registered with the FM 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

(19) The Flowchart at Appendix A and Confined Space Assessment Form at Appendix B will guide the determination of whether a space is a ‘confined space’ for the purposes of the NT WHS (NUL) Regulations 2011 or not. 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

(20) A Register of Confined Spaces is to be maintained by FM. 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.

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

Signage and Barriers

(22) Confined space entry points are to be permanently signposted and secured to prevent unauthorised entry. Keys must be held by the relevant FM or authorised non-FM manager for spaces not under FM control and only provided to those who are authorised for entry in such spaces.

(23) 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'.

(24) 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.

(25) 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 Code of Practice Confined Spaces 2018.)

Risk Assessment

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

(27) The risk assessment shall be in writing, using the University's Safe Work Procedure (SWP) 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
    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.

(28) Any incidents involving work in confined spaces must be reported to the University's Safety Emergency and Wellbeing (SEW) Team immediately and an AIIR must be completed. Implemented risk control measures must be carefully reviewed, improved, extended or replaced as necessary to ensure ongoing effective risk control.

(29) 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 a few different work areas. A separate risk assessment must be carried out on individual confined spaces if the hazards, tasks or circumstances are different and a worker may be exposed to greater, additional or different risks.

Written Authority

(30) Prior to commencement of work, approval to enter a confined space shall be obtained from the person in direct

control of the space and the associated work. 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.

(31) 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.

(32) 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

(33) A hot work permit must be obtained from FM 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;
b. Identify additional controls as required such as ventilation systems, forced air welding masks etc.

Alternating Entry and Standby Persons

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

Isolation

(35) All potentially hazardous plant and services should be isolated prior to any person entering a confined space. Refer to AS 2865–2009: Confined Spaces for further information on isolation requirements. 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 plan; and
e. Inadvertent use of electrical equipment.

Atmospheric testing and monitoring

(36) 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.

(37) 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 a written authority.

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

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

a. Safe oxygen range;
b. Airborne contaminants that may cause impairment, loss of consciousness, or asphyxiation reduced to below relevant exposure standards; and
c. A concentration of flammable airborne contaminant below 5% LEL.

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

Respiratory Protective Devices

(41) Where a hazardous atmosphere may exist despite application of the hierarchy of risk controls, no persons 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.

(42) 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 Devices and AS/NZS 1716: Respiratory Protective Devices.

Rescue and First Aid Procedures

(43) 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.

(44) 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

(45) All areas with control over confined spaces must maintained and retained the following:

a. A register describing the location of all confined spaces;
b. The risk assessments (SWP's) 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 in relation to incidents associated with confined spaces.

(46) Records of all Confined Space Entry risk assessments, permits, hot work permits, and records of atmospheric testing must be retained for two years.

(47) If a notifiable (to the regulator) incident occurs all associated documents must be retained for five years.

Section 6 - Non-Compliance

(48) Non-compliance with Governance Documents is considered a breach of the Code of Conduct – Staff 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.

(49) Complaints may be raised in accordance with the Complaints and Grievance Policy and Procedure - Employees and Complaints Policy - Students.

(50) 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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Implementation Officer	Karen Stoddard Deputy Director Organisational Capability and Inclusion
Enquiries Contact	Work Health and Safety