

Key Risk Area (KRA)

KRA 3.2 Confined Spaces

1. Purpose

This document provides practical guidance for entry into confined spaces and ensuring safe methods of work around and within confined spaces, so far as is reasonably practicable.

2. Scope

This Guideline applies to all health, safety and wellbeing activities of staff, students, visitors (including volunteers and contractors), Council members, and other persons interacting with the University of Newcastle (workers); the operations of staff of University aligned Research Centres and controlled entities; and all activities conducted by or on behalf of the University of Newcastle on and outside of the University's campuses.

3. Guidelines

3.1. Identification and Assessment

IFS is responsible for identifying the confined spaces at all University campuses by arranging for the following actions:

- Conducting a survey to develop a Confined Space Register which will record the location of the space, the type of space, the risk assessment and the appropriate risk controls;
- Arranging for all confined spaces to be identified with signage that complies with AS 1319-1994 Safety Signs for the Occupational Environment (Reconfirmed 2018);
- Physically restricting access to confined spaces wherever reasonably practicable.

When the confined spaces have been identified, IFS will ensure that a risk assessment is conducted by a competent person and recorded in writing for each space so that risk elimination or control measures can be determined, so far as is reasonably practicable, and in accordance with Guideline [HSG 3.1 Health and Safety Risk Management](#).

The assessment will take into account all relevant matters, including those listed in subregulation 66(4) of the Work Health and Safety Regulation 2017 (NSW) and risks relating

to the following hazards that can be associated with entry to and work inside confined spaces:

- Toxic, corrosive or hazardous contaminants: These may be present as residual material within the confined space, or as a result of materials taken into the confined space (e.g. paint containing toxic or flammable substances), or as a result of work undertaken in the confined space (e.g. welding);
- Fire or explosion;
- Lack of oxygen resulting from consumption as a result of work being undertaken within the confined space (e.g. use of flames), as a result of biological processes (e.g. bacteria in sludge) or displacement by other gases (e.g. purging with an inert gas) or chemical reactions (including oxidation and rusting);
- Engulfment and suffocation: By solids (for example, resin, powders) or liquids that are in or could enter the confined space during occupancy;
- Heat resulting from residual heat stored in the structure of the confined space, the work process undertaken in the confined space and the physical demands of the work or external environmental conditions;
- Electrical exposure from power circuits, capacitors and fittings, and inadequately protected or defective, lights and other electrical equipment;
- Moving equipment inside or outside the confined space which presents a risk of injury, including if inadvertently activated;
- Noise and vibration internal or external to the confined space;
- Manual handling may be made more difficult as a result of restricted or awkward movement during entry or within the confined space;
- Microbiological exposures may occur where organic materials have been or remain present in the confined space (e.g. waste pits).

3.2. Specific Risk Controls

IFS or the nominated representative will ensure that contractors conducting work in confined spaces have Safe Work Method Statements (SWMSs), Job Safety Analysis (JSAs) or Standard Operating Procedures (SOPs) specific for the work which have appropriate risk elimination or control measures, and which have been signed off by all workers who will be conducting the work. Refer to Guideline [HSG 6.1 Contractor Health and Safety Management](#) for details on further requirements.

Where it is not reasonably practicable to eliminate the need for any person to enter a confined space, or the risk of someone inadvertently doing so, the need or risk must be minimised so far as is reasonably practicable, and the space will be designed with a safe

means of entry and exit. Suitable and adequate information, training and instruction in relation to the confined space will be provided to relevant workers when required by the Work Health and Safety Regulation 2017 (NSW), records of which will be kept for two years. Refer to Guideline [HSG 4.2 Health, Safety and Wellbeing Induction, Training and Competency](#) for competency requirements.

Where it is not then reasonably practicable to eliminate the health and safety risks associated with entry to that confined space, so far as reasonably practicable, and risk controls directed at minimising associated risks so far as is reasonably practicable will be selected with reference to the hierarchy of control measures. Possible control measures could include:

- Before any work commences, the confined space will be withdrawn from operation so that it is made clear to all persons that it is off-line and will remain so until officially returned to operation;
- Clear signs and barriers will be erected in the immediate vicinity of the space to identify the confined space and exclude people who are not authorised to enter;
- IFS or the nominated representative will ensure all work in confined spaces is conducted under a Permit to Work. The Permit will be completed and signed by any relevant contractor and all Workers involved in the job. See the [IFS Permit to Work Procedure](#);
- Supply lines and equipment within the confined space or associated with the confined space will be isolated by lock out and tagging in accordance with [KRA 3.6 Electrical Safety and Energy Isolation](#);
- Workers must not enter a confined space until it is free from any hazardous atmospheres or until controls have been implemented to ensure that all persons are protected from exposure to harmful contaminants or unsafe oxygen levels by testing the atmosphere, purging with an inert gas if necessary and ventilating with a continuous stream of fresh air if required;
- Personal protective equipment (PPE) may include provision of airline supplied breathing apparatus or self-contained breathing apparatus if the atmosphere is oxygen deficient. Half face masks with appropriate cartridges or other P3 respirators may be required where the work generates dust or fumes;
- Additional risk controls may be required depending on the work that is to be conducted in the confined space, including in relation to the specific controls prescribed by the Work Health and Safety Regulation 2017 (NSW) e.g. issuing a Hot Work Permit for welding, grinding or other hot work; power tools to be used with Residual Current Device located outside the confined space.

