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CS ENERGY PROCEDURE

WORKING IN CONFINED SPACES CS-PTW-HAZ-03

Responsible Officer: Corporate PTW Administrator
 Responsible Manager: Group Manager Operations Services
 Responsible Executive: Chief Executive Officer (CEO)

DOCUMENT HISTORY

Key Changes	Prepared By	Checked By	Approved By	Date
Rev 1 - First Consultation Draft – across sites	PTW Committee	PTW Committee	GM OPS	30/01/2004
Rev 2 - Inclusion of site comments and approved for release	PTW Committee	PTW Committee	GMOPS	15/03/2004
Rev 3 - Inclusion of process change and reviewed by Committee	PTW Committee	PTW Committee	GM OPS	18/10/2006
Rev 4 - Update to process to include OIC Point of Control (POC) locks	PTW Committee	PTW Committee	GM OPS	12/12/2006
Rev 5 - Review of procedure structure with site representatives	PTW Committee	PTW Committee	GM OPS	12/01/2007
Rev 6 - Form numbers inserted and updated Mick Harts Comments	PTW Committee	PTW Committee	GM OPS	26/03/2007
Rev 7 - Alistair Brown's review comments included	D Clarke	PTW Committee	A Brown	10/04/2007
Rev 8 - Included provisions from Confined Space Code of Practice 2011 and NEW CSE formatting	D Clarke	PTW Committee	A Brown	21/03/2012
Rev 9 - Reviewed and Released as a part of the PTW system changes and harmonisation legislation	D Clarke	PTW Committee	A Brown	31/10/2012
Rev 10 - General review for consistency of business process	S Watterston	PTW Committee D Clarke	A Brown	30/01/2018
Includes update of isolation section 6 including addition of risk assessment option. General document tidy up.			A Brown	30/05/2018
Updated table in Training & Competency section to reflect new 3 yearly refresher training	S Sauerwald	PTW Committee HSE Partners	P Matha	26/10/2020

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1 PURPOSE

The purpose of this procedure is to provide a mandatory process, guidance and information for planning, managing and maintaining safe entry and work within confined spaces. This procedure is designed to provide clear guidelines for all workers to follow when working in a confined space. Confined spaces are classified as high-risk areas and require specific planning, risk management and implementation of controls in order to minimise risks to acceptable levels before entry for work is authorised.

Entry to confined spaces across all CS Energy sites will be managed in accordance with the CS Energy Permit to Work (PTW) Manual and associated procedures.

2 SCOPE

This procedure is applicable to all personnel requiring entry and working within a confined space at CS Energy owned and/or operated assets. A person is considered to have entered the confined space if their upper body or head is within the confined space.

This procedure is a component of CS Energy's overarching PTW Management System. For additional information pertaining to the planning, administering and authorisation processes relating to isolations and PTW process, refer to the PTW Manual.



Note 1: The identification of, and work carried out in Confined Spaces shall be in accordance with:

1. WHS Regulations 2011 Part 4.3; See Appendix 19.5 for relevant extracts
2. Confined Spaces Code of Practice; See Appendix 19.5 for relevant extracts
3. Australian Standard 2865:2009; and
4. The Permit to Work Management System.

Note 2: Confined space entry procedures are not applicable nor prevent a person from (pending a risk assessment regarding an immersion in hazardous environment or atmosphere) inserting their hand or arm into a confined space while either testing or evaluating a confined space prior to entry.

3 WHAT IS A CONFINED SPACE?

A confined space means an enclosed or partially enclosed space that:

- Is not designed or intended primarily to be occupied by a person; and
- Is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and
- Is or is likely to be a risk to health and safety from:
 - An atmosphere that does not have a safe oxygen level; or
 - Contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion; or
 - Harmful concentrations of any airborne contaminants, or engulfment.

Confined spaces are commonly found in vats, tanks, pits, pipes, ducts, flues, chimneys, silos, containers, pressure vessels, underground sewers, wet or dry wells, shafts, trenches, tunnels or other similar enclosed or partially enclosed structures, when these examples meet the definition of a confined space in the **Work Health and Safety Regulation 2011**.

4 CONFINED SPACE IDENTIFICATION

Each site shall maintain a register of confined Spaces and is available to all personnel for reference in regard to the work they are carrying out.

The Site Manager shall delegate responsibility to maintain the confined space register. Any plant or structural modification that occurs where a new confined space is created it shall be updated into the confined space register. The confined space register shall be reviewed every 3 years.

4.1 Confined Space Identification Signage

- A permanently fixed Confined Space Entry sign shall be fixed to all openings for each confined space;
- The sign must be legible, displayed in a prominent position and remain visible when the opening is open;
- The sign must comply with the requirements of AS/NZS 2865 - Safe working in a confined space;
- All openings shall be uniquely identified; and
- Where permanent signage is impractical (e.g. confined space within a confined space or inadvertently created after removing valve seat) they must be identified in the site register or managed appropriately to clearly identify the confined space e.g. signage must be erected to sufficiently notify that the space is not safe to enter.

4.2 Identifying the Confined Space Nominated Entry Point

- In addition to fixed confined space signage, nominated entry point signage shall be erected adjacent to the entry point clearly indicating this is the nominated entry point to be used.
- A confined space board (ID tag board designed to allow personal ID tags to be attached indicating personnel are in the confined space) may suffice as nominated entry point signage.
- It is mandatory to hang ID cards when confined boards are used.
- The nominated open confined space points will be secured open by either:
 - An OIC Point of Control (POC) lock and tag. The tag will be printed from the nominated entry point descriptions nominated by an OIC in the APTW, or
 - An Operational WCD red lock and tag. The tag will be printed from the nominated entry point descriptions nominated by an OIC in the APTW
- The confined space documentation should be adjacent the nominated confined space entry point.



Note: Confined space documentation can be held using one of the two options:

1. The PTW board for the job on the provision that the PTW board is adjacent to the space; or
2. A confined space board at the entry point with confined space documentation attached.

4.3 Identification of confined space nominated ventilation points

- 'Danger - Do not Enter' barricade tape and signage is to be displayed across ventilation points so people do not inadvertently enter the space. Security devices such as POC white locks or

- Operational Confined Space WCD red locks are to be installed as required to secure ventilation points open.
- The OIC is to apply an OIC Point of Control (POC) lock and tag to every nominated ventilation point if the POC system is nominated.

