

TARONG ENERGY CORPORATION LIMITED

OCCUPATIONAL HEALTH & SAFETY PROCEDURE FOR

SAFE WORKING IN A CONFINED SPACE

OHS-PROC-18

Contents

1.0 Purpose:.....	3
2.0 Scope:.....	3
3.0 Context:.....	3
4.0 Flowchart:.....	4
5.0 Definitions:.....	5
6.0 Responsibilities:.....	6
7.0 Actions:.....	8
7.1 Hazard Identification:.....	8
7.2 Risk Assessment:.....	9
7.2.1 Assessing the requirement for a Standby Person:.....	10
7.3 Confined Space Authorisation Register:.....	10
7.4 Emergency Response Plan:.....	10
7.5 Isolation, Clearance and Testing:.....	11
7.6 Entering a Confined Space:.....	12
7.7 Working in a Confined Space:.....	13
7.7.1 Unsafe Atmosphere or Conditions:.....	14
7.8 Hot Work in Confined Spaces:.....	14
8.0 Closing up a Confined Space:.....	15
9.0 Administrative Requirements:.....	16
9.1 Management of Confined Space Incidents:.....	16
9.2 Record Keeping Requirements:.....	16
10.0 Personnel Selection and Training:.....	17
10.1 Selection:.....	17
10.2 Education and Training:.....	17
10.2.1 Level 1: Confined Space Awareness:.....	17
10.2.2 Level 2: Working Safely in a Confined Space:.....	18

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10.2.3	Level 3: Supervising Confined Space Entry:.....	18
10.2.4	Level 4: Monitor Hazardous Atmospheres:.....	18
10.2.5	Level 5: Self contained and long line Breathing Apparatus:	18
10.3	Proof of Competence:	18
11.0	Audit Requirements:	18
12.0	References:	18
13.0	Revision History.....	18
13.1	Revisions:.....	18
13.2	Review.....	18
Appendix 1:	Confined Space Signs:.....	18
Appendix 2:	List of Confined Spaces and Test Requirements – Tarong Power Station.....	18
Appendix 3:	List of Confined Spaces and Test Requirements – Wivenhoe Power Station ..	18
Appendix 4:	List of Confined Spaces and Test Requirements – Wivenhoe Pipeline	18
Appendix 5:	List of Confined Spaces and Test Requirements – Starfish Hill Wind farm	18
Appendix 6:	List of Confined Spaces and Test Requirements – Mt Millar Wind farm.....	18

1.0 Purpose:

This procedure describes the Tarong Energy standards to be followed to ensure safe access to, and safe working in, confined spaces. The procedure has been developed to comply with the mandatory requirements of *AS 2865: 2001, Safe Working in a Confined Space*.

The requirements in this procedure shall apply to all Tarong Energy sites where confined spaces are present.

2.0 Scope:

This Procedure applies to the following personnel:

- Officer-in-Charge of work for a confined space.
- PTW officers.
- Gas testing officers.
- Contractor supervisor.
- Anyone who works in or on a confined space, including all Tarong Energy personnel, contractors and contract labour employed at any Tarong Energy site.

This Procedure shall be read in conjunction with the Tarong Energy Corporation Permit to Work Manual CORP-PTW-01.

Training Requirements:

- **Level 1:** Confined Space awareness (All employees)
- **Level 2:** Working safely within a Confined Space – (All employees required to work in, on or around Confined Spaces)
- **Level 3:** Supervising Confined Space Entry, (OIC, employees who authorise, raise and close Confined Space Authorisations)
- **Level 4:** Monitor hazardous atmospheres (Employees required to assess the atmospheres within a Confined Space. Must have as a minimum level 3 before commencing this training.)
- **Level 5:** Self contained and long line Breathing Apparatus (Employees required to access a Confined Space where the atmosphere is outside acceptable levels. Must have as a minimum level 2 before commencing this training.)



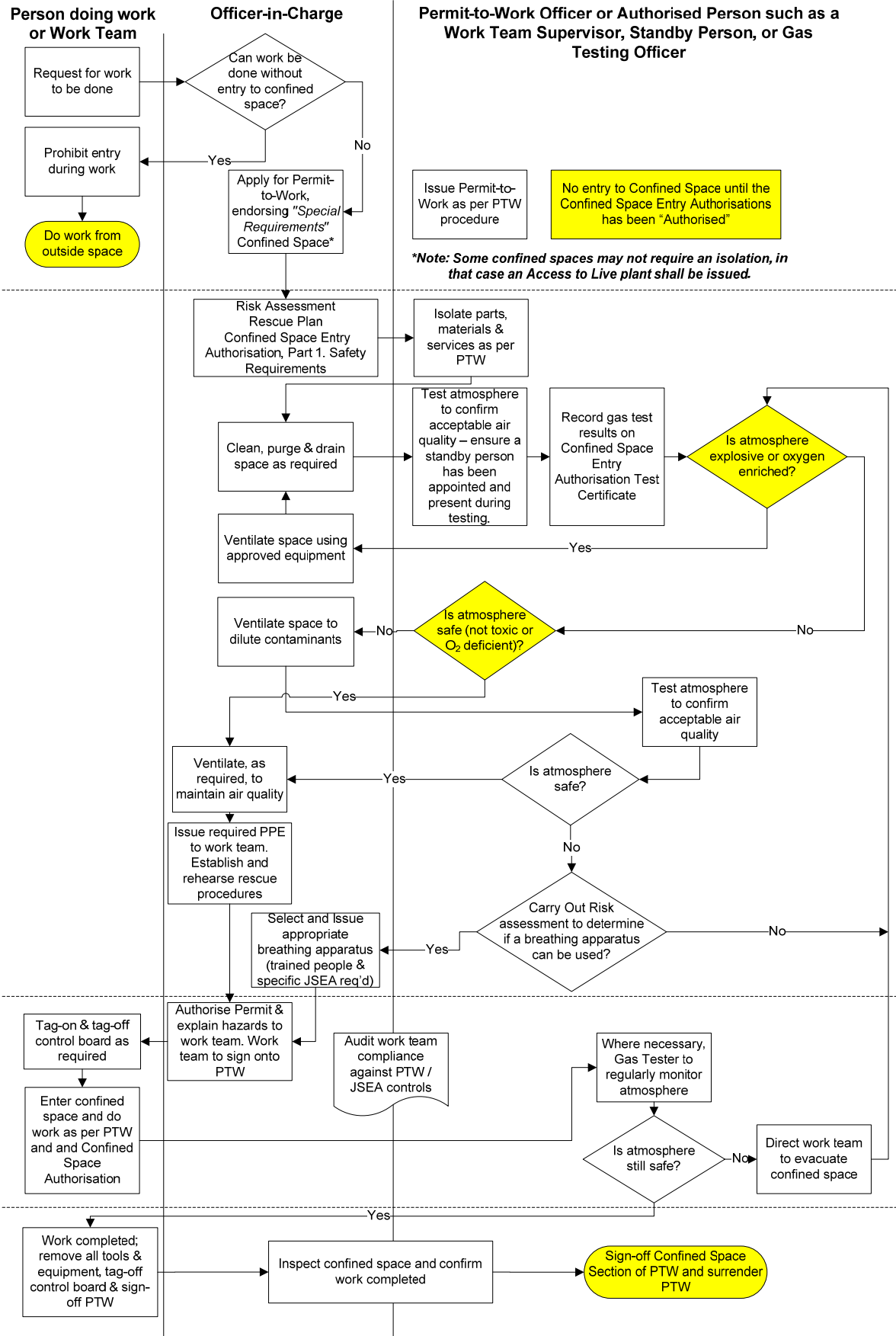
Note:

- For the purpose of this procedure, a person whose breathing zone (head or upper body) is within a confined space is considered to have entered a confined space.
- This is not intended to prevent a person from inserting their arm or hand while holding a test instrument or probe into a confined space as part of the evaluation prior to entry.

