Confined Spaces Procedures

1. Preamble

1.1 The University of Western Sydney, recognises that working in confined spaces involves managing a unique range of occupational risks which are not normally associated with other types of work. Therefore the University undertakes to adhere to the *NSW Occupational Health and Safety regulation 2001* and adopt the precautions set out in Australian Standard 2865-1986 "Safe Working in a Confined Space" when entry into a designated confined space is required.

2. Legislation

(i) New South Wales Occupational Health and Safety (Confined Space) Regulation 1990.

(ii) Australian Standard AS 2865-1986 "Safe Working in a Confined Space."

(iii) The Confined Spaces Regulation supplements the Occupational Health and Safety Act 2000.

(iv) The Regulation sets out minimum standards to ensure the safety of persons working in a confined space.

3. Definition

3.1 A confined space can be defined as any place of work where the atmosphere is at any time, liable to be contaminated by dust, fumes, mist, vapours, gas or other harmful substance, or is liable at any time to be oxygen deficient. Typically confined spaces can include, but not limited to, storage tanks, process vessels, boilers, silos, storage bins, pits, pipes, sewers, tunnels and shafts and any other tank like compartments usually having a manhole entry.

4. Aims

4.1 When work is to be undertaken in a confined space the University will strictly adhere to the requirements and procedures set down in Australian Standard AS 2865-1986 "Safe Working in a Confined Space". The Occupational Health, Safety and Risk Unit will provide a copy of the Standard to all persons who are responsible for issuing a

Confined Space Entry Permit and maintaining a Confined Space Register. Only authorized persons will be allowed to issue a Confined Space Entry Permit.

5. Responsibility

5.1 **Senior Managers** (in their area of control) are responsible for ensuring:

(i) The Confined Space Register (Attachment 1) is completed, and forwarding a copy to the OHS&R Coordinator.

(ii) Areas deemed as Confined Space are assessed to identify hazards associated with work in those Confined Spaces (Attachment 2).

(iii) A review of the Risk Assessment is undertaken to ensure appropriate controls are in place.

(iv) Customised documented Confined Space Entry Permits are developed.

(v) An adequate number of **competent persons** are available to carry out Confined Space work.

(vi) Contractors who are engaged to carry out Confined Space work are competent, have developed procedures and use an entry permit at least equal to that of the University.

5.2 **Line Managers** (in their area of control) are responsible for:

(i) Ensuring a risk assessment has been completed prior to the commencement of work in a confined space.

(ii) Issuing Confined Space Entry Permits.

(iii) Ensuring compliance with Confined Space Entry Permits.

(iv) Retaining on file all Confined Space Entry Permits.

5.3 **Competent Persons** including **Contractors** are responsible for:

(i) Complying at all times with the Confined Space procedure.

(ii) Notifying their immediate Supervisor of any situation they believe poses a threat to the health and safety of persons involved in Confined Spaces work.

5.4 The **OH&S Co-ordinator** is responsible for

(i) Maintaining a copy of the Confined Space Register.

(ii) Reviewing the Risk Assessment and providing technical advice as required.

(iii) Co-ordinating training programs.

6. Procedure

(i) In order to identify confined spaces and the hazards associated with working in those confined spaces an audit is to be undertaken throughout the University.

(ii) The initial audit is to be conducted in consultation with the OHS&R Co-ordinator.

(iii) Information collected via the audit is to be recorded on the Confined Space Register (Attachment 1). A completed copy of which must be forwarded to the OHS&R Coordinator.

(iv) Due to the risks associated with working in a confined space where possible work should be undertaken from outside the Confined Space. Where this is not possible the Confined Space Entry Procedure **MUST** be complied with at all times.

(v) Following the audit a Risk Assessment (Attachment 2) is to be undertaken for all identified Confined Spaces.

(vi) All Confined Spaces are to be sign posted **DANGER CONFINED SPACE DO NOT ENTER WITHOUT AUTHORISATION**.

(vii) **Trained** and **competent personnel** only are permitted to carry out work in a confined space.