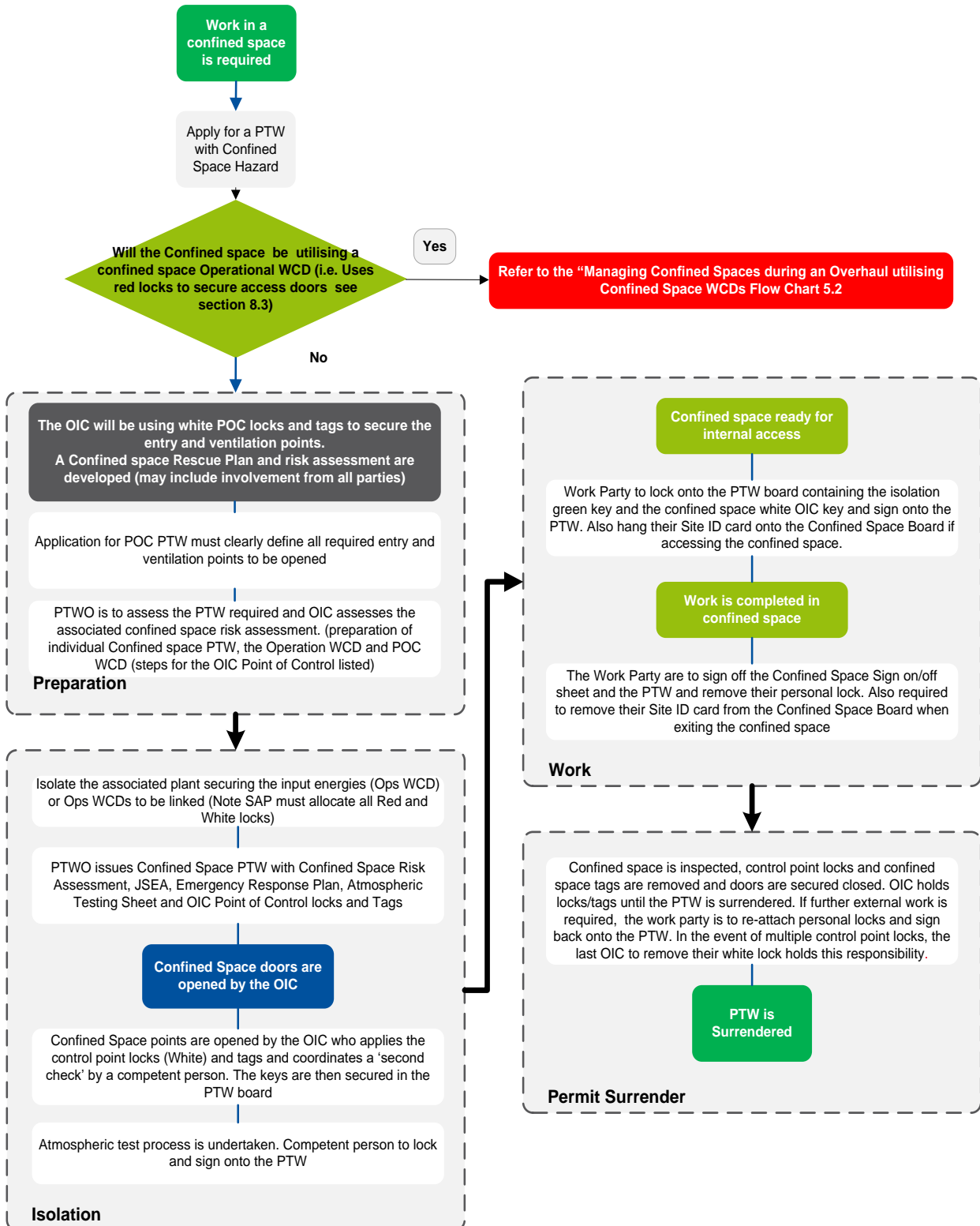
4.4 Confined Space Openings

Where openings are not nominated but are opened (e.g. forced cooling or to facilitate operational processes) and there is risk of inadvertent access, suitable barriers and/or signage is to be erected (e.g. where there is a risk of fall into the space exists, fixed barriers to be used in addition to Confined space 'Danger – Confined Space' barricade tape.

5 CONFINED SPACE PROCESS

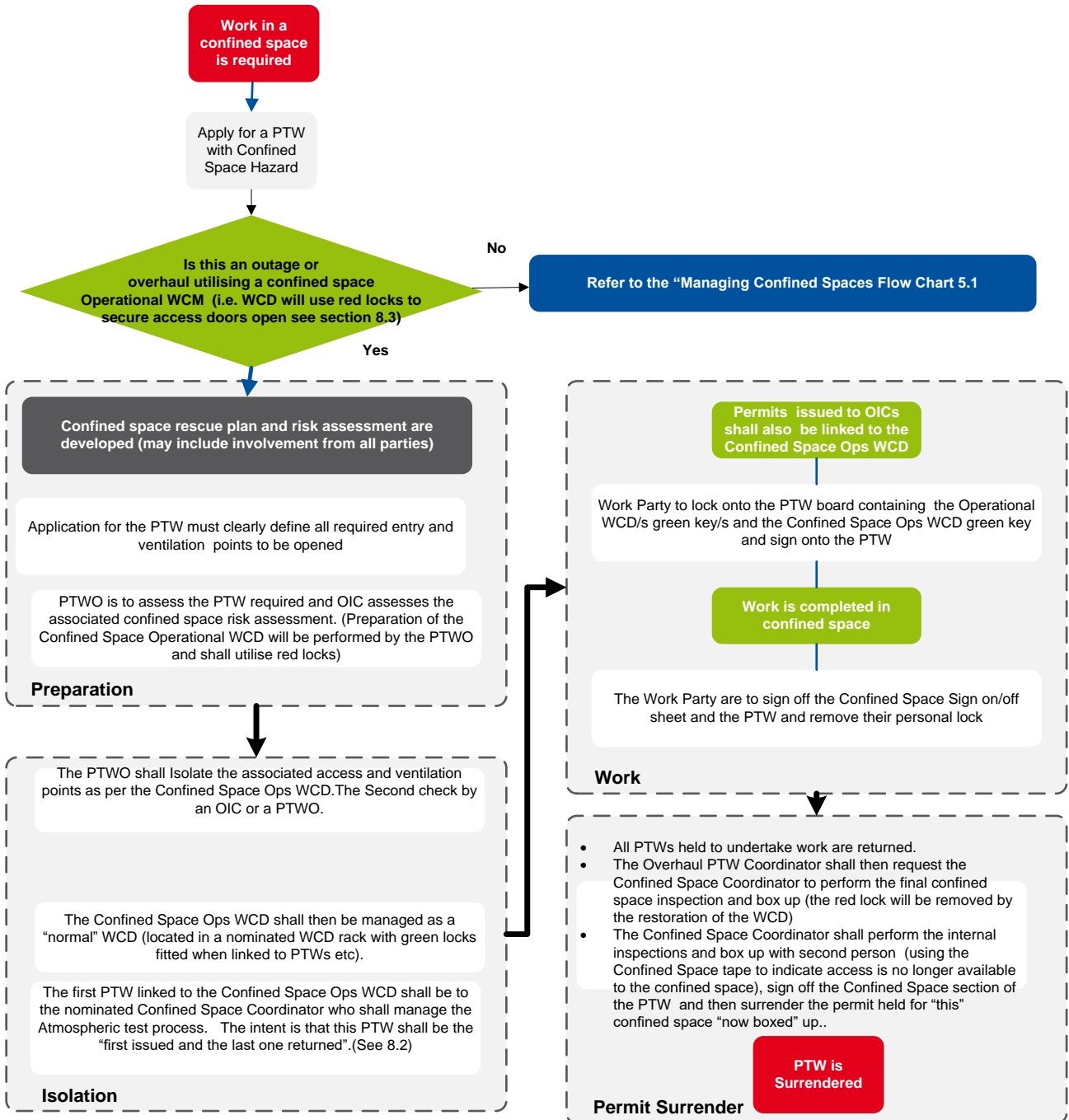
5.1 Managing Confined Spaces Flow Chart

(Each OIC manages their White POC Locks)



5.2 Managing Confined Spaces Flow Chart

(Overhauls etc. with the Confined Space Coordinator managing the nominated Confined Space Access and Ventilation Points)



6 CONFINED SPACE ISOLATION

All confined space isolations must be completed in accordance to the CS Energy PTW Manual and associated procedures. These procedures reflect the relevant Legislation, Codes of Practice and Australian Standards.

6.1 Isolation Principles

Confined space isolations must ensure:

1. All potentially hazardous services and relevant plant are isolated prior to any person entering the confined space and for the duration of the work;
2. The isolation/s suitably prevents:
 - a) Introduction of contaminants through piping, ducts, vents, drains, conveyors, service pipes and fire protection equipment etc.
 - b) The activation or energising of machinery or plant in the confined space.
 - c) The activation of plant/services outside the confined space that could adversely affect the space.
 - d) The release of any stored or potential energy. and/
 - e) The inadvertent use / starting / operation of electrical equipment hence preventing injury, electric shock and/or sparking.



Note: Point C above refers to any permanent or semi-permanent plant that is identified prior to the isolation being performed and will not be relocated (i.e. fixed or “known” plant). (i.e. A 500KW diesel driven air compressor bolted to the floor adjacent the confined space opening, a coal feeder cleaning belt starting if the confined space access is to a mill, a pneumatic dust transfer vessel with a depressurising vent to atmosphere adjacent to the confined space access point etc.

Examples of portable generators or pumps etc. introduced post the issue of the PTW will be managed by the OIC and the JSEA etc.