3.0 Context:

Part 15 of the Queensland Workplace Health and Safety Regulation 1997 deals with confined space safety, and Sections 143 - 145 specify the detailed requirements. The Regulation adopts the mandatory provisions of AS 2865: 2001 and thus compliance with these provisions becomes an obligation under the Workplace Health and Safety Act.

4.0 Flowchart:



5.0 Definitions:

GTO	Gas testing officer
Confined Space	<p>As per AS 2865: 2001</p> <p>A Confined Space is a space which:</p> <ul style="list-style-type: none"> ▪ Is an enclosed or partially enclosed space that is at atmospheric pressure during occupancy and Is not intended or designed primarily as a place of work; and <p>Is liable at any time to:</p> <ul style="list-style-type: none"> ▪ Have an atmosphere which contains potentially harmful levels of contaminant; ▪ Have an oxygen deficiency or excess; or ▪ Cause engulfment; and ▪ Could have restricted means for entry or exit. <p>As per WH&S Regulation 1997: Schedule 9</p> <p>Confined Space means an enclosed or partially enclosed space that:</p> <ul style="list-style-type: none"> ▪ is at atmospheric pressure when anyone is in the space; and ▪ is not intended or designed primarily as a workplace; and ▪ could have restricted entry to, or exit from, the place; and ▪ is, or is likely to be, entered by a person to work; and ▪ at any time, contains, or is likely to contain, any of the following— ▪ an atmosphere that has potentially harmful levels of a contaminant; ▪ an atmosphere that does not have a safe oxygen level; ▪ anything that could cause engulfment. <p>Confined spaces may include but are not limited to:</p> <ul style="list-style-type: none"> ▪ Storage tanks, tank cars, process vessels, boilers, pressure vessels, silos and other tank-like compartments. ▪ Open-topped spaces such as pits or degreasers. ▪ Pipes, sewers, shafts, ducts and similar structures. <p><i>A list of Confined Spaces at Tarong Energy sites are detailed in Appendix 2,3,4, & 5</i></p>
Confined Space Atmospheric Tests Results	Lists the contaminants, which can occur in a designated Confined Space Entry Authorisation, and shall be kept with Parts 1, 2 3, and 4 of the Confined Space Entry Authorisation. Refer to Appendices for a list of confined spaces and the tests required before entry is permitted.
Confined Space Safety Control Point	Indicates the Confined Space entry point/s. The clipboard is used to hold the Confined Space Entry Authorisation documentation.

Confined	Documentation of the checks and tests to be completed prior to entry into
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Space Entry Authorisation	a Confined Space. The Authorisation details the precautions that may apply to a confined space; the Authorisation shall be issued as an attachment to the Permit-To-Work and is in five parts: <ul style="list-style-type: none"> ▪ Part 1. Confined Spaced Inherent Risk Assessment ▪ Part 2. Emergency Response Plan ▪ Part 3. Atmospheric Tests Results ▪ Part 4. Confined Space Entry Authorisation
“Danger - Confined Space” Sign	A sign that indicates that the area inside the entry point is a Confined Space, prior to entry a person shall be trained and deemed competent to enter a Confined Space (example Appendix 1).
“Danger – No Entry” Sign	A “Danger - No Entry” sign is used to indicate an area that may be unsafe due to known or unknown hazards (refer Appendix 1). These signs are placed in a prominent location when the space is first opened up and during close-up.
Shall	Indicates that a statement is mandatory.
Should	Indicates a recommendation.

6.0 Responsibilities:

In addition to the general responsibilities listed below, specific responsibilities are listed in [Section 8](#) (these are highlighted in ***bold italics***).

Manager Operations	<ul style="list-style-type: none"> ▪ Ensure suitable resources are made available to give effect to the requirements of this procedure; ▪ Ensure periodic audits are done (at least annually) to verify compliance with the procedure and the continuing integrity of the confined space access system.
Officer-in-Charge (in conjunction with the Contractor Supervisor where applicable)	<ul style="list-style-type: none"> ▪ Complete the Confined Space Entry Authorisation and provide advice re: major hazards and safety precautions to all workers who enter the confined space; ▪ Ensure that any change of status to a confined space is communicated immediately to workers who are required to enter the space; ▪ Responsibility for the continued plant related safety of workers in a confined space while a PTW for access to the space remains in effect; ▪ Ensure that ‘Danger – Confined Space’ signs are attached at all designated access points; ▪ Arrange Gas testing officer to complete all necessary testing as specified in Part 3 of the Confined Space Entry Authorisation.
Supervisors	<ul style="list-style-type: none"> ▪ Responsibility for the safety of all workers under their direct control.

PTW Coordinator	<ul style="list-style-type: none"> ▪ Day-to-day administration and implementation of this procedure; ▪ Liaise with the Officer-In-Charge of Work to designate access points and arrange for the opening of doors and hatches; ▪ Arrange Gas testing officer to do all necessary testing, if requested by the OIC.
Gas testing officer	<ul style="list-style-type: none"> ▪ Person authorised to test the space for atmospheric contaminants and advise on air quality.
Standby Person	<p>Where a need is indicated by a risk assessment, a Standby Person shall:</p> <ul style="list-style-type: none"> ▪ Always remains outside the confined space and monitor the Working Party inside the space; ▪ Guard the space against unauthorised entry; ▪ Warn the Working Party of any unusual conditions; and ▪ Summon rescue personnel, if needed.
People Services Section	<ul style="list-style-type: none"> ▪ Responsible for preparation of suitable training materials, so that personnel can be trained in all relevant activities related to entering and working in or on confined spaces, as described in Section 11 of AS 2865: 2001; ▪ Responsible for preparation and delivery of competency-based training to selected personnel in Confined Space Entry and Atmospheric Gas Monitoring; ▪ Responsible for identifying target groups for training and the particular levels of training for the targeted groups; and ▪ Provide advice to line managers on breaches of the confined space access system and assisting in investigation of incidents.
All personnel who enter a confined space	<p>Shall comply with the provisions of this procedure and of the specific requirements listed on the Confined Space Entry Authorisation, T-0399.</p>

7.0 Actions:

7.1 Hazard Identification:

The relevant **Manager Operations** shall ensure that all confined spaces at Tarong Energy workplaces are identified and labelled with appropriate signage (refer [Appendix 1](#)).

