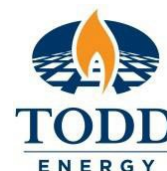


PTW Safety Checklist No. 45



WORK INSIDE ANY CONFINED SPACE.

Other Checklists that may be relevant:		
Permit Number:		Date:
Rev 5.0	Issue Date: 31/08/2022	Authorised By: PSM

Confined Space entry is one of the most high-risk activities undertaken.

Link to [Todd CSE Rescue Plan Template.dotx](#)

PREPARATION – PLANNING PRIOR to PERMIT ISSUE

- | | | Y | N | N/A |
|---|--|--------------------------|--------------------------|-----|
| 1 | Can the task be completed by alternative method that eliminates the need for personnel entry into a Confined space? | <input type="checkbox"/> | <input type="checkbox"/> | |
| 2 | Can the need for confined space entry be minimized using technologies such as remote cleaning and remotely operated vehicles for inspections i.e., remote cameras, drones etc. | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3 | Is the entry timing critical now? | <input type="checkbox"/> | <input type="checkbox"/> | |
| | Could the entry into the confined space be delayed to a more suitable timing e.g., future planned shutdown? | | | |

- 4 Is the area a Confined space as defined in Flowchart 1 and AS 2865-2009?
- Using the Flowchart 1: below, highlight or circle question(s) that defines the space as a Confined space entry.

For additional guidance see WorkSafe Guidance document link <https://www.worksafe.govt.nz/topic-and-industry/planning-entry-and-working-safely-in-a-confined-space/>

Flowchart 1: Define a Confined Space

Confined Space Decision Tree Question Set			
Is the space an enclosed or partially enclosed space? i.e. Tank, vessel, structure, cellar, excavation, pit, sump, trench, duct, or similar space	Yes →	Is this space intended for or been designed primarily for other than human occupancy? i.e. has no reasonable (doorway) access / egress points fitted to allow unimpeded human entry/exit	
		NO YES	
NO ↓		NEXT ↓	
Not a Confined Space	If BOTH are NO ←	Is the space capable of presenting or containing a hazardous atmosphere risk at any time?	
		NO YES	
		If EITHER above are YES then DOWN ↓ ↓ ↓	
		May present a risk of unsafe concentrations of harmful airborne contaminants that may cause injury from fire or explosion such as: dust, fume, mist, vapour.	Yes → Confined Space
		NO ↓	
		May present a risk of unsafe concentrations of flammable contaminants Lower explosive limit (LEL) greater than 5ppm	Yes → Confined Space
		NO ↓	
		May present a risk of unsafe levels of oxygen in the atmosphere. Less than 20.0% by volume or Greater than 21.5% by volume under normal atmospheric conditions.	Yes → Confined Space
		NO ↓	
		May present a risk of substances that can cause engulfment such as: free flowing solid, rising level of liquid	Yes → Confined Space
		NO ↓	
		May present a risk of toxic gases emitted from impregnated steel work such as Ammonia, CO ₂ , H ₂ S, Mercaptan or Mercury.	Yes → Confined Space
		NO ↓	
		Entry required into an area deeper than 1500 mm from the top / lip that is deeper than it's width. i.e. cellar, excavation, pit, sump, trench, duct, or similar space.	Yes → Confined Space
		NO ↓	
		Not a Confined Space	

- 5 Circle Decision tree (Flowchart 1) Outcome **Confined Space** or **Not a Confined Space**

Confined Space Entry Category Assessment

- 6 Determine Confined Space Classification. Is it Conforming or Non-Conforming?