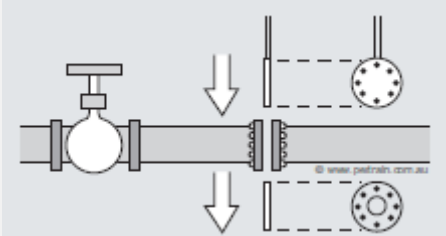
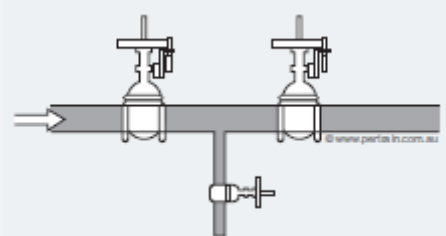
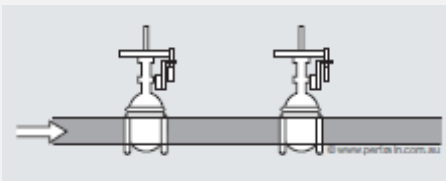
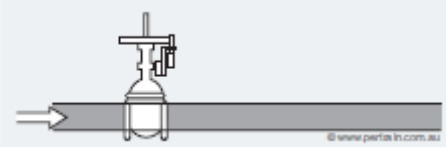
3. A Positive isolation or a Proven isolation should be used where possible for the control of hazardous services / substances / possible contaminants or gases etc., however, note that:
 - a) Where neither of the above isolation methods are achievable, any alternative isolation/s shall be risk assessed and shall be acceptable only when such results in a controlled risk rating of “Low” which achieves the equivalent level of safety; and
 - b) Consideration shall be given to implementing a plant modification process to allow for a positive isolation or similar for future isolation purposes.




Note: Engineering, Health and Safety, Chemical, Maintenance and Operational expertise and opinion may be required to undertake the risk assessment process and evaluate the controlled risk ratings. **The risk assessment must be approved at manager level.**

6.2 Hierarchy of common controls for isolation of Liquids, gases & vapours

The table below shows common methods to isolate liquids, gases and vapours. The items are ranked in order of the hierarchy of controls, from the highest form of effective isolation to the lowest.

Hierarchy of Control	Method	Description
1 Most Effective	Positive Isolation: Removal/Blanking 	<p>Remove a section of piping or a conductor to create a break or gap. Apply a Danger tag to the removed section. Apply a lock and Danger tag to the blank of the isolation and to the isolated valves where possible.</p> <p>Blanking is the fixing of a device to piping to prevent product or energy flow. Blanking may be combined with the closure of a single valve.</p>
2	Proven Isolation Double Block and Bleed 	<p>Close two valves in series and open a valve or remove a plug to remove by bleeding the material contained in the piping between the two valves. Ideally the two block valves are located relatively close together. Ensure that the bleed vent to a safe location and is visible and accessible to confirm an effective isolation.</p> <p>Apply a lock and danger tag to the vent and isolated valves.</p> <p>Assess the integrity if this isolation by checking whether and process material is leaking from the bleed valve.</p>
3	Double Block 	<p>Double block isolation involves closing two valves in series between the process and the equipment/plant to be isolated. The two valves should be as close together as possible. Apply a lock and Danger tag to both valves.</p>
4 Least Effective	Single Valve 	<p>Single valve isolation closing a single valve between the process and the equipment/plant being isolated. Lock and secure the valve to prevent a change of status.</p> <p>If a single valve is the dependent isolation, perform a risk assessment to determine the integrity of the valve during the isolation process.</p>

 **Note:** While pipe work and valves are shown above, the same principles apply for duct work, dampers and vent or manhole openings.

6.3 Confined Space Isolations and Work under one PTW

In addition to the details required for any PTW to Work application, the PTW Applicant will also nominate:

- That the POC lock and tag process is required
- An OIC who holds the POC OIC Authorisation
- All required entry points and ventilation points

Confined space nominated entry points and nominated ventilation points shall only be opened by the POC OIC who:

- Has the authorisation to utilise the POC process for the work
- Holds an appropriate PTW for that piece of plant;
- Has the nominated points listed on their issued isolation POC sheet; and
- Has the appropriate OIC Point of Control (POC) lock/s and Point of Control (POC) tag/s;

The white keys shall be secured in their PTW board prior to the Work Party signing onto the PTW and work commencing.



Note: The Confined space PTW may also be linked to Operational WCD/s if there is a requirement to isolate plant and equipment with red locks and tags. Hence the PTW will be linked to a POC WCD and an Operational WCD. (In overhaul or outage periods, there may be a number of Operations WCDs and the one POC WCD linked to the Confined Space PTW)

6.4 Confined Space Isolations during Overhaul or Outage Conditions (Many PTWs)

6.4.1 Management of Confined Spaces

During overhaul or outage conditions, a number of confined space work areas may be accessed under numerous PTWs, often at the same time. While the conventional method of managing a confined space by the use of the OIC White POC locks and tags is acceptable (as detailed in the Flow Chart 5.1), an alternate method of securing the confined space entry points and ventilation points may be applied by the use of a Confined Space WCD (as detailed in the Flow Chart 5.2).

When multiple work parties are working simultaneously in the same confined space or where work in an individual confined spaces may have an impact on an adjacent confined space (e.g. work activities in the economiser may impact air quality in the air heater space), a Confined Space Coordinator shall be appointed.

Confined space access point isolations shall be managed by either:

1. A confined space operational Work Clearance Document (WCD) utilising red locks.
 - a) All confined space ventilation points and confined space access points are isolated by an Operational WCD that secures only the ventilation points and confined space access points with red locks and danger tags.
 - b) These WCD's shall be linked to each PTW allowing access (as done with any linked WCD).
 - c) The Confined Space Coordinator shall be issued the "first issued and the last returned" PTW linked to the Confined Space WCD hence effectively, the Confined Space Co-ordinator controls the Confined Space Isolation

- i. This Confined Space Co-ordinator's PTW shall carry the Work Details: "To co-ordinate the Confined Space WCD, air quality testing and perform the final Confined Space Box up.
- ii. No other work shall occur under "this PTW". (Note: This may be altered if there is a requirement to enter the confined space to conduct the initial air quality testing!)
- iii. The Confined Space Co-ordinator shall be required to develop the confined space risk assessment and rescue plan based on the air quality testing and final confined space box up
- iv. The Confined Space Co-ordinator shall co-ordinate the atmospheric testing to meet each OIC's risk assessment. Each OIC may rely on this testing to satisfy the air quality testing requirements associated with their permit.

OR

2. Each OIC shall manage access for their PTW by fitting their own POC locks and tags to the nominated confined space ventilation points and access points. The white keys shall be secured in their PTW board.

7 CONFINED SPACE ENTRY

The need to enter a Confined Space will be identified through the completion of a JSEA, which identifies the requirement for a:

- A PTW with the SAP hazard "Confined Space";
- Confined Space Risk Assessment (refer to S1891);
- Emergency Rescue Plan (refer to S1889); and
- Atmospheric Testing (refer to S1890).

Every confined space entry will require:

- A JSEA and Confined Space Risk Assessment to be completed;



Note: if a PICW is to be utilised, this activity should be performed jointly with the PICW and OIC. Note also that the OIC shall present the Task JSEA to the PTWO to be issued the PTW.

- Unobstructed entry and exit openings large enough to allow for emergency access;
- A standby person shall be assigned and is responsible for:
 - continually monitoring the controls in place and wellbeing of those inside the space;
 - Maintaining the below communication process with the work party and others (e.g. duty ERT) while the work is being carried out; and
 - Initiating appropriate emergency response procedures according to the Emergency Rescue Plan when necessary.
- A communication system to enable communications between inside/outside the confined space to summon help in an emergency.
- An Emergency Rescue Plan coordinated/developed by the OIC in consultation with the workers and the Emergency Rescue Team involved.
- A rehearsal of the Emergency Rescue Plan as determined by the risk presented in performing the rescue. The rehearsal should occur prior to entering the confined space.



Note: It is acceptable to perform 'desktop' Rehearsals for low risk rescues. This will be at the discretion of either the OIC or ERT in lieu of an actual rehearsal on the actual plant. Particular attention must be given to the ability of the rescue Team to access the work area.

- Specific retrieval equipment (if required) and a competent user/s located at the entrance to the confined space.
- Initial atmospheric testing should:
 - normally be performed by the Tester remaining "outside" of the Confined Space by inserting a sample probe at appropriately selected access holes, nozzles and openings (top, middle and bottom should be tested). Ongoing testing requirements should be included in the risk assessment. Monitoring results (S1890) shall be attached to the Entry Permit.
 - In the event that internal access into the confined space is required to perform the testing, the Tester will be required to perform the work under a PTW and be directed which control measures to undertake pending the JSEA associated with the task (i.e. Use of a BA)
- The PTW Sign on / sign off sheet, PTW Board Lock on / off and the confined space board.



Note 1: CS Energy Emergency Response Teams (ERT) are trained in confined space rescue and are aware of the risks involved in any confined space entry for the purposes of rescue.

7.1 Confined Space Openings and Nominated Entries

There may be a number of reasons that require the opening any access and ventilation points (i.e. to access for work, to allow ventilation, assist the Operations Team in force cooling etc). The reason for such will dictate which actions are to be taken.