The **People Services Team** shall provide advice as necessary on the classification of confined spaces.

A register of identified confined spaces at Tarong and Wivenhoe Power Stations, Starfish Hill and Mt Millar Wind farms and Wivenhoe Pipeline is provided in Appendices 2,3,4,5 & 6 respectively. The register also includes the atmospheric contaminant testing requirements prior to entry.

In identifying the hazards associated with confined space work, the **OIC (in conjunction with the Contractor Supervisor where applicable)** shall also consider the nature and scope of work to be conducted inside the confined space. This work may increase the risk of injury or illness and typical hazards that the OIC needs to consider include:

- Electricity and potential for electrocution.
- Noise, which may be caused by hammering or the use of equipment within the confined space, which can be amplified to dangerous levels, inhibit communication, and prevent warnings from being heard.
- High or low temperatures, which can result from the work process, changing weather conditions, or where appropriate ventilation or clothing is not supplied or worn.
- Radiation in confined spaces, such as from X-rays, radiation gauges, isotopes, lasers and welders.
- Manual handling of bulky, heavy, or inconveniently shaped items.
- Drowning – an unconscious person can drown in only a few centimetres of water.
- Factors involving the people themselves, such as poor selection and/or training, lack of experience and/or confidence, fitness, attitude, medical conditions etc.
- Traffic, in the form of unauthorised encroachment of vehicles or people.
- Irritants in the form of solvents, residues, scale, sludge including fumes from welding processes etc.
- Excess pressure build-up in closed systems such as pipelines.
- Impaired accessibility such as slippery surfaces, small access-ways, and obstructions.
- Height and weight hazards such as objects or people falling, cave-ins and structural collapse, manual handling injuries and so on.
- Lighting.

7.2 Risk Assessment:

Following a request for work to be conducted within or around a confined space, the **OIC** shall assess whether it is practical for the work to be completed without personnel entering the space. If so, the Working Party shall be prohibited from entering the space and the work will be conducted in accordance with routine PTW procedures.

If the work can only be completed via a Confined Space Entry Authorisation, the **OIC** shall submit an Application for Permit-to-Work (APTW) in accordance with CORP-PTW-01 and endorse the “**Special Requirements**” Section of the APTW in the Maintenance Management System with the words “**Confined Space Entry Authorisation**” required”.

Note: The **OIC** shall first check the *Ellipse Confined Space Database* to determine if an authorisation for the confined space in question exists.


The **OIC** shall inspect the confined space with the **OIC’s Supervisor** or **Contractor Supervisor** and then conduct a risk assessment using the “*Confined Space Entry Authorisation*” (**Form T-0399**).

The risk assessment shall take into account the following:

- The nature of the confined space and inherent hazards.
- The work required to be done.
- The major hazards involved and the associated risks (refer Section 8.1).
- The requirement for a Standby Person. Refer to section 7.2.1 [Assessing the requirement for a standby person.](#)
- Atmospheric testing requirements and potential for air quality to deteriorate and become hazardous.
- Rescue and emergency requirements in the event of an incident. [Refer Section 7.4 Emergency Response Plan.](#)

After assessing the risks, the **OIC** shall specify the following:

- The atmospheric testing required, initially and on an ongoing basis;
- The ventilation and lighting required for work to be conducted in the confined space;
- The rescue and emergency equipment required, including whether a Standby Person is required;
- The respiratory protection equipment required;
- The specific PPE or body protection required;
- Whether a formal Job Safety and Environmental Analysis (refer **Form T-1022**) is required to supplement the Confined Space Entry Authorisation.

 **The Confined Space Entry Authorisation may be completed by the PTW Officer or OIC but shall be authorised only by the OIC.**

7.2.1 Assessing the requirement for a Standby Person:

It is a mandatory requirement for a standby person to be present during the pre-entry atmospheric monitoring task. At all other times, a standby person should be provided wherever a risk exists and control measures cannot otherwise ensure that:

- A safe level of oxygen cannot be continuously maintained;
- Atmospheric contaminants are present or may be present in concentrations above exposure standards;
- There may be a risk of fire or explosion;
- There may be a risk of entrapment or engulfment;
- The work to be performed may generate risk to health or safety;
- Equipment or conditions outside the confined space cannot control or monitor the confined space to ensure the health and safety of the persons in the confined space (for example: ventilation, respirator air supply, vehicles, weather); or
- There may be other risks to the health or safety of persons entering the confined space.
- The requirement for a standby person will be evaluated as part of the risk assessment performed in the Confined Space Entry Authorisation (T-0399) for inherent risks associated with the confined space. The JSEA for the task will evaluate the requirement of a standby person relating to the activity/s being performed inside the confined space.

7.3 Confined Space Authorisation Register:

- The Confined Space Authorisation shall be completed by the OIC with assistance from a member of the OH&S team using form T-0399.
- The Confined Space Authorisation documentation (*form T-0399*) shall be entered into a register for future use. The OH&S team will recommend training on identifying spaces. Work teams shall be responsible for ensuring that confined spaces in their work areas of control are labelled correctly.
- The OIC is responsible to review the authorisation prior to commencing work to ensure it is correct and covers the intended scope of work.
- The OIC must sign the authorisation indicating that confined space entry can commence and that the authorisation is correct.

7.4 Emergency Response Plan:

It is a requirement that each risk assessment for a Confined Space Entry includes an Emergency Response Plan. The Emergency Response Plan itself is formulated by the **OIC/ Supervisor** of the working party required to enter the Confined Space, in conjunction with the **Emergency Response Team (ERT)**.

Excerpt from AS/NZS 2865: 2001, Section 12 - Emergency Response:

12.3 Procedures - All persons who may be involved in any way with rescue from a confined space should be made aware that -

- Well-planned and well-rehearsed emergency response procedures are essential and are to be followed at all times: and

- In an emergency, the spontaneous reaction to immediately enter and attempt a rescue from a confined space may lead to the death or serious injury of those attempting the rescue.

7.5 Isolation, Clearance and Testing:

The **Permit-to-Work (PTW) Officer** shall review the Application for Permit to Work **APTW** and;

- Where isolation is required, the **PTW Officer** shall isolate the apparatus in accordance with the PTW Isolation Sheet and then issue the PTW including the Confined Space Entry Authorisation documentation to the OIC; or
- Where no isolation of plant is required, the Confined Space Entry Authorisation shall be issued in conjunction with an **Access to Live Plant Permit**. Working Party members shall sign onto **Access to Live Plant Permit** prior to accessing the Confined Space.



Where necessary, the *Confined Space* shall be cleared of contaminants by use of a suitable purging agent. The purging agent or any gas used for ventilation purposes shall never be pure oxygen or a gas mixture with an oxygen content of > **21.0%**

Prior to confined space entry, all plant associated with the work to be conducted in the confined space shall be isolated, brought to a neutral energy state and rendered free of any hazardous, flammable and/or combustible materials. The **OIC** and **PTW Officer** is responsible for ensuring that this preparatory work is completed in a safe and environmentally acceptable manner and in accordance with standard isolation procedures.