Using the Flowchart 2 below, highlight or circle question or questions that defines the entry as a Conforming or Non- Conforming entry

See PTW Manual Section 5.4 additional definition

7 Flowchart 2: Define Confined Space Classification

Confined Space Classification Decision Tree				
A Confined Space must be assessed against the following questions to be classified as a Conforming Confined Space				
		The Confined Space, has Hazardous liquids and residues still present in the Confined Space prior to entry.	Yes →	Non Conforming CSE
		NO ↓		
		The Confined Space entry having an aperture less than; 450 mm long by 400 mm wide, if rectangular, or less than; 450mm (18”) in diameter, if circular, or having major and minor axes less than; 450 mm and 400 mm, respectively, if elliptical	Yes →	Non Conforming CSE
		NO ↓		
		The Confined Space Internal and External access ways have restricted access or blockages	Yes →	Non Conforming CSE
		NO ↓		
		The Confined Space, is unable to be positively isolated from sources of ingress and requires additional measures to minimise liquids in CSE	Yes →	Non Conforming CSE
		NO ↓		
		The Confined Space is unable to have nozzles opened at remote points to allow prescribed gas tests to be carried out from outside the Confined Space.	Yes →	Non Conforming CSE
		NO ↓		
		The Confined Space is unable to be Purged either by natural or forced cross ventilation until the atmosphere is confirmed safe for entry.	Yes →	Non Conforming CSE
		NO ↓		
		The Confined Space Internal temperature is greater than 35C for entry.	Yes →	Non Conforming CSE
		NO ↓		
		Conforming Confined Space		

8 Circle Decision tree (Flowchart 2) outcome **Conforming** or **Non-Conforming**

9 Fill out the JHA form below, identifying the specific hazards associated with the Confined space

Hazards of Confined space to be entered	Controls/Barriers		
	Y	N	NA
1. Oxygen depletion			
2. Oxygen enrichment			
3. Combustible gases / vapours			
4. Above atmospheric pressure			
5. Hazardous substances, i.e., Chemicals, Toxics, Mercury, NORM, Benzenes, Sludge & contaminants etc.			
6. Electrical hazards i.e., power cables (temporary or permanent)			
7. Mechanical hazards i.e., internal and external fittings			
8. Temperature Stress i.e., hot or cold			
9. Inadequate Light levels			
10. Engulfment / Entrapment			
11. Combustible material			
12. Environmental / Weather Conditions i.e., inside and outside the confined space			
13 Noise i.e., inside and outside the confined space			
14 Isolation failure i.e., uncontrolled introduction of steam/ water /gas / other liquids			
15 Working at Height i.e., inside and outside the confined space			
16 External source of Hazardous atmosphere i.e., exhaust fumes from mobile engine			
17 Other specify			

- | | | | | |
|----|--|--------------------------|---|--------------------------|
| | | Y | N | N/A |
| 10 | Has a copy of the Todd Energy Rescue plan or an alternative Rescue plan been approved for use and attached to the CSE permit? Link to Todd CSE Rescue plan | <input type="checkbox"/> | | |
| 11 | If Breathing Apparatus is required for work party or BA specified in rescue plan. Has WORKSAFE NZ been notified of this activity and notification is current? | <input type="checkbox"/> | | <input type="checkbox"/> |

If YES, Attach WORKSAFE notification to this permit

WORKSAFE Notification Reference number _____

WORKSAFE Notification Reference number _____

- 12 For non-conforming entries, all Confined space entrants must provide evidence of a "Fitness for work certificate" not more than two years old or hold a current BA qualification US 3272 (which includes a fitness for work assessment.)

For non-conforming entries requiring BA for work or rescue, all Confined space entrants must hold US 3272.

- 13 For non-conforming entry. Plant Manager, Field Superintendent or nominated delegate must approve this entry

Non-conforming entry approved by.

Name _____ Signature _____ Date _____

- | | | | | |
|----|--|--------------------------|--------------------------|-----|
| | | Y | N | N/A |
| 14 | For Non-conforming entries, has a Trial or mock rescue exercise been undertaken with rescue team.? | <input type="checkbox"/> | <input type="checkbox"/> | |

Trial or mock rescue exercise date _____

If No, Plant Manager, Field Superintendent or nominated delegate must assessed the risk and approved waiver for NO Non-conforming Trial or mock rescue exercise. Trial or mock rescue exercise waiver approved by.