The OIC will nominate all required entry points and ventilation points on the PTW Application.

Confined space nominated entry points and nominated ventilation points shall only be opened:

1. By a POC OIC who:
 - Nominates the points on the application
 - Holds an appropriate PTW for that piece of plant; and
 - Has the nominated points listed on their issued isolation POC sheet; and
 - Has the appropriate OIC Point of Control (POC) lock/s and Point of Control (POC) tag/s;
2. By a PTWO for a Confined Space Operational WCD
 - As per the Operational Confined Space WCD and fitted with a red lock and tag. Signage and tape must be fitted to prevent unauthorised access into the area (which can be removed by the OIC when or if required).
3. By a PTWO for an operational reason:
 - If it is designed and safe to be opened to meet operational requirements however signage and tape must be fitted to prevent unauthorised access into the area



Note 1: If an opening it is not to be used as a nominated entry point or nominated ventilation point and requires the opening to assist with work (i.e. lighting, scaffold), it is to be barricaded and signed to prevent personnel accidentally entering the space via this point.

7.1.1 Confined Space Nominated Entry Point (without the potential to cause entrapment)

Where a confined space has a nominated entry point that has no potential to cause entrapment (e.g. open pits or drains where the entry or exit cannot be locked, or access or exit cannot be compromised) additional signage must be fitted to clearly show the nominated entry point. No locking or tagging is required.

7.1.2 Confined Space Nominated Entry Point (potential to cause entrapment)

Where a confined space has a nominated entry point that can be closed to cause entrapment (e.g. doors, lids, hatches, manhole covers) it is to be considered as a “Control Point” and is required to have:

- An additional sign erected at the entry point nominating it as an entry point; and
- Either a POC lock and control point tag or a Operational Red Lock and Danger Tag securing the doors / hatches etc. open.

7.2 Multiple Workgroups Operating Simultaneously in the Same Confined Space

7.2.1 A Confined Space Coordinator

The primary role is to assist with the management of work and access to confined spaces.

A Confined Space Co-ordinator shall be nominated or appointed when:

- There are two or more PTW work parties conducting work inside a common confined space, or
- Work occurring in a confined space that may impact the atmosphere of another adjacent or downstream confined space (i.e. Work in the Superheater area effecting the air quality in the Air Heater space).

The Confined Space Coordinator shall:

- Be appointed during Overhauls and Unit outages or under other circumstances as deemed appropriate.
- Be nominated by the Overhaul or Outage Manager (or Maintenance Superintendent where there is no outage or overhaul).
- Coordinate activities within the nominated confined space/s.
- Coordinate effective communication and activities affecting the atmosphere between all OIC's working in the confined spaces.
- Have overriding authority to determine if a planned work activity should or shouldn't commence or continue.
- Manage the confined space box-up when a confined space Operational WCD is utilised to secure the access and ventilation points (as the Confined Space Coordinator's PTW shall be the “last” PTW linked to the confined space Operational WCD).

A coordination meeting is required between all OIC's regarding multiple workgroups carrying out different tasks in the one confined space. The meeting (of which minutes are to be recorded) may be held at:

- the start of each shift, or
- the transfer of OIC, or

- where the conditions change within the confined space that introduces the possibility of new hazards, or
- where a new permit is issued



Note 1: Both the PTW OIC and PICW will be required to liaise accordingly with the Confined Space Coordinator

7.3 Confined space within a confined space

The PTW will be issued allowing entry to the confined space. Every nominated entry point and nominated ventilation point to be opened must be identified on the WCD isolation sheet or POC Isolation Sheet and be allocated its own Red lock or OIC Point of Control (POC) lock and warning - Point of Control (POC) tag.

A confined space within a confined space must be managed to ensure entrapment will not occur within either space. This will require the inner confined space to be treated as an independent confined space. The JSEA should reflect the hazards identified for the inner confined space (e.g. JSEA will incorporate an additional stand-by person and atmospheric testing requirements for the inner confined space). The use of a second confined space board at the inner access point is not mandatory as the Workers Personal Site Access Card will be fitted to the outer Confined Space board. This does not remove the authority of the OIC to implement a control that documents Workers entering the inner confined space.

Standby Persons

- It is a requirement at CS Energy that all confined space entries have a standby person for every confined space entry;
- It is permissible, where plant configuration permits (e.g. two entry points side by side, etc.), a confined space standby person can fulfil the role for multiple confined space entry points;



Note: Work Health and Safety Regulation 2011 Regulation 69 states;

A person conducting a business or undertaking must ensure that a worker does not enter a confined space to carry out work unless the person provides a system of work that includes: -

- a) Continuous communication with the worker from outside the space; and
- b) Monitoring of conditions within the space by a standby person who is in the vicinity of the space and, if practicable, observing the work being carried out.

7.4 Equipment / Materials Used in Confined Spaces

- All portable electrical equipment shall be connected to, individually or collectively to a safety switch Residual Current Device (RCD), with the device located outside the confined space.
- Ignition sources should not be introduced into a confined space (from outside the space). If there is a possibility of introducing an ignition source (e.g. welding and grinding) the potential of causing a fire or explosion in the space is now present, particularly in a flammable atmosphere. A risk assessment directly identifying and controlling the risk must be completed and shall incorporate the Hot Work Procedure.
- No cylinder of compressed or liquefied gas, other than those used for self-contained breathing apparatus, shall be taken into the confined space. The gas supply shall be turned off at the cylinder valve when not in use. The gas cylinders shall be secured. Hoses supplying gas

operated equipment, shall be inspected and tested prior to installation, and guarded to avoid accidental damage;

- The introduction of chemicals and paints etc. into a confined space that may create a flammable or hazardous environment must also be a risk assessed.
- All temporary lighting (including emergency lighting) shall be protected against damage.

7.5 Risk Assessing Confined Spaces

Prior to entry into a confined space a competent person must complete a JSEA, Confined Space Risk Assessment and Emergency Response Plan specific to the work required to be undertaken.

The JSEA shall take into account the following:

- The work required to be done, including the need to enter the confined space;
- The range of methods by which the work can be done;
- The hazards involved and associated risks involved with the actual method selected and equipment proposed to be used;
- The competence of the persons to undertake the work;
- Impacts on or from works in adjacent areas;
- The hierarchy of control methods; and
- The first aid and emergency response requirements; and
- The requirements for entry/exit and ventilation of the confined space.

The Confined Space Risk Assessment shall take into account the following:

- The nature of the hazards of that confined space and impacts from works in adjacent areas;
- The hazards involved and associated risks involved with the actual method selected and equipment proposed to be used;
- Atmospheric hazards and additional required atmospheric testing; and
- Stand-by and emergency response requirements.

The Emergency Response Confined Space Rescue Plan (S1889) shall take into the account the following:

- Emergency response requirements;
- Emergency equipment requirements;
- Trained Rescue Personnel required;
- Rescue plan and rehearsal;
- First aid procedures; and
- Assessed by the site Emergency Response Team.

The JSEA, Confined Space Risk Assessment and Emergency Response Plan shall be reviewed:

- Each time a confined space is made available for entry (prior to entry occurring);
- When additional or new hazards have been introduced into the confined space;

- Any time the conditions change inside the confined space;
- Whenever there is evidence that the initial assessment is no longer valid.
- For impacts from works in adjacent areas.

7.6 Atmospheric Testing for Air Quality

Atmospheric testing shall be conducted prior to any entry or work inside a confined space. Initial atmospheric testing should be done outside the Confined Space by inserting a sample probe at appropriately selected access holes, nozzles and openings (top, middle and bottom should be tested). Ongoing testing requirements should be included in the risk assessment. Monitoring results (S1890) shall be attached to the Entry Permit.

Testing must be undertaken in a manner that encompasses all possible atmospheric related hazards as specified on the Confined Space Risk Assessment of that particular confined space.

The Atmospheric Tester shall be competent, authorised and have locked and signed onto the Permit that allows entry to the confined space to conduct an air quality test. This task shall be included on the relevant Confined Space Risk Assessment assessing all the associated risks.