Until a Confined Space Entry Authorisation is authorised by the OIC, “**DANGER – NO ENTRY**” signs or “**DANGER DO NOT ENTER**” shall be posted in appropriate locations to indicate to personnel that the area around the space may be unsafe due to known or unknown hazards. The **OIC** or **PTW Officer** is responsible for placing the signs when the confined space access is first opened for initial air quality testing.


The **OIC** and **PTW Officer** shall ensure the confined space is cleaned, purged and drained as necessary.

The **Gas testing officer (GTO)** shall only enter the Confined Space after being **authorised** to do so by the OIC (refer to Authorisation Section on *Part 3 Atmospheric Test Results* of the Confined Space Entry Authorisation).

An **GTO** shall test the atmosphere inside all confined spaces.

The specific tests to be done shall be those specified on Part 3 of the Confined Space Entry Authorisation. The **GTO** shall wear the personal protective equipment as specified by the OIC and shall ensure that testing is conducted throughout the space likely to be occupied by workers and shall record the test results and sign-off the Atmospheric Test Authorisation.

Atmospheric conditions are considered unacceptable and entry is not permitted if the atmosphere is explosive (>5% of LEL) or (oxygen enriched > 23.5% O₂). In such cases, the **OIC** shall organise ventilation of the space using approved equipment. If the atmosphere contains toxic contaminants in excess of occupational exposure standards or oxygen deficient (< 19.5% O₂), the **OIC** shall select and issue appropriate breathing apparatus. The **OIC** shall also ensure that the space continues to be ventilated to reduce contaminants to the lowest practicable level.

 **Refer to the TEC training management system for a list of authorised (GTOs).** The operation of confined space test equipment requires specialised skills and knowledge to ensure the safety of personnel. The personnel designated in the TEC training management system have completed a training program and demonstrated their competency in operating atmospheric gas monitoring equipment.

7.6 Entering a Confined Space:

All persons who are required to enter a Confined Space shall be trained and deemed competent to the required Confined Space training level, and have the permission of the OIC for that Confined Space.

Where more than one **OIC** requires access to a confined space, one **OIC** shall be nominated and control that access.

Once the **OIC** has checked the isolations, reviewed initial gas testing results and is satisfied that work can proceed safely, the **OIC** shall authorise the Confined Space Entry Authorisation by signing at the bottom of page 5 of the Authorisation (refer to Part 4: Confined Space Entry Authorisation).

 **The OIC shall only sign off the Confined Space Entry Authorisation when all conditions of entry as specified on the Authorisation have been fulfilled.**

The **OIC / Contractor Supervisor** shall ensure that the Working Party is properly equipped to carry out the work safely and that the team has the correct tools and equipment for the job. The OIC / Contractor Supervisor shall also ensure that the Working Party can work in a safe position (e.g. through the use of a fixed work platform or scaffold) and that the Working Party is protected from extremes in temperature or weather conditions.

The **OIC / Contractor Supervisor** shall brief Working Party members on the safety requirements (as listed on the Confined Space Entry Authorisation and as specified in the Job Safety & Environmental Analysis, if applicable).

The **OIC / Contractor Supervisor** shall ensure that the Confined Space Entry Authorisation, Job Safety & Environmental Analysis and other relevant documentation or drawings are readily accessible at the entry to the confined space. These documents shall be attached to the Confined Space Safety Control Point clipboard, which the OIC will place at the controlled entrance to the confined space.

 The **Safety Control Point Clipboard** shall:

- Be issued with **all** Confined Space Entry Authorisations;
- Be placed as close as possible to the controlled entrance to the confined space;
- Contain the Confined Space Authorisation and any applicable JSEAs.

Where a Standby Person is required, the **OIC** shall brief the Standby Person on the requirements of the Confined Space Entry Authorisation, including:

- The method of communication with those entering the confined space.
- The method by which the Standby Person will raise the alarm in case of an emergency.
- The rescue plan.

Working Party members shall not enter a confined space unless;

- They are trained to [Level 2](#) or above,
- Have been instructed in all the hazards and specific safety requirements as listed in Part 1 and Part 2 of the Confined Space Entry Authorisation,
- Are authorised to enter, and
- Comply with conditions of Section 7.7 of this procedure.

7.7 Working in a Confined Space:

All **Working Party members** shall:

- Prior to signing on to the applicable PTW, (e.g. Master, Subsidiary or Contractor Supervisor Authorisation) check that the PTW covers the Confined Space Authorisation, i.e. that it is linked (See **Section 2A** of the Subsidiary PTW or CSA) to the Confined Space Authorisation PTW Number.
- After signing-on to the applicable PTW, attach their ID Cards to the Confined Space Entry Safety Control Point Board before entering the Confined Space.
- Remove their ID card from the Confined Space Entry Safety Control Point Board when exiting the Confined Space (if leaving the immediate vicinity of the confined space).
- If they are required to re-enter a confined space on a following shift, only re-enter the space after first checking with the OIC/Contractor Supervisor on the status of the Confined Space.
- Remove their ID Cards from the Confined Space Entry Safety Control Point Board and Sign-off the Associated **Permit to Work/CSA** and when they have completed work in the confined space. If an individual has not removed their ID card from the Confined Space Entry Safety Control Board then that person shall be assumed to be inside the space until proven otherwise by the OIC.
- Conduct the work in accordance with the Confined Space Entry Authorisation, including wearing all specified protective equipment at all times during the work.
- Ensure fittings or equipment that could impede egress or rescue from the space do not obstruct openings to the space.

The **OIC** shall:

- Immediately inform all Working Party team members of any possible or intended changes to the status of the confined space. Note: Where there is a Subsidiary PTW or CSA in place, the OIC shall immediately inform the Subsidiary OIC or Contractor Supervisor who shall in turn inform all working party team members under their control of any possible or intended changes to the status of the confined space.
- Advise to the status of the space to Working Party members on at least a once a shift basis.
- Contact the PTW Officer who issued the permit or the PTW Coordinator for further advice if the OIC has any doubt or questions about any aspects of the PTW prior to entry or during work in the Confined Space.

The **Standby Person** shall:

- Where required, remain outside the confined space at all times when Working Party members enter and work in the space.
- Monitor the status of Working Party members inside the space.

- Maintain communication wherever practicable.
- Guard the space against unauthorised entry.
- Warn the Working Party of any unusual conditions.
- Summon rescue personnel if needed.

7.7.1 **Unsafe Atmosphere or Conditions:**

Where there is potential for a change to the atmosphere within the confined space (this may be due to the nature of the work), the OIC is responsible for making arrangements for additional monitoring and retesting of the atmosphere within the Confined Space.

The GTO shall record test results on the Confined Space Authorisation under Part 3. Atmospheric Test Results. The GTO is also required to record whether the results are/ are not within safe limits and sign the relevant sections of the form.

The **Standby Person** may act as the gas tester for ongoing monitoring if trained to do so.

In situations where the atmosphere is deemed to be unsafe, or the Gas monitor alarm activates, the Working Party shall immediately evacuate the confined space. Work shall not be permitted to continue until the space has been cleaned, purged and re-tested to confirm suitable air quality.