Name _____ Signature _____ Date _____

- | | | | |
|----|------------------------------------|--------------------------|--------------------------|
| 15 | Ventilation type and volume agreed | <input type="checkbox"/> | <input type="checkbox"/> |
|----|------------------------------------|--------------------------|--------------------------|

Type (circle): **Natural** or **Forced**

Calculation for Forced ventilation

CSE Volume: ____m3 x 10 = _____m3 Total volume to move per hour

Capacity of Air Mover: ____m3 per hour must exceed Total volume per hour

Note CPTW requirement ~10 Air changes per hour

16 Have all personnel involved in the Confined space entry had their competencies within Todd CMS confirmed as specified in **TRAINING / QUALIFICATIONS** Table 1

Name of Checker _____ Date _____

17 Have CSE tags been fitted to CSE Isolation points?

IMMEDIATELY - PRIOR to FIRST ENTRY

18 The Safety Observer must hold an initial thorough Toolbox talk involving Area Technician, Permit Issuer and all other nominated persons involved in the entry including the Rescue Team. Y N N/A

Toolbox 00 checklist to be completed for each issue of the CSE permit and attached.

Each entrant acknowledges by signing on the Toolbox 00 checklist they are.

- Fully aware of the hazards and controls in place for the CSE activity
- Physically fit for the task they have been asked to do in the Confined space.
- Mentally fit for the task they have been asked to do in the Confined space
- Voluntarily entering the Confined space.

All entry to Confined space is voluntary.

19 Have Initial gas tests been completed as specified and recorded on the CSE permit? Y N N/A

Use multiple points for Initial gas tests (top, mid, bottom)

NOTE: No entry allowed for whatever reason if:

- Oxygen is less than <20% or greater than >21.5% or
- Flammables greater > 5% LEL

20 Are all barriers and signage in place to restrict uncontrolled access to Confined space? Such as: signs, danger tape with tag, wooden barriers, cones, Confined space entry covers etc.

21 Means of communication agreed and recorded below,

Safety Observer → CSE entrants _____

Safety Observer → Control Room Operator _____

22 Is all rescue equipment as specified in the Rescue plan been assembled at work site?

23 Has all rescue equipment as specified in the Rescue plan been tested, confirmed operational and has current certification?

24 Is the access / egress of the Confined space a suitable size and design to safely effect a rescue.

IMMEDIATELY - PRIOR to EACH SUBSEQUENT DAY

- | | Y | N | N/A |
|--|--------------------------|---|--------------------------|
| <p>25 The Safety Observer must hold a Subsequent daily Toolbox talk involving all personnel working inside the confined space for that day.</p> <p>NOTE: Subsequent daily Toolbox talks for all entries require any new personnel, including new rescue team members and new operational staff to attend and sign on toolbox 00 checklist</p> | <input type="checkbox"/> | | |
| <p>26 All specified rescue equipment is operational and available as specified on the rescue plan</p> | <input type="checkbox"/> | | |
| <p>27 Where BA is specified in the Rescue plan, BA pre-use checks must be completed as per STA-01.14 (Use of Breathing Apparatus)</p> | <input type="checkbox"/> | | <input type="checkbox"/> |
| <p>28 Confirm Rescue team members available and located at the agreed site location as per rescue plan.</p> | <input type="checkbox"/> | | |
| <p>29 Confirm daily that continuous atmospheric monitoring indicates a safe atmosphere at entry point.</p> | <input type="checkbox"/> | | |
| <p>30 Confirm daily communications check between Safety Observer & CRO.</p> | <input type="checkbox"/> | | |
| <p>31 Ensure daily there are no activities at or adjacent to the worksite that are in conflict with the CSE.</p> | <input type="checkbox"/> | | <input type="checkbox"/> |
| <p>32 Safety Observer must notify CRO of first entry, break times and conclusion of last entry for a shift period, unless specified otherwise.</p> | | | |

COMPLETION – LAST ENTRY (Daily or Final)