Prior to the entry of the work party, the atmosphere of a confined space must meet the following minimum requirements, analysed as required by the risk assessment:

- The concentration of any flammable gas, vapour or mist in the atmosphere of the space is less than 5% of its LEL (lower explosive level) if this is not reasonably practicable that when it is equal to or greater than 5% but less than 10% of its LEL that continuous monitoring is established or workers are immediately removed from the space. If it is equal or greater than 10% of its LEL then all workers must be removed from the space.
- The atmosphere contains an Oxygen (O₂) concentration of no less than 19.5% and no greater than 23.5% by volume
- The concentration of any other atmospheric contaminant (for example, ammonia, carbon monoxide, chlorine, oil, carbon dioxide etc.) is no greater than the Exposure Standard expressed as a Time Weighted Average (TWA); and
- There is no potential for the level of atmospheric contaminant to fall outside the above ranges.
- All results from air quality tests shall be recorded timely and accurately on the atmospheric testing sheet documentation.
- The Confined Space Risk Assessment must nominate the frequency or intervals for air quality testing. Where air quality conditions are modified or changed in a confined space (e.g. release of airborne contaminants) a risk assessment must be completed to identify the need for retesting or continuous monitoring of the air quality.

7.7 Purge and Cleaning

Purging (ventilation) and cleaning (e.g. hose-down) of a confined space prior to entry is an effective control measure.

Purging should be completed using a ventilation device consistent with the Confined Space Risk Assessment requirements. At no stage is pure Oxygen to be used for the purging process as it may lead to an Oxygen enriched environment, which holds the potential to develop into an explosive environment.

Cleaning must be performed from outside of the confined space where possible. If cleaning is required to be performed from within a confined space control will need to be implemented to minimise risk.

Thorough cleaning must also be performed at the completion of every job inside a confined space where all foreign materials and equipment are removed from that confined space.

7.8 Confined Space Rescue and Retrieval

All personnel involved with the rescue from a confined space, should be aware and have rehearsed the rescue procedure. (See note Section 7 Confined Space Entry regarding Rehearsals)

It is mandatory for the personnel in control of the confined space (normally the OIC or both the OIC and the PICW) to develop an **Emergency Rescue Plan** (S1889 – Confined Space Rescue Plan) for each confined space PTW. The Work party must be made aware of this plan prior to commencing work.

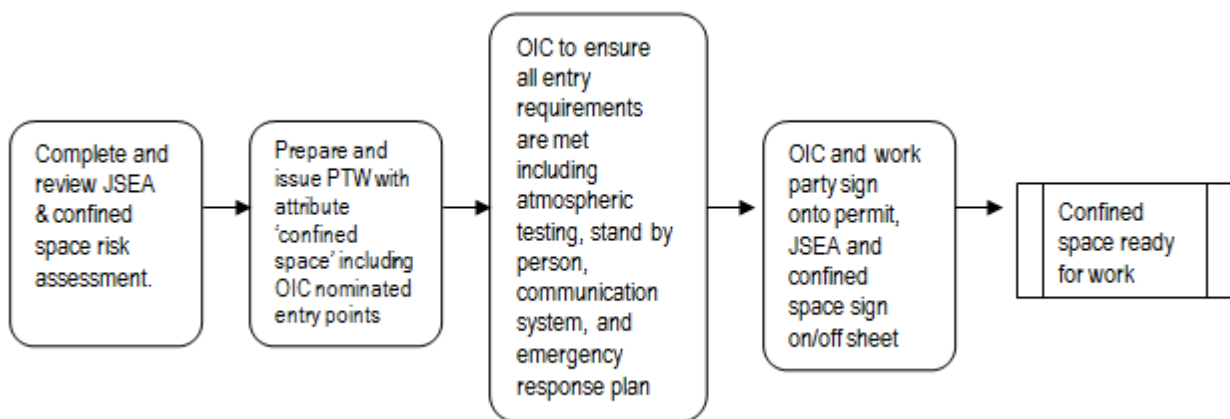
In the event that a number of OICs working in the confined Space, no one OIC shall be in control of the confined space and each OIC shall prepare a rescue plan specific to their PTW and in consultation with the Confined Space Co-ordinator. This rescue plan can be generic or specific to a high-risk activity/work. The rescue plan is to be assessed by the site Emergency Response Team.

Specific confined space Emergency Rescue Plans will be managed at each CS Energy site as per their sites processes and resources. This will be consistent with CS Energy Emergency Response Team procedures and their current organisational arrangements.



Note: The stand-by person/s shall not enter a confined space. Their responsibility is to initiate the confined space emergency response plan.

8 PRIOR TO ENTRY



8.1 PTWO

PTWO Responsibilities include:

- Confirming the “Hazards” section of the Application for PTW has been completed;
- Confirming all confined space nominated openings have been listed on the APTW;
- Opening confined space openings for ventilation and place danger tape across openings;
- Confirming a Confined Space Entry Sign On/Off Sheet and Atmospheric Testing Form are included as part of the documentation;
- Isolating the plant in accordance with the PTW Manual giving special consideration to:

- Draining;
- Purging; and
- Ventilation.
- Confirming that all confined space nominated entry points and nominated ventilation points have been listed on the isolation sheet (if a POC WCD is utilised, that the associated Point of Control (POC) locks and tags are provided to the OIC).

8.2 OIC

Responsibilities include:

- Completing the Application for PTW listing all required confined space openings (may also be submitted by a planner), JSEA, Confined Space Risk Assessment, Emergency Response Plan (in conjunction with the relevant PICW) and, then arranging for review by a competent person;
- Arranging for the provision for a standby person/s where required by in the Confined Space Risk Assessment;
- Confirming (in conjunction with the relevant PICW) workers are trained and competent to enter a Confined Space.
- Liaising with all relevant personnel associated with the task and managing the risks (i.e. Confined Space Coordinator, Work Party, specialists, ERT etc.)
- Managing the Task
 - Accept the PTW
 - If required, perform the POC isolations on the required confined space access and ventilation points.
 - Ensure the OIC and the Second Checker perform their roles as detailed on the POC WCD.
 - The white POC lock key/s stored in the lockable compartment in the PTW board once the POC isolations are applied.
 - Confirm with the Work party that all nominated entry points and nominated ventilation points are open and locked and tagged (POC locks and tags if relevant).
 - Issue the Authorisation to Work to the PICW if one is nominated.
- Coordinating (in conjunction with the relevant PICW) any preparatory requirements for personnel retrieval (e.g. Trained Rescue Personnel, Standby Personnel);
- Ensuring all entrances must not be obstructed by fittings or other equipment that could impede a rescue;
- Coordinating any required Air Quality Testing for work within the confined space;
- Erecting barricade tape and/or signs to control entry;
- Maintaining the integrity of the access process and ensuring that all work party members and others who require entry to the confined space:
 - Sign onto JSEA's, PTW Sign On/Off Sheet and Confined Space Entry Sign On/Off sheet;
 - Fit their Personal Site Access card to the access monitoring board.
- Involving the PICW and personnel entering the confined space in discussion and rehearsal of first aid and Emergency Response Plan;

- Ensuring Residual Current Devices (RCD's) are provided for electrical equipment used in the confined space; and
- Ensuring that the requirements of the PTW for confined space entry are fulfilled;
- Managing the Sign on / off the Permit regarding acknowledgement on completion of work that all persons have left the confined space.

8.3 Person in Charge of Work

Responsibilities include:

- Coordinate and monitor the controls identified in the JSEA
- Revise the JSEA if new hazards are identified or introduced into the work area and liaise with the OIC to determine if there are any impacts on the boundaries of isolation
- Notify the Work Party and OIC of any changes to JSEA controls
- Communicate with Work Party and OIC throughout the work activity
- Maintaining the integrity of the access process and ensuring that all work party members and others who require entry to the confined space:
 - Sign onto JSEA's, PTW Sign On/Off Sheet and Confined Space Entry Sign On/Off sheet;
 - Fit their Personal Site Access card to the access monitoring board.
- Maintain the status of the PTW Board and documentation
- Communicate with the OIC if there is a change of scope of work
- Work party members are suitable trained and competent

8.4 Work Party

Responsibilities include:

- Seeking authorisation from the OIC to enter to the confined space;
- Advising the OIC of the activities, plant, tools, material, chemicals and processes that will be undertaken in the confined space;
- Notifying the OIC of any impairment that may make them unable to safely perform a task in the confined space;
- Ensuring that competency and training currency is maintained for confined space entry;
- Ensuring that all required PPE is correctly utilised;
- Checking that the confined space atmospheric testing has been conducted;
- Ensuring that they review and are signed on the JSEA, PTW Sign On/Off Sheet and Confined Space Entry Sign On/Off sheet; Fit their Personal Site Access card to the access monitoring board when in the confined space
- Affixing personal locks to PTW board.
- Notifying the Standby Person if there is an issue inside the space
- Exiting the space if atmospheric monitors indicate an unsafe environment (go into alarm), in the event of an emergency or if instructed by the Standby Person.