Note: Where a written authority is issued for entry to conduct atmospheric testing within the confined space, the written authority should include any control measures necessary for safe entry for conducting atmospheric testing e.g. air-supplied respiratory protective devices.

7.8 **Hot Work in Confined Spaces:**

A Hot Work Authorisation shall be obtained prior to undertaking any hot work, including welding, grinding or cutting in a Confined Space. The Hot Work Authorisation can only be issued after inspection and testing of the Confined Space to ensure:

- Concentration of flammable gases or vapours is below 5% of the Lower Explosive Limit (LEL) and Oxygen Level is below 23.5%.
- There is no significant concentration of combustible dust.
- Piping within the Confined Space that may leak, become damaged, or worked upon, has been purged, and the concentration of flammable gases or vapours is below 5% of the LEL.
- Liquids and solid residues have been removed, as necessary, to prevent the release of flammable or toxic substances.
- Fire prevention measures have been identified and will be implemented.
- Fume control measures have been identified and will be implemented.



Note: AS 2865: 2001, Appendix F, contains further recommendations for the conduct of hot work in confined spaces.

8.0 Closing up a Confined Space:

All **Working Party members** shall:

- Remove all tools and equipment from the space and clean-up residual materials, nuts, bolts, cleaning rags, etc.
- Removed their ID card from the Confined Space Entry Safety Control Point Board and Sign-off the associated **Permit to Work/CSA..**

The **OIC** shall:

In the company of a second person, conduct an inspection of the confined space to confirm that work has been completed and the space is in a condition fit for return to service and that no tools, equipment or personnel remain in the space. The role of the second person is primarily that of an observer while the OIC completes the inspection.

When a Confined Space is ready to be closed the **OIC** shall:

- Ensure that all personnel who have entered the confined space have removed their ID card from the Confined Space Entry Safety Control Point Board.
- Ensure that section 6 of all Subsidiary PTW/s and CSA/s have signed off acknowledging their personnel are clear of the space and shall remain clear.
- If an individual has not removed their ID card from the Confined Space Entry Safety Control Board then that person shall be assumed to be inside the space until proven otherwise by the OIC.

On leaving the confined space the **OIC** shall:

- Place a **“DANGER – NO ENTRY”** sign or **“DANGER DO NOT ENTER”** tape at the entrance to the confined space.
- On completion of the inspection, latch all access doors ready for securing. Where plant design requires that maintenance personnel close access doors, the OIC shall witness the closing of the access doors until satisfied that no further access is possible. The OIC shall organise for all access doors to be secured (boxed up) as soon as possible after completion of the inspection.
- Return all completed Confined Space Entry Authorisation forms and the yellow Safety Control Point clipboard to the PTW Office.

On completion of closing up the confined space, the **OIC** shall sign-off **Part 4** of the Confined Space Entry Authorisation and **Section 6** of the associated PTW to confirm that the Confined Space Entry Authorisation is now closed prior to surrendering the PTW.

Note: All completed documentation are to be attached to the PTW prior to forwarding to the PTW office.

The **OIC** shall remove all associated **“Danger Do Not Enter”** tape and dispose of same and shall ensure that where temporary **“Danger - Confined Space”** signs have been used; that these are removed and returned to the PTW Office.

9.0 Administrative Requirements:

9.1 Management of Confined Space Incidents:

Any deliberate, intentional breach of the Confined Space Access Procedures described in this policy may result in disciplinary action and or retraining.



Note: Any **breach** shall result in an investigation by the OIC/Contractor Supervisor and the Health and Safety Team.

When a person fails to sign off the Associated PTW before leaving site, or is unable to sign off due to ill health or injury:

- The **OIC** or **Supervisor** shall sign off for that person after being satisfied that the person is no longer in the Confined Space.
- If a person fails to sign off without due cause, (injury, illness, etc), that person's Supervisor shall make them aware of their responsibilities and obligations and arrange sign off as soon as practicable.
- Unauthorised removal or defacing of ID cards attached to the Confined Space Entry Safety Control Board will be considered a serious breach and shall result in disciplinary action.

9.2 Record Keeping Requirements:

PTW and Confined Space Entry Authorisation – following completion of confined space work, the PTW and Confined Space Entry Authorisation, including all Sign-on/ Sign-off Sheets shall be returned to the site PTW Office for retention in a suitably marked file for a period of at least **5 years**.

Job Safety & Environmental Analysis Worksheet – where a JSEA has been completed, this is considered a formal risk assessment. The JSEA should be kept in an accessible location where people can refer to it during the duration of the job, then after the job the original Worksheets shall be forwarded to the Health and Safety Centre for retention on a records management file for a period of at least **5 years** or until the assessment is updated.

Confined Space Risk Assessment – where a formal confined space risk assessment has been completed on an individual confined space or a class of confined spaces at the site, the documented assessment shall be retained on a records management file for the life of the confined space and must be reviewed at least every **5 years**.

Training Records –The People Services department is responsible for managing & maintaining **all** training records. All hard copy training documentation shall be forwarded to the training coordinator for data entry and filing.

Record Keeping shall be in compliance with Gov – Proc – 07 – Archival of Records.

10.0 Personnel Selection and Training:

Because entering or working in a confined space can be hazardous and may impose extra physiological demands, the aptitude and physical competence of persons who are to conduct such entry or work, and those who are appointed to stand-by or Standby Person duties, should be appropriately evaluated with regards to the task envisaged and the type of confined space.


Persons who will be expected to work in confined spaces should be physically and mentally suitable. Heavy manual tasks, and the possible added burden of working in breathing apparatus, may make the job too demanding for some people.

Personnel who are required to wear BA shall have a current lung function test confirming that their lung function is within normal limits. Refer to the TPS Occupational Health Nurse for lung function testing.

10.1 Selection:

Personnel with any of the following medical conditions should not work in confined spaces unless they have obtained written clearance from a medical practitioner:

- A history of fits, blackouts or fainting attacks.
- A history of heart disease or heart disorders.
- High blood pressure.
- Uncontrolled asthma, bronchitis or shortness of breath on exertion.
- Deafness.
- Any illness causing giddiness or loss of balance.
- Claustrophobia or other nervous or mental disorder.
- Back pain or joint trouble that would limit mobility in a cramped space.
- Deformity or disease of the lower limbs that limits movement.
- Chronic skin disease.
- Serious eyesight defects.
- Lack of sense of smell.

 NOTE: If in doubt contact the TPS Occupational Health Nurse for guidance on capacity for working in a confined space in the first instance.

10.2 Education and Training:

10.2.1 Level 1: Confined Space Awareness:

Level 1 training is intended to be a general awareness level only designed for all employees and shall be delivered as part of the general site safety induction training. Those employees who are required to work within or around a confined space shall be required to complete a Level 2 training course - Working Safely in a Confined Space.

Key Actions

- Follow a structured process to identify hazards, assess the risk and make the changes when working in areas where confined space work is carried out.
- Identify the regulations that govern confined space entry procedures.
- Define the parameters and levels of a confined space.
- Outline how confined spaces are managed

10.2.2 Level 2: Working Safely in a Confined Space:

The intent of this training is to provide participants with the knowledge, skills and competencies necessary to work safely in and on confined spaces controlled by site-specific procedures and permits. The training program will concentrate on the specific training requirements as specified by AS/NZS 2865:2001.