- | | Y | N | N/A |
|--|--------------------------|---|-----|
| <p>33 Inspect Confined space and ensure all equipment is removed on final exit.</p> | <input type="checkbox"/> | | |
| <p>34 Ensure accessways are controlled by Danger tape / signs and Confined space entry covers are fitted to all manways as required</p> | <input type="checkbox"/> | | |
| <p>35 Advise CRO final entry has been completed and Confined Space is clear of any debris and / or ready for box up</p> | <input type="checkbox"/> | | |
| <p>36 Ensure all equipment relating to the CSE, rescue equipment, signs, danger tape are removed and returned to storage location</p> | <input type="checkbox"/> | | |
| <p>37 Inform CRO of relocation of safety equipment at completion.</p> | <input type="checkbox"/> | | |

TRAINING / QUALIFICATIONS Table – 1. (Aligned to Todd [BeSafe Matrix](#))

In addition to the below, the requirements for First Aid/Medical assistance during Confined Space Entry are as follows:

1. Conforming Confined Space Entry requires at least **ONE Advanced** First Aider on site.
2. Non-Conforming Confined Space Entry requires at least **ONE Advanced** First Aider and ONE Pre-Hospital Emergency Care (PHEC) on site.

Training / Qualifications - Required as per Todd Matrix										
Course Title	Person In Charge of Work Site (PICWS)	Manage Hazards associated with CSE or Plan a CSE	Permit Issuer (PI)	Safety Observing	Gas Testing Basic	Gas Testing Advanced	First Aid L2- Comprehensive First Aid Advanced First Aider	PHEC – Pre-Hospital Emergency Care (Only required for Non-Conforming CSE)	BA Wearer (Only required if working in BA or specified in rescue plan)	CSE Rescue (Only required if BA rescue is specified)
Unit Standard	17588 CPTW Version	18426 or 17599	17590	17596	25510	3058	6400 + 6401 +6402	29321 or Todd Energy approved equivalent skills and knowledge	3272	14562
Permit System Manager (PSM)	√	√	√							
Permit Applicant (PA)	√	√								
Responsible Operations Supervisor (ROS)	√	√	√							
Permit Issuer (PI)	√	√	√							
Area Technician	√	√				√	√			
Initial Gas Tester	√	√				√				
PICWS/ Safety Observer (SO)	√	√		√	√	or √				
Pre-hospital Emergency Care (Required for non-conforming)								√		
CSE Entrants		√			√	or √			√ as per conditions in title above	
CSE Rescue Team 1-4 No BA requirement in rescue plan		√			√	or √				
CSE BA Board Controller (Only required if working in BA or BA is specified in rescue plan)		√							√	
CSE Rescue Team (BA required in rescue plan)		√			√	or √			√	√ Non-Conforming Only

RESCUE / EMERGENCY RESPONSE TEAM

ROLE	DATE:	DATE	DATE	DATE	DATE
	Name:	Name:	Name:	Name:	Name:
Incident Controller (IC) (As per Coordinated Incident Response CIR)					
On Scene Commander (OSC) (OSC cannot perform any part of CSE Rescue Team)					
Control Room Operator (CRO)					
Safety Observer (SO)					
Rescue 1 <i>Conforming – On site contactable via radio</i> <i>Non-conforming – At CSE ready to act</i>					
Rescue 2 <i>Conforming – On site contactable via radio</i> <i>Non-conforming – At CSE ready to act</i>					
Rescue 3 <i>Non-conforming – On site contactable via radio</i>					
Rescue 4 <i>Non-conforming – On site contactable via radio</i>					
BA Board Controller (For working in BA or BA use for rescue)					
Advanced First Aider <i>All CSE entries – One required on site</i>					
PHEC <i>Non-conforming – One required on site</i>					

Confined Space ENTRY LOG – To be maintained at the CSE entry point by the Safety Observer

Location / Entry Point _____

Safety Observer: _____

Date	Person Entering Confined Space	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out