8.5 Standby Person

Responsibilities include:

- Identifying and testing method of continuous communication with OIC and persons working in the confined space;
- Ensuring any emergency recovery equipment, monitoring equipment and Emergency Response Plan are in place prior to work commencing;
- Ensuring they remain outside the confined space at all times; and
- Ensuring documentation for entry in to the confined space is located in proximity to the nominated entry point of the confined space.

8.6 Competent Atmospheric Testing Personnel

Responsibilities include:

- Undertaking Atmospheric Testing for air quality:
 - with calibrated equipment;
 - challenging the test equipment prior to use;
 - in accordance with the hazards identified in the JSEA & Confined Space Risk Assessment;
 - in a manner that ensures the entire Confined Space is assessed; and
 - utilising appropriate personal protective equipment.
- Recording Air Quality Test Results on the Atmospheric Testing form (S1890).

8.7 Confined Space Coordinator

Responsibilities include:

- Coordinate effective communication and activities affecting the atmosphere between all OIC's work in the confined spaces.
- Will have overriding authority to determine if a planned work activity should or shouldn't commence or continue.
- Being issued the first Confined Space PTW that is linked to the confined space Operational WCD (as the Confined Space Coordinator's PTW shall be the "first" PTW linked to the confined space Operational WCD and the last PTW surrendered, hence effectively allowing the Confined Space Coordinator to manage access to the confined space).
 - Perform the confined space box-up when a confined space Operational WCD is utilised to secure the access and ventilation points (as the Confined Space Coordinator's PTW shall be the "last" PTW surrendered that is linked to the confined space Operational WCD).
- Instigating a coordination meeting as required between all OIC's regarding multiple workgroups carrying out different tasks in the one confined space. The minuted meeting may be held at:
 - the start of each shift, or
 - the transfer of OIC, or

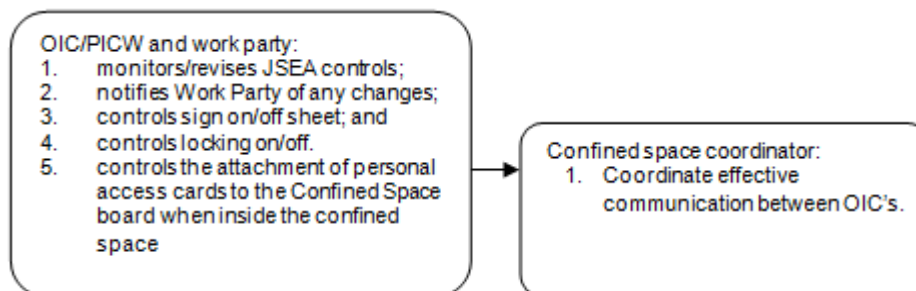
- where the conditions change within the confined space that introduces the possibility of new hazards, or
- where a new permit is issued
- The Confined Space Co-ordinator shall co-ordinate the atmospheric testing to meet each OIC's risk assessment. Each OIC may rely on this testing to satisfy the air quality testing requirements associated with their permit

8.8 Competent Person (Confined space trained and plant knowledge)

Responsibilities include:

- Reviewing the JSEA, Confined Space Risk Assessment and Emergency Response Plan; and
- Endorsing the Application for PTW and acknowledging an acceptable review.

9 WORKING IN A CONFINED SPACE



9.1 PTWO

Responsibilities include:

- Ensuring the plant has been isolated for the plant/scope of work requested and that the isolation has been verified as effective in containing the energy source.
- Advising the OIC of any change in conditions associated with plant (including co-joined boilers – refer site specific procedure).
- Receiving approval from the OIC prior to changing any conditions associated with the confined space

9.2 OIC

Responsibilities include (note that some of these responsibilities will pass onto the PICW if utilised):

- Managing entry to the confined space.
- Monitoring and reviewing the JSEA, particularly if new hazards are identified or introduced into the work area and instruct the work party of any changes (this may involve the ceasing of work activities and exiting of the Confined Space);
- Maintaining the integrity of the work party sign on/off and lock on/off process;
- Ensuring any individual (who is not part of the work party) who is required to enter the confined space are briefed and signed onto the JSEA, PTW Sign On/Off Sheet and Confined Space Entry Sign On/Off sheet;

- Maintaining the integrity of the PTW Board and documentation;
- Coordinating the safety controls as defined within the JSEA (e.g. air monitoring may identify the need to cease work and exit the Confined Space);
- Cancelling entry permission when the work is complete or when controls detailed in the risk assessment are not being met;
- To identify if more than one stand-by persons required;
- Using intrinsically safe lighting where indicated in the JSEA;
- General lighting shall be totally encapsulated in shatterproof housing;
- Ensuring suitable equipment is provided including personal protective equipment, equipment for emergencies including rescue equipment, first aid, fire suppression;
- Ensuring all electrical equipment is shutdown when the confined space is not attended for extended periods;
- Ensuring compressed gas cylinders, welding generators and electrical distribution boards are not taken inside into the confined space;
- Providing adequate ventilation to extract welding fumes and prevent build-up of atmospheric contaminants;
- Ensure all liquid and solid residues that may contribute to the release of flammable vapours or gases raising the concentration above the 5% LEL are removed; and
- Liaise accordingly with the confined space coordinator when required.
- Ensure all persons have left the space when work is completed.

9.3 PICW

Responsibilities include:

- Managing entry to the confined space.
- Monitoring and reviewing the JSEA, particularly if new hazards are identified or introduced into the work area and instruct the work party of any changes (this may involve the ceasing of work activities and exiting of the Confined Space);
- Maintaining the integrity of the work party sign on/off and lock on/off process;
- Ensuring any individual required to enter the confined space are briefed and signed onto the JSEA, PTW Sign On/Off Sheet and Confined Space Entry Sign On/Off sheet;
- Maintaining the integrity of the PTW Board and documentation;
- Coordinating the safety controls as defined within the JSEA (e.g. air monitoring may identify the need to cease work and exit the Confined Space);
- Cancelling entry permission when the work is complete or when controls detailed in the risk assessment are not being met;
- Using intrinsically safe lighting where indicated in the JSEA;
- General lighting shall be totally encapsulated in shatterproof housing;
- Ensuring along with the OIC that suitable equipment is provided including personal protective equipment, equipment for emergencies including rescue equipment, first aid, fire suppression;

- Ensuring all electrical equipment is shutdown when the confined space is not attended for extended periods;
- Ensuring compressed gas cylinders, welding generators and electrical distribution boards are not taken inside into the confined space;
- Providing adequate ventilation to extract welding fumes and prevent build up of atmospheric contaminants;
- Ensure all liquid and solid residues that may contribute to the release of flammable vapours or gases raising the concentration above the 5% LEL are removed; and
- Liaise accordingly with the confined space coordinator when required.
- Ensure all persons have left the space when work is completed or the PICW Work Authorisation form is surrendered.

9.4 Confined Space Coordinator

Responsibilities include:

- Coordinate effective communication and activities affecting the atmosphere between all OIC's work in the confined spaces.
- Will have overriding authority to determine if a planned work activity should or shouldn't commence or continue.
- Instigating a coordination meeting as required between all OIC's regarding multiple workgroups carrying out different tasks in the one confined space. The minuted meeting may be held at:
 - the start of each shift, or
 - the transfer of OIC, or
 - where the conditions change within the confined space that introduces the possibility of new hazards, or
 - where a new permit is issued

9.5 Work Party

Responsibilities include:

- Ensuring a stand-by person is present unless a risk assessment determines otherwise;
- Informing the OIC of new hazards identified or introduced into the work area;
- Following OIC instructions relating to specific work activity requirements and the timing of particular tasks;
- Following the controls identified in the JSEA;
- Following the appropriate work procedures;
- Signing the Confined Space Entry Sign On/Off Sheet each time they enter or exit the Confined Space;
- Exiting the confined space as quickly as possible whenever an order to evacuate has been given or an evacuation alarm sounds;

- Ensuring no cylinder of compressed or liquefied gas, other than those used for self-contained breathing apparatus, should be taken into the confined space;
- Ensuring compressed gas cylinders are turned off when not in use;
- Ensuring, where there is a potential for combustibles, portable electrical equipment should be intrinsically safe;
- Ensuring portable electrical equipment is protected by a safety switch device (RCD), with the device being located outside the confined space;
- Ensuring that personal protective equipment and emergency response equipment are fitted and selected to suit;
- Testing Residual Current Devices (RCD's) associated with electrical equipment used inside the confined space; and
- Ensuring all welding electrodes are removed from holders, when not in use, and placed so that accidental arcing and contact cannot occur.