Key Actions:

- Explain legislative requirements for confined space entry.
- Identify potential confined spaces
- Identify and confirm assessment of potential atmospheric hazards.
- Identify and assess hazards related to working in confined spaces.
- Participate in the risk assessment process for work within confined spaces
- Implement the control measures as determined by the risk assessment process.
- Perform work in compliance with the permit and related documents.
- Perform work in compliance with specific company procedures.
- Describe the role and responsibilities of Stand-by persons.
- Describe emergency procedures.



NOTE: The trainers and assessor shall be knowledgeable and competent in all relevant aspects of confined spaces consistent with **AS 2865: 2001** and relevant legislation.

10.2.3 Level 3: Supervising Confined Space Entry:

The intent of Level 3 training is to provide participants with the knowledge, skills and competencies necessary to ensure that a safe environment is provided and maintained when persons enter confined spaces in the workplace, by complying with the requirements of current legislation and Australian Standard 2865. Key roles who are required to attend this training include OICs and Supervisors.

Key Actions:

- Explain the current legislative requirements for confined space entry.
- Identify confined spaces in the workplace.
- Identify potential hazards in confined space entries.
- Complete the hazard identification and risk assessment process for entry and work within confined spaces.
- Demonstrate selection and implementation of control measures for confined spaces.

- Complete and issue site-specific permits/ documentation.
- Audit and review work conducted subject to the permit system.
- Describe the role and responsibilities of stand-by persons.
- Describe emergency procedures.
- Monitor Hazardous Atmospheres.
- Provide participants with an understanding of the legislative requirements and correct use of gas detection equipment in the workplace.
- Explain and demonstrate a thorough knowledge of current legislative requirements.
- Explain common causes of atmospheric hazards.
- Demonstrate the ability to source specific information required for gas detection.
- Demonstrate the correct selection and calibration of gas detection equipment.
- Interpret record and analyse gas detection results.
- Provide recommendations based on results of gas detection.
- Explain the limitations of gas detection.
- Demonstrate the ability to understand and complete applicable sections of Entry Authorisations.

10.2.4 Level 4: Monitor Hazardous Atmospheres:

The intent of Level 4 training is to provide participants with an understanding of the legislative requirements, and correct use of gas detection equipment in the workplace. It is mandatory for all Gas Testing Officers to attend this training.

Key Actions:

- Explain and demonstrate a thorough knowledge of current legislative requirements.
- Explain common causes of atmospheric hazards.
- Demonstrate the ability to source specific information required for gas detection.
- Demonstrate the correct selection and calibration of gas detection equipment.
- Interpret record and analyse gas detection results.
- Provide recommendations based on results of gas detection.
- Explain the limitations of gas detection.
- Demonstrate the ability to understand and complete applicable sections of Entry Authorisations.

Note: This module has a prerequisite:

- Level 4 Prerequisite = Level 3

10.2.5 Level 5: Self contained and long line Breathing Apparatus:

This training is mandatory for employees who will be required to access a Confined Space where the atmosphere is outside acceptable levels.

Note: This module has a prerequisite:

- Level 5 Prerequisite = Level 2

10.3 Proof of Competence:

Regardless of level of training required for confined space work documents detailing an employee's competency level will be provided prior to work.



Note: In all cases the training provided shall meet the requirements of **AS/NZS 2865: 2001**.

11.0 Audit Requirements:

The **Manager Operations** shall have prepared an audit schedule itemising the:

- Confined Space areas to be audited.
- Procedures to be covered.
- Auditors assigned.
- Timing of audit.

It is the responsibility of the **OIC /Contractor Supervisor** to ensure that the provisions of this procedure are being complied with whenever confined space work is being conducted.

The **Manager Operations** will nominate a competent person to do a formal audit against this procedure on an annual basis.

The **Manager Operations** is responsible for developing an action plan to address non-compliances identified during the audit.

The **Health and Safety Team** shall informally monitor compliance with the requirements of this procedure by doing periodic inspections. Any issues noted shall be immediately taken up with the OIC for remedial action.

12.0 References:

AS 2865: 2001	Australian Standard: Safe Working in a Confined Space.
AS 1319	Confined Space Signage
Corp-PTW- 01	Corporate Permit to Work Manual
Gov- Proc- 07	Archival of Records
HB 213: 2003	Guidelines for Working in a Confined Space
T-0399	Confined Space Entry Authorisation
T-0843	Restricted Access Form
T-1044	Hot Work Authorisation
T-1133	Team Safety Behaviour Audit
OHS-PROC-213	Respiratory Hazards and Guidelines for Respiratory Protective Equipment.
WHS Reg 1997	Workplace Health and Safety Regulation 1997

13.0 Revision History

13.1 Revisions:

All revisions to the Confined Space Procedure shall be authorised by the Manager Operations or delegate.

The revision history of the Confined Space procedures shall make reference to the sections revised or added to the procedure.

A signed hardcopy, plus an electronic version, shall be forwarded to the QA Section for filing as the latest controlled copy.

13.2 Review

As part of a review process for the Confined Space Procedure, the following actions will be implemented under the authority of the Manager Operations:

- A formal compliance audit to monitor the implementation of this procedure will be conducted annually as per Section 11; and
- The procedure will be reviewed following this audit and revisions made accordingly where required; and
- In line with changes to legislation or upon receipt of a suggestion for improvement that cannot wait until the annual review, the Confined Space procedure will be reviewed in line with the Tarong Energy Corporation's continuous improvement philosophy.

Rev. No.	Rev. Date	Revision Description	Author	Approv. By
0	20.10.01	First issue of corporate procedure. Amalgamation of Tarong (T-PTW-05) and Wivenhoe (W-PTW-07) procedures (Refer to these other procedures for details of revision history).	G. Hewson & R. Kruger	G. Campbell
1	03.05.02	Minor amendments to Appendices 2 and 3 reflect current "Test Required" information.	P. Green	G. Campbell
2	18.01.05	Amendments to Appendices 2 and 3 and inclusion of DPAP in App 2.	P. Green	W. Renshaw
3	14.11.2005	Amendments made to address audit including training and rescue requirements.	M. Barry	W. Renshaw
4	4.06.2007	<p>Amended document to reflect changes advised by Confined Space Working Group.</p> <p>Amended document to include gas testing requirements for all spaces. Update audit reference.</p> <p>Amended Procedure to include attaching of ID Cards to Safety Control boards and inclusion of Standby Person requirements.</p> <p>Updated to include danger Do Not Enter Tape, changes to Contractor Supervisor responsibilities and changes from Permit to Authorisation.</p> <p>Updated Confined Space Appendix listing, added Confined Space Evaluation section and changed wording in Section 7.6 ID card requirements when existing.</p> <p>Changed title of Authorised Gas Free Assessor to Gas Testing Officer through document. Included reference to the Ellipse Confined Space Database in Section 7.2. Included new requirement that a standby person is to be present during the pre-entry atmospheric monitoring task under Section 7.2.1. Changed reference to the "Confined Space Evaluation" to the "Confined Space Authorisation" throughout the document. Added in the following requirements to Section 7.3:</p> <ul style="list-style-type: none"> - The OIC is responsible to review the authorisation prior to commencing work to ensure it is correct and covers the intended scope of work. - The OIC must sign the authorisation indicating that confined space entry can commence and that the authorisation is correct. <p>Amended reference from AS/NZS 2865: 2001, Section 12 - Emergency Response (section number had changed from 15.2 to 12.3).</p>	M. Barry/M. Joy	W. Renshaw