(viii) Documented Confined Space Entry Permits are to be developed for each identified Confined Space (Attachment 3).

(ix) Written approval from a **Competent Person** must be obtained prior to any proposed work being undertaken in a Confined Space.

(x) Under **NO CIRCUMSTANCES** is any person be they an **employee** or **contractor** permitted to enter a Confined Space prior to all aspects of the Confined Space Entry Procedure being completed.

(xi) To minimise the risks associated with Confined Space work practices, all new and modified "Confined Space" will be assessed for potential risks at the conceptual and design stage as well as prior to commissioning. The risk reduction strategies are to be assessed in accordance with relevant:

- (a) Legislation
- (b) Codes of Practice
- (c) Australian Standard (s)
- (d) Industry Standard(s)

7. Training

7.1 Only persons with appropriate training shall be employed in confined space work. Training of selected persons to carry out confined space work shall include:

(i) Risk identification, assessment and control of confined space activities.
(ii) Emergency entry and exit procedures.
(iii) Use of respiratory protective equipment.
(iv) First Aid, including Cardio-pulmonary Resuscitation (CPR).
(v) Lockout/isolation procedures.
(vi) The use of safety equipment.
(vii) Rescue Drills.
(viii) Fire Protection.
(ix) Communications.
(x) Aspects essential for maintaining the safety of the breathing environment.

8. Risk Assessment

8.1 Work involving entry to a confined space must be planned. A risk assessment of the likely hazards is to be made prior to commencement of work. The assessment is to include the processes of identification, hazard assessment and risk control. precautions must be taken to avoid exposure to harmful substances or oxygen deficient atmospheres. Thought must also be given to the handling of emergency situations.

9. Authority to Enter a Confined Space

9.1 Overall authority to enter a confined space is vested in the person responsible for the project/task before work is commenced. This authority extends to those in control of University employees, (i.e. maintenance and ground staff) and for persons in control of external contractors undertaking the tasks.

Confined Space Register

Attachment 1

Location of Confined Space	Potential Hazard (eg Physical, Chemical, Electrical, etc.)	Reason for Entry to Confined Space	Design Changes Available to Eliminate Entry ☐ Yes ☐ No

Risk Assessment

Attachment 2

Due to the diverse nature of Confined Spaces and the variety of work that may be undertaken in a confined space, the following criteria, whilst not exhaustive, should be used as a basis to assist in identifying the risks associated with Confined Space work.

Risk Factor	**Control Strategy Please List**
o The soundness and security of the overall structure and need for illumination and visibility. o Identify nature of substances last contained in the Confined Space o Likely hazards (ie chemical, physical energy sources) o Documented instruction in work procedures, the use of protective equipment and the use of mechanical equipment. o Likely changes to the condition of the Confined Space due to work to be undertaken. o Signposting and barricading at the entry point to the Confined Space o Requirements for rescue established and arrangements made taking into account: • Obstacles within the Confined Space • The number of person(s) to be working in the Confined Space at any one time • The number of stand-by persons required outside the • Confined Space to maintain equipment being used, ensure adequate observation and communication to initiate rescue procedures ***Note:*** A minimum of three people should remain at the opening whilst a person is working in the confined space. At least two of these stand-by persons should be qualified first aid personnel, with the third person being the Competent Person. One stand-by person must remain continuous observation of the person in the confined space. In the event that rescue of the person from the confined space is required, the Competent	

Person is to immediately phone for an ambulance. Simultaneously rescue along with resuscitation if required is to be undertaken by the two stand-by persons.