9.6 Competent air quality testing personnel

Responsibilities include:

- Testing personnel shall not enter a confined space without a PTW;
- Undertaking Air Quality Testing in accordance with the hazards and interval between tests that are identified in the JSEA, Confined Space Risk Assessment & Atmospheric Testing Form;
- Recording Air Quality Test Results on the atmospheric test sheet;
- Ensuring calibration is maintained on the air quality test instruments;
- Ensuring challenge testing is conducted prior to performing tests;
- Ensuring air quality test instruments are serviceable;
- Testing personnel shall complete a JSEA and identify control measures to conduct atmospheric testing inside a confined space.

9.7 Stand-by Person

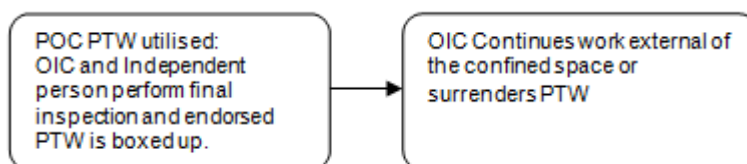
Responsibilities include (when nominated in the Confined Space Risk Assessment):

- Remaining outside or in close proximity to the confined space at all times;
- Ceasing work and evacuate people within the confined space if situation arises;
- Initiating the Emergency Rescue Plan (raise the alarm) in a rapid and timely manner;
- Use emergency recovery equipment as defined in the Confined Space Risk Assessment and Emergency Response Plan if competent as a trained rescue person (e.g. attempting non-entry rescue if proper equipment is in place and the rescue attempt will not present further hazards to the casualty);
- Operating and Monitoring equipment for the safety of the personnel in the confined space;
- Monitoring a device used to provide ongoing ventilation within the space;
- Maintaining visual contact with personnel within the Confined Space where possible;

- Maintaining a means of communication with personnel within the Confined Space such that ongoing checks can be made with the status of those inside and such that information can be relayed from those within the space;
- Not performing any other task other than that of required to be a stand-by person;
- Monitor the external conditions and activities that may impact on the health and safety associated with personnel working within the confined space;
- Sign on and identify themselves on the Confined Space Entry Sign On/Off Sheet;
- Control entry and egress into the confined space (ensure workers sign on and sign off accordingly);
- Informing the OIC of new hazards identified or introduced into the work area; and
- Monitor the wellbeing of the persons inside on the confined space and to alert them of the need to evacuate the space when conditions warrant.
- In the event of an emergency remain at the entry of the space and on arrival of the Emergency Response Team communicate the sequence of events, persons in the space and any other relevant information as requested. Do not enter the Confined Space.

10 WORK COMPLETED INSIDE THE CONFINED SPACE

10.1 POC PTW Utilised



The OIC is to have all members of the work party sign off the permit and ensure they remove their personal locks. The OIC then notifies the independent person to perform a joint confined space “box up”. If OIC Point of Control (POC) locks are lost or damaged they are to be managed in accordance with the PTW Manual.

10.1.1 Independent person assisting OIC with confined space box up

The independent person assisting the OIC with the box up must not be a member of the work party who has been in the confined space for that work. It is permissible for the confined space stand by person or another member of the work party who has not been in the confined space to complete this activity. A thorough check with ‘fresh eyes’ is required to complete the following.

Independent Person responsibilities include:

- Performing the final Confined Space check to ensure all personnel are clear and equipment has been removed (sign off on Entry Permit)
- Remaining at the confined space opening(s) until the OIC Point of Control (POC) Lock(s) and warning - Point of Control (POC) tag(s) are removed and the confined space opening access cover is securely closed and
 - After performing the checks, counter initialling the relevant step(s) on the isolation sheet.

10.1.2 OIC

Responsibilities include (note that some of these responsibilities will pass onto the PICW if utilised):

- Ensuring the plant is in a condition to allow the next stage to progress;
- Checking that all persons are accounted for and that nobody remains in the confined space.
- Informing the Work Party of the change.
- Instructing the Work Party to remove their purple or blue Personal Locks and sign off the Confined Space Sign On/Sign off sheet;
- If the OIC's PTW is NOT the last PTW associated with the confined space and if appropriate:
 - Remove the white locks fitted by the OIC
 - Surrender or suspend the PTW and white locks to the PTWO
- If the OIC holds the "last" PTW associated with the confined space (note that the Confined Space Coordinator may be holding a PTW):
 - Removing the OIC Point of Control (POC) lock and key from the PTW Board and releasing the OIC Point of Control (POC) Isolation lock and key;
 - Removing the OIC Point of Control (POC) Isolation lock/s and warning - tag/s;
 - Jointly with an independent person – (Refer to above)
 - Performing the final Confined Space check to ensure all personnel are clear and equipment has been removed;
 - Remaining at the confined space opening(s) until the OIC Point of Control (POC) Lock(s) and warning - Point of Control (POC) tag(s) are removed and the confined space opening access cover is securely closed; and
 - Signing the confined space box up section on the PTW sheet.
 - Returning the OIC POC lock/s and control point tag/s to the PTW office; and
 - Either surrender or suspend the PTW.

10.2 Confined Space WCD Utilised

The PTW will be surrendered as "normal".

10.2.1 OIC

Responsibilities include (note that some of these responsibilities will pass onto the PICW if utilised):

- Ensuring the plant is in a condition to allow the next stage to progress;
- Checking that all persons are accounted for and that nobody remains in the confined space.
- Informing the Work Party of the change.
- Instructing the Work Party to remove their purple or blue Personal Locks and sign off the Confined Space Sign On/Sign off sheet;
- If the only PTW issued for the Confined Space PTW:
 - Performing the final Confined Space check to ensure all personnel are clear and equipment has been removed

- Fitting the Confined space tape across any locked access points to indicate there is no longer access to the confined space. ;
- Signing the confined space box up section on the PTW sheet.
- Either surrender or suspend the PTW.

10.2.2 PICW

Responsibilities include:

- Ensuring the plant is in a condition to allow the next stage to progress;
- Checking all persons are accounted for and that nobody remains in the confined space.
- Informing the Work Party that work is completed;
- Instructing the Work Party to remove their purple or blue Personal Locks and sign off the Confined Space Sign On/Sign off sheet
- Surrender the PICW Authorisation to Work Form.

10.2.3 Work Party

Responsibilities include:

- Removing their purple or blue Personal Lock; and
- Sign off the PTW Sign On/Off Sheet and Confined Space Entry Sign On/Off sheet.

10.3 Confined Space Coordinator (when required)

If the OIC of the “last PTW” associated with the confined space:

- Perform the “last” confined space internal check and “box up” of the confined space as detailed on the Confined Space WCD Form.
 - Performing the final Confined Space check to ensure all personnel are clear and equipment has been removed
 - Fitting the Confined space tape across any locked access points to indicate there is no longer access to the confined space.
 - Return to the PTW Office with the PTW Board and surrender the PTW

11 CONTRACTOR MANAGEMENT

Where contractors that may be unfamiliar with CS Energy procedures are procured to undertake Confined Space activities on site, relevant site specific information is to be communicated during pre-contract consultation, the site induction process and pre-work Supervisor/Site Contact/OIC communication. The following is to be communicated:

- Details regarding site specific rules and access restrictions;
- Details regarding site specific hazardous areas and the need to adopt signage requirements; and
- Details about the specific working at heights to be performed and any site-specific hazards.

Prior to contractors being procured and confirmed to undertake work on site, information such as the following is to be verified as part of contractor management processes and pre-work consultation:

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Reviewed: 10/20
Amended: 10/20
Review Due: 10/22



- Work experience, training and competency evidence to verify that contractors are capable of performing the work and conversant with industry hazards;
- Work procedures or work method statements that identify key high-risk tasks, hazards, and controls to be implemented; and
- Details listing the plant and equipment to be brought onto site with respect to Australian Standard compliance, inspection and maintenance details (i.e. inspection records, logs, etc.)