		<p>Changed reference to the PTW Register to the TEC training management system in Section 7.5. Added in the requirement “personnel who are required to wear BA shall have a current lung function test confirming that their lung function is within normal limits. Refer to the TPS Occupational Health Nurse for lung function testing” under Section 10. Changed wording in Section 10.1:disability to medical conditions, asthma to uncontrolled asthma. Added wording (in italics) “should not work in confined spaces <i>unless they have obtained written clearance from a medical practitioner</i>” and “<i>If in doubt contact the TPS Occupational Health Nurse for guidance on capacity for working in a confined space in the first instance</i>”.</p> <p>The following wording was added to Section 7.7:</p> <ul style="list-style-type: none"> • <i>Prior to signing on to the applicable PTW, (e.g. Master, Subsidiary or Contractor Supervisor Authorisation) check that the PTW covers the Confined Space Authorisation, i.e. that it is linked (See Section 2A of the Subsidiary PTW or CSA) to the Confined Space Authorisation PTW Number.</i> • <i>After signing-on to the applicable PTW, attach their ID Cards to the Confined Space Entry Safety Control Point Board before entering the Confined Space.</i> • <i>Where there is a Subsidiary PTW or CSA in place, the OIC shall immediately inform the Subsidiary OIC or Contractor Supervisor who shall in turn inform all working party team members under their control of any possible or intended changes to the status of the confined space.</i> <p>Added the new wording (in italics) to section 13.2 “<i>In line with changes to legislation or upon receipt of a suggestion for improvement that cannot wait until the two yearly review, the Confined Space procedure will be reviewed in line with the Tarong Energy Corporation’s continuous improvement philosophy</i>”. This section was also updated to align with the annual audit requirement as per Section 11.</p> <p>Added to Appendix 2: Ducts (primary, secondary and crossover), HP/LP Heaters, Man Holes.</p>		
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Appendix 1: Confined Space Signs:



Figure 1 (above). Label used to identify confined spaces at Tarong Energy workplaces



Figure 2 (above). Danger-No Entry signs used to prohibit entry to a confined space during opening and closing of the space.

Figure 3 (above). Confined Space Safety Control Point Board.
(Note: Figure 3 is the reverse side of Figure 2).



Appendix 2: List of Confined Spaces and Test Requirements – Tarong Power Station.

Note: Confined spaces should be ventilated before entry

Ref	Confined Space	No.	Tests Required
1	Acid Tanks - 'A', 'B' and 'C'	3	O ₂ %LEL, SO ₂
2	Air Handling Units for Air Conditioning System		O ₂ %LEL
3	Air Heaters (Inner Hub, Cold Side and Hot Side)	8	O ₂ %LEL
4	Ammonia Solution Tank	2	O ₂ %LEL, ammonia (NH ₃)
5	Ash Trenches		O ₂ %LEL, SO ₂ , CO
6	ATP Ash Slurry Feed Inlet Box	1	O ₂ %LEL
7	ATP Bypass Pit	3	O ₂ %LEL
8	ATP Cenosphere Conduit	2	O ₂ %LEL
9	ATP Thickener Overflow Conduit	3	O ₂ %LEL
10	ATP Centre of Hydraulic Drive Unit	1	O ₂ %LEL
11	ATP Header Tank	1	O ₂ %LEL
12	ATP Lime Silo ^(a)	1	O ₂ %LEL
13	ATP Slurry Mix Tank	1	O ₂ %LEL
14	ATP Thickener Feed Pipe	1	O ₂ %LEL
15	ATP Thickener Overflow Reservoir and Pump Manifold	1	O ₂ %LEL
16	ATP Waste Water Sump	1	O ₂ %LEL
17	Hydrazine Solution Tank	2	O ₂ %LEL, hydrazine (N ₂ H ₄)
18	Blowdown Line Manholes		O ₂ %LEL
19	Boiler Furnace	4	O ₂ %LEL
20	Boiler Air Ducts	4x2	O ₂ %LEL
21	Boiler Drum	4	O ₂ %LEL
22	Boiler Gas Ducts	4x2	O ₂ %LEL
23	Boiler Blowdown Vessels	4	O ₂ %LEL
24	Boiler Fuel Oil Tanks ^(b)	2	O ₂ %LEL
25	Boiler Penthouse	4	O ₂ , %LEL, CO ₂ , SO ₂
26	Boondoomba Conduits	1	O ₂ %LEL, H ₂ S
27	Cable Pits and Trenches with full cover		O ₂ %LEL
28	Carbon Filter Vessels	2	O ₂ %LEL Continuous monitoring for O ₂
29	Caustic Tanks - 'A' and 'B'	2	O ₂ %LEL, mercury (Hg)
30	Chimney	1	O ₂ %LEL, SO ₂ Monitor or retest for SO ₂ when above 10-metre level.
31	Check Weigh Bin	2	O ₂ %LEL

Ref	Confined Space	No.	Tests Required
32	Chlorine Plant Water Storage Tank	1	O ₂ %LEL
33	Clarifier Vessels	2	O ₂ %LEL
34	Coal Bunkers	4x6	O ₂ %LEL
35	Coal Chutes (if ready escape via belt is not possible)		O ₂ %LEL
36	Coal Feeders		O ₂ %LEL, CO
37	Coal Scalping Screens	4	O ₂ %LEL
38	Compressed Air Receivers		O ₂ %LEL
39	Condenser Steam Space	4x4	O ₂ %LEL
40	Condenser Water Boxes	4x4	O ₂ %LEL
41	CW Conduits (including constant head towers)	2x4	O ₂ %LEL
42	CW Make-up Conduit	1	O ₂ %LEL
43	CW Pumps	2x4	O ₂ %LEL
44	Cooling Towers - Operational	2	O ₂ %LEL
45	Demineralisation Storage Tanks	2	O ₂ %LEL
46	Demineralisation Vessels	6	O ₂ %LEL
47	Demineralisation Plant Degasser Tanks	2	O ₂ %LEL, CO ₂
48	Demineralisation Plant Effluent Pump Pit	1	O ₂ %LEL, ammonia (NH ₃)
49	Domestic Water Storage Tank	1	O ₂ %LEL, Cl ₂
50	Ducts – Primary Air Duct, Secondary Air Duct, Crossover Duct (between Air heaters)		O ₂ %LEL
51	Feedwater Tank Including Domes	4x1	O ₂ %LEL
52	Filtered Water Tanks	2	O ₂ %LEL
53	Gas Turbine Fuel Oil Tanks ^(b)	3	O ₂ %LEL
54	Gas Turbine Plenum Chamber	1	O ₂ %LEL, CO
55	Generator Including Terminal Box	4	O ₂ %LEL, CO ₂
56	Generator Circuit Breaker & 20 kV Phase Isolated Busbar	4	Unit 1: O ₂ %LEL, SF ₆ Units 2, 3 & 4: O ₂ %LEL
57	Hydrogen Plant Low Pressure Tank	1	O ₂ %LEL
58	HP Heaters		O ₂ %LEL
59	LP Heaters		O ₂ %LEL
60	L.P. Turbine and Steam Space	4x2	O ₂ %LEL
61	Polisher Regeneration Vessels	4	O ₂ %LEL
62	Polisher Vessels	2x4	O ₂ %LEL
63	Precipitators (excluding Roof Beams)	4	O ₂ %LEL, SO ₂
64	Precipitators (Roof Beams)	4x28	O ₂ , %LEL, CO ₂ , SO ₂
65	Pretreatment Plant Effluent Pit	1	O ₂ %LEL
66	Pretreatment Plant Gravity Filter Vessels	3	O ₂ %LEL Continuous monitoring for O ₂ .