3.3. Emergency Response

Confined space risk assessments will identify potential emergency situations that may occur during work in a confined space. A contractors' Safe Work Method Statement or Job Safety Analysis must include details on how an emergency situation will be managed and this will also be included in the Permit to Work. Emergency response will include:

- Procedures that can be initiated from outside the confined space as soon as practicable in an emergency. These procedures will be practised as necessary to ensure that they are efficient and effective;
- Ensuring that access can be gained in an emergency, and plant, equipment and PPE for first aid or emergency rescue will be maintained in good working order, consistent with the Work Health and Safety Regulation 2017 (NSW);
- A trained and competent stand-by person(s) will be provided for every entry into a confined space who will remain outside the space and in continuous communication with the Workers within the space, and who is able to respond to any emergency situation that may occur;
- The stand-by person(s) will be required to monitor the conditions in the confined space (including, if practicable, by observing the work being carried out) and has the authority to order the Workers in the space to exit immediately if any hazardous situation is identified and to prevent them from entering a confined space where a potentially hazardous atmosphere exists;
- Where there is a risk of falling during the work and also where rescue may be required by vertical or horizontal route, all Workers in the confined space will wear safety belts, harnesses and safety lines. See also UON KRA 3.1 Working at Height for additional considerations;
- Fire protection equipment such as fire extinguishers will be provided when there is a risk of fire e.g. during hot work;
- First aid personnel will be made available to provide first response treatment if necessary, including cardio-pulmonary resuscitation. This will include the stand-by person(s).

3.4. Return of the Confined Space to Operation

IFS or the nominated representative will ensure the person in charge of the confined space has completed the work, all workers have left the confined space and the Permit to Work has been satisfactorily signed off by a competent person before allowing the confined space back to normal operation.

4. Definitions

In the context of the Health and Safety Management System Framework:

Competent Person	A person who has, through training, qualification or experience, acquired the knowledge and skills to carry out a specified task.
Confined Space	<p>An enclosed or partially enclosed space which is not designed or intended primarily for human occupancy, which is (or is designed or intended to be) at normal atmospheric pressure while a person is in the space, and in relation to which there is a risk to health and safety from one or more of the following:</p> <ul style="list-style-type: none"> (a) An atmosphere that does not have a safe oxygen level; (b) A harmful concentration of any airborne contaminants; (c) A contaminant, including airborne gases, vapours and dust, that may cause injury from fire or explosion; (d) Engulfment. <p>Examples include, storage tanks, process vessels, boilers, pressure vessels, silos, tank-like compartments, pipes, sewers, degreaser and sullage pits, ducts, but will not include a mine shaft or the workings of a mine.</p>
Contaminant	Any substance, including a dust, fume, mist, vapour, gas or other substance in liquid or solid form, which may be harmful to health and safety.
Employer	Means the University of Newcastle (the University).
Executive Committee	Consisting of the Vice-Chancellor, the Deputy Vice-Chancellors, the Pro Vice-Chancellors, the Chief Operating Officer, Chief People and Culture Officer and the Chief Financial Officer, the University Secretary and the President of Academic Senate.
Leader / Supervisor	Any member of the University who is responsible for supervising staff and/or undergraduate or postgraduate students and/or for leading research projects.
Worker	<p>Includes an employee, conjoint, student on work experience, contractor, sub-contractor, and volunteer. A person is a worker if the person carries out work in any capacity for the University or another person conducting a business or undertaking, including work as:</p> <ul style="list-style-type: none"> (a) an employee, or (b) a contractor or subcontractor, or (c) an employee of a contractor or subcontractor, or (d) an employee of a labour hire company who has been assigned to work in the person's business or undertaking, or (e) an outworker, or (f) an apprentice or trainee, or (g) a student gaining work experience, or (h) a volunteer, or (i) a person of a prescribed class.

5. Responsibilities

A comprehensive list of health, safety and wellbeing responsibilities is provided in [HSG 1.2 Roles and Responsibilities Guideline](#).

Specific responsibilities under this Guideline include:

Infrastructure and Facility Services (IFS)

- Identify confined spaces on all University campuses and enter them in a Confined Space Register;
- Ensure confined space entry is conducted in accordance with this procedure and the requirements of the Work Health and Safety Regulation 2017 (NSW);
- Ensure that contractors who are engaged to conduct work in confined spaces have the appropriate procedures and equipment to undertake the work;
- Ensure that the contractor's workers are trained and competent to enter confined spaces, including the stand-by person;
- Ensure that entry into confined spaces is conducted under a Permit to Work issued by IFS or a nominated representative;
- Provide information to affected locations where confined space entry is to take place to ensure the necessary actions are taken to protect Workers, students, and any other person in the area, so far as is reasonably practicable.

Leaders and Supervisors

- Ensure that risk elimination and control measures are followed when they are implemented to protect workers, contractors and any other persons when work in or around confined spaces is to be conducted, so far as is reasonably practicable.

Health, Safety and Wellbeing Team

- Provide professional input regarding confined space activities when required; and
- Support IFS in risk assessment and review of confined space activities.

6. References & Related Documents

The following documentation is referenced in, or applicable to this Guideline:

[HSG 1.2 Roles and Responsibilities](#)

[HSG 3.1 Health and Safety Risk Management](#)

[HSG 4.2 Health, Safety and Wellbeing Induction, Training and Competency](#)

[HSG 6.1 Contractor Health and Safety Management](#)

[KRA 3.6 Electrical Safety and Energy Isolation](#)

[NSW Code of Practice – Confined Spaces](#)

7. Amendment History

Version	Date of Issue	Approval	Section(s) Modified	Details of Amendment
1	September 2015	Director, People and Workforce Strategy	-	Original version KRA 3.2 Confined Spaces Entry
2	October 2023	CPCO	All	1. All sections reviewed for legal compliance 2. Updated title to KRA 3.2 Confined Spaces. Updated content in all sections to reflect new title 3. Added new/renamed Related Documents 4. Added Amendment History 5. Amended document control header and footer

8. Appendices

Nil