- Pipeline vessels are labeled in accordance with AS1319

- All power, material supply and services to the Confined Spaces identified
- Isolation procedures for all energy sources developed
- Cleaning method(s)
- Rescue equipment complies with AS2626
- Duration of work in Confined Space (maximum single working period for anyone thirty (30) minutes)
- Duration of work break from Confined Space (minimum break twenty (20) minutes
- Method for bringing Confined Space to atmospheric pressure
- Personnel
  - Level of Fitness
  - Level of Training

Additional Protective Measures

- Prohibition of hot work adjacent to access
- Prohibition of smoking, naked flame within Confined Space or adjacent area.
- Avoidance of contamination of breathing atmosphere from operations of sources outside Confined Space (ie exhaust from internal combustion engine etc.).
- Prohibition of movement of equipment in adjacent access.
- Prohibition of spark generating equipment clothing and footwear.
- Confined Space Entry Permit developed

Confined Space Entry Permit (Sample Only)	**Attachment 3**

1 Location of work

Employees assigned
Authorised to Enter
Authorised Stand-by Persons

Outside Contractors

First Aiders Assigned

2 Description of Work to be undertaken

Initiator of Request

Date and Time

Authorisation Approved

Competent Person

Entry Date and Time

The whole of the remaining detail of this permit must be authorised before work is to proceed and only work listed may be done.

3 Isolation of Confined Spaces The items ticked have been isolated	☐Battery Units ☐ Pipelines ☐ Mechanical/Electrical drives ☐ Sludges/Deposits/Waste ☐ Harmful materials ☐ Hydraulics ☐ Electrical services ☐ Pneumatics ☐ Warning notices and tags have been fixed to means of isolation Competent Person .....

4 Atmospheric Test Requirements

Oxy - Oxygen Exp. - Flammable Substance Tox. Toxic Substance Continuous monitoring of the atmosphere is/is not required (Delete as appropriate) Alarm Ventilation Re Test/Alarm

	Alarm		Ventilation		Re Test/Alarm	
Pre – entry Test	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Oxy Low	☐	☐	☐	☐	☐	☐
Oxy High	☐	☐	☐	☐	☐	☐
Exp	☐	☐	☐	☐	☐	☐
Tox	☐	☐	☐	☐	☐	☐

Remarks …….

	Alarm		Ventilation		Re Test/Alarm	
Continuous Monitoring	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**
Oxy Low	☐	☐	☐	☐	☐	☐
Oxy High	☐	☐	☐	☐	☐	☐
Exp	☐	☐	☐	☐	☐	☐
Tox	☐	☐	☐	☐	☐	☐

Remarks …….

The conditions are safe for entry under the conditions ticked:

- ☐ With a supplied-air respiratory protective device
- ☐ With an air purifying (non air supplied) respiratory protective device
- ☐ Without a respiratory protective device

Testing Time
Date
Competent Person

5 Personal Protective Equipment

The following personal protective equipment ticked below shall be worn

- ☐ Supplied-air respirators
- ☐ Safety belt, harness and safety line or lifeline/rescue line
- ☐ Eye protectors
- ☐ Hand protection
- ☐ Feet protection
- ☐ Protective clothing
- ☐ Hearing protection
- ☐ Safety helmets

Competent Person

6 Use of Chemical Agents (detail to be completed)	No chemical agents other than those listed below may be taken into the confined space ....
7 Stand By Personnel and Rescue Arrangements	Stand-by Persons are: .... (identify - must include two first aiders) ☐ Rescue and emergency procedures are understood and have been posted

Competent Person

8 Other Precautions	Precautions ticked below have been implemented: ☐ Warning notices/barricades are in position ☐ Special precautions (indicate).....

Competent Person

9 Authorisation (to be completed)	The confined space described above is in my opinion a safe condition for the work to be done, providing that the precautions above are fully observed.

Competent Person

Time

Valid Until

1 Date Time

I/we understand the procedures required for entry and work in the confined space and the protective measures and equipment to be used

Signed..... Date..... Time.....

10 Signing Out	All persons have left the confined spaces and further entry will not be permitted unless a new entry permit is signed Competent Person

11 Work Completed / Suspended	All persons/equipment have been withdrawn, the work has been completed and any plant/machinery is/is not fit for use (Delete as appropriate). The following observation(s) of unsatisfactory aspects of the operation in the confined space are noted for attention prior to undertaking similar operations (attach separate sheet if necessary) .... Competent Person
12 Acceptance of Completed Job	I accept the work as defined in Section 2 of this permit has been completed. ..... Competent Person