Ref	Confined Space	No.	Tests Required
67	Pretreatment Plant Caustic Storage Tank	1	O ₂ %LEL, mercury
68	Pulverisers	4x6	O ₂ %LEL, CO
69	Raw Water Storage Tanks	2	O ₂ %LEL
70	Raw Water Tanks 0.4 ML	1	O ₂ %LEL
71	Reclaim Conduit	1	O ₂ %LEL
72	Reclaim Tanks	4	O ₂ %LEL
73	Reserve Feedwater Tank	4x1	O ₂ %LEL
74	Sewage Pump Pits and Sewage Pits	6	O ₂ %LEL, H ₂ S Continuous monitoring for all.
75	Stormwater Drains		O ₂ %LEL, H ₂ S
76	Transformers ^(b)		O ₂ %LEL, CO
77	Treated Water Drains Tank	4	O ₂ %LEL
78	Turbine Hall Cranes - 'A' and 'B'	4	O ₂ %LEL
79	Turbine Front Standard ^(b)	2	O ₂ %LEL
80	Turbine Oil Tanks ^(b)	4x1	O ₂ %LEL, Oil Mist

(a) This space may be contaminated with lime dust. Ensure O₂ and %LEL is safe. Minimum protection is goggles and a particulate filter type P1 or P2.

(b) This space may be contaminated with organic vapours. Ensure O₂ and %LEL is safe. Minimum protection is an organic vapour filter type A2.

Appendix 3: List of Confined Spaces and Test Requirements – Wivenhoe Power Station

Note: Confined spaces should be ventilated before entry

	Confined Space	No.	Test Required
1	Air Receivers, Oil / Air Receivers	2 x 2	O ₂ , %LEL, CO, Oil Mist
2	Air conditioning ducting		O ₂ %LEL
3	Cooling Water Strainers	2	O ₂ , %LEL
4	Diesel Tank – underground ^(a)	1	O ₂ , %LEL
5	Dewatering Air Receivers – pumps (x5) and turbine	2 x 6	O ₂ , %LEL, CO
6	Draft Tube Bearing area	2	O ₂ , %LEL, CO ₂ , H ₂ S
7	Drainage Pump Pit – Main Pit Below Walkway	2	O ₂ , %LEL, CO ₂ , H ₂ S
8	Drainage Pump Pit - Drywell	2	O ₂ , %LEL, CO ₂ , H ₂ S
9	Generator Enclosure with top in place	2	O ₂ , %LEL, CO ₂
10	Generator Winding Head, bottom section / top section	2	O ₂ , %LEL, CO ₂
11	HV (13.8 kV) Enclosures – isolators and circuit breakers	2 x 3	O ₂ , SF ₆ , CO ₂
12	Oil Tanks ^(a) – Governor sump (x2), discharge v/v sump (x2), 20kL storage tank, hydro cyclone storage tank	6	O ₂ , %LEL
13	Pump Gland area	2	O ₂ , %LEL, CO ₂ , H ₂ S
14	Sewerage Tank – Front Office	1	O ₂ , %LEL, H ₂ S Continuous monitoring for all.
15	Sewerage Tank – Standby Tank	1	O ₂ , %LEL, H ₂ S Continuous monitoring for all.
16	Splityard Creek Drywell	1	O ₂ , %LEL, CO ₂ , CO, H ₂ S
17	Splityard Creek Silo	2	O ₂ , %LEL, CO ₂ , H ₂ S
18	Splityard Creek Outlet Tunnel ^(b)	1	O ₂ , %LEL, CO ₂ , H ₂ S
19	Thrust Bearing Friction Brake area	2	O ₂ , %LEL, CO ₂
20	Transformers ^(a) - Main	2	O ₂ , %LEL, CO
21	Transformer Drainage Tanks – inlet, settling and outlet chambers	3	O ₂ , %LEL
22	Turbine Gland area below Guide Vane Links	2	O ₂ , %LEL, CO ₂ , H ₂ S
23	Spiral Casings/ Pressure Conduits – turbine, draft tubes, pump, suction conduits ^(c)	2 x 4	O ₂ , %LEL, CO ₂ , H ₂ S
24	Water Tanks – compressor cooling tank, fire fighting tank, picnic tank, domestic water tank	4	O ₂ , %LEL, H ₂ S
25	Gantry Crane	1	O ₂ %LEL

(a) This space may be contaminated with organic vapours. Ensure O₂ and combustibles are safe. Minimum protection is an organic vapour filter type A2.

(b) Ventilation fans shall be running before entry is permitted.

(c) Purge by natural airflow, allow dry-out of surfaces before entry.

Appendix 4: List of Confined Spaces and Test Requirements – Wivenhoe Pipeline

Note: Confined spaces should be ventilated before entry

	Confined Space	No.	Tests Required
1.	Benarkin Pump Station Drainage Pit	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
2.	Benarkin Storage Tank	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
3.	Benarkin Swabbing Pit	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
4.	Caboonbah Pump Station Drainage Pit	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
5.	Caboonbah Storage Tank	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
6.	Caboonbah Swabbing Pit	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
7.	Moore Storage Tank	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
8.	Moore Pump Station Drainage Pit	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
9.	Moore Swabbing Pit	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
10.	Tarong Storage Tank	1	O ₂ %LEL, H ₂ S Continuous monitoring for all.
11.	Wivenhoe Pipeline		O ₂ %LEL, H ₂ S Continuous monitoring for all.
12.	Wivenhoe Pipeline Surge Tanks (7 off)	7	O ₂ %LEL, H ₂ S Continuous monitoring for all.

Appendix 5: List of Confined Spaces and Test Requirements – Starfish Hill Wind farm

Note: Confined spaces should be ventilated before entry

	Confined Space	No.	Tests Required
1.	Nil Confined Spaces Identified.		

Appendix 6: List of Confined Spaces and Test Requirements – Mt Millar Wind farm

Note: Confined spaces should be ventilated before entry

	Confined Space	No.	Tests Required
1.	Basement of Tower	35	O ₂ , %LEL, H ₂ S & SF ₆