12 TRAINING AND COMPETENCY

Refer to CS-PTW-SOP-02 Training and Authorisation in the PTW System for additional information

Persons who are required to undertake entry or work within a confined space shall be currently competent in the tasks that they are required to perform and in the site compliance standards and procedures relating to Confined space entry.

To be 'competent' in Confined Space Entry, a person shall have successfully completed relevant approved training in the role they shall be undertaking in confined space work. Refresher training is to be undertaken at an appropriate time, which is outlined in the matrix below.

Confined space training is competency-based training with an assessment component. Records are maintained at each site.

Training Type	Target Group	Description
Confined Space Entry Training –	Work party Basic Safety Observer	<ul style="list-style-type: none"> Enter and work in Confined Spaces to National Competency; Understand the atmospheric hazards and controls; Role of the confined space standby person; Become familiar with CS Energy's assessment protocols, documentation and the sign on/off process. Refresher interval – Three Yearly
Confined Space Management Training	OIC PTWO Confined Space Coordinator Persons who design or supervise Refer WHS Regulations 2011 Regulation 76.	<ul style="list-style-type: none"> Detailed Confined Space management training (equal to RTO/National Competency); Assess and manage Confined Space entry and work; Through use of CS Energy's Confined Space documentation, gain a thorough understanding of the risk assessment process and legislative intent. Confined Space Coordinator to be plant competent Refresher interval – Three Yearly
Confined Space Atmospheric Testing / Training	Personnel required to undertake air quality testing practices Competent Persons	<ul style="list-style-type: none"> Site specific training for Air Quality Testing and devices; Inspect, calibrate and use air quality testing devices; Document results; Determine the necessary control actions to be undertaken. Refresher interval – Three Yearly

Training Type	Target Group	Description
Rescue	Trained Rescue Personnel	<ul style="list-style-type: none"> Specialist training for rescue team. Apply emergency response procedures. Apply communication processes. Confined space entry training. Refresher interval – as per training plan
BA Training	Specific Work Party Members	<ul style="list-style-type: none"> Use of BA equipment for undertaking work. Refresher interval – as per training plan
Job Specific Emergency Response Plans	Work Party Members, stand by person and ERT	<ul style="list-style-type: none"> Instruction on what is required to be done in the event of an emergency as per the Emergency Response Plan. Plan to be trialled.
Communication requirements	Work Party Members, stand by person	<ul style="list-style-type: none"> Instruction on what is required to be done in the event of an emergency as per the Emergency Response Plan

13 DESIGN CONSIDERATIONS

Other CS Energy processes and procedures manage Confined Space design, procurement and construction requirements. As a general rule - specific Australian Standards, Advisory Standards, Codes of Practice provide the minimum requirements (refer the reference documentation).

14 CONFINED SPACE DOCUMENTATION

Documentation relating to confined space work shall be maintained, recorded and should be made available to the person and the regulatory authority inspectors on request. Records shall include:

- Training records;
- Written Authorities;
- All risk assessments and JSEA's conducted for confined space work;
- The site confined space register;
- Inspection, calibration and maintenance activities;
- Testing and monitoring activities.

15 PTW AUDITING AND REVIEW PROCESS

Compliance with the CS Energy's CS-PTW-HAZ-03 Working in Confined Spaces procedure will be reviewed in conjunction with the audit and review requirements of the PTW system as outlined in the Audit and Review Process for the PTW System procedure

16 DEFINITIONS

Term	Definition
Confined Space Opening	An opening for entry or exit from a confined space shall be of adequate size to permit rescue of all persons who may enter the confined space. The opening may have an access cover and/or confined space sign to prevent unauthorised or unintentional entry to the confined space.
Confined Space	A confined space means an enclosed or partially enclosed space that: <ul style="list-style-type: none"> • Is not designed or intended primarily to be occupied by a person; and • Is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and • Is or is likely to be a risk to health and safety from: <ul style="list-style-type: none"> ○ An atmosphere that does not have a safe oxygen level; or ○ Contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion; or ○ Harmful concentrations of any airborne contaminants, or engulfment.
Nominated Entry Point	A confined space opening nominated by the OIC as the point in which personnel will enter and exit the confined space. The entry point is nominated by erecting signage or a confined space board. The entry is to have the confined space documentation available to sign into the space and check atmospheric testing. Note: there may be more than one nominated entry point for large confined spaces (e.g. boiler furnace)
Nominated Ventilation Point	A confined space opening not used for entry and exit but open for purging or ventilation and required to stay open for the duration of the PTW.

Term	Definition
Point of Control (POC)	A nominated entry or ventilation point that is secured by an OIC applied white POC lock.
LEL	Lower Explosive Level of flammable substance as indicated on Material Safety Data Sheet

17 REFERENCES

Reference No	Reference Title	Author
AS 2865	Standard - Safe Working in a Confined Space	Standards Aust
DR 05564	Standard - Draft Australian Standard 2865:2001	Standards Aust
Web Link	Work Health and Safety Regulation 2011	WorkCover Qld
Web Link	Code of Practice for Confined Space Entry	WorkCover Qld
B/D/11/36151	Form - S1833 - Confined Space Entry - Sign On / Sign Off Sheet	CS Energy
B/D/11/36157	Form - S1891 - Confined Space - Part 1 - Risk Assessment	CS Energy
B/D/11/36154	Form - S1889 - Confined Space - Part 2 - Rescue Plan	CS Energy
B/D/11/36155	Form - S1890 - Confined Space - Part 3 - Atmospheric Testing	CS Energy

18 RECORDS MANAGEMENT

In order to maintain continual improvement, suitability, safety and effectiveness of the organisation, registered documents will be reviewed on a two-yearly basis or at intervals specified by legislative or regulatory requirements. Review of controlled documents should occur where it has been identified that there are changes in technology, legislation, standards, regulation or where experience identifies the need for alteration to the content. Registered documents should also be reviewed following an incident, change management process, modification or where directed as part of a risk assessment process. A 'review' can simply mean that it has been identified, confirmed and appropriately recorded that no changes are required and that the existing process remains the same.

Government Owned Corporations must ensure that records are retained according to accountability, legal, administrative, financial, commercial and operational requirements and expectations. In compliance with records retention and disposal, all documentation created in relation to business must be retained in line with minimum retention periods as detailed in legal retention and disposal schedules.

19 ATTACHMENTS

19.1 Attachment 1 – Extract – Work Health and Safety Regulation 2011

Schedule 19 Dictionary

Confined space means an enclosed or partially enclosed space that -

- a) is not designed or intended primarily to be occupied by a person; and
- b) is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and
- c) is or is likely to be a risk to health and safety from -
 - i. an atmosphere that does not have a safe oxygen level; or
 - ii. contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion; or
 - iii. harmful concentrations of any airborne contaminants; or
 - iv. engulfment; but does not include a mine shaft or the workings of a mine.

Extract from Chapter 3:

General risk and workplace management

Part 3.1 Managing risks to health and safety

Section 35 Management of risk

A duty holder, in managing risks to health and safety, must -

- a) eliminate risks to health and safety so far as is reasonably practicable; and
- b) if it is not reasonably practicable to eliminate risks to health and safety - minimise those risks so far as is reasonably practicable.

Section 36 Hierarchy of control measures

1. This section applies if it is not reasonably practicable for a duty holder to eliminate risks to health and safety.
2. A duty holder, in minimising risks to health and safety must implement risk control measures under this section.
3. The duty holder must minimise risks, so far as is reasonably practicable, by doing one or more of the following -
 - a) substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk;
 - b) isolating the hazard from any person exposed to it;
 - c) implementing engineering controls.
4. If a risk then remains, the duty holder must minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls.
5. If a risk then remains, the duty holder must minimise the remaining risk, so far as is reasonably practicable, by ensuring the provision and use of suitable personal protective equipment.

Note - A combination of the controls set out in this section may be used to minimise a risk, so far as is practicable, if a single control is not sufficient for the purpose.

Extract from Chapter 4:

Part 4.3 Confined spaces

Division 3 Duties of person conducting business or undertaking

Section 66 Managing risks to health and safety

- 1) A person conducting a business or undertaking must, under part 3.1, manage risks to health and safety associated with a confined space at a workplace including risks associated with entering, working in, on or in the vicinity of the confined space (including a risk of a person inadvertently entering the confined space).

Notes—

1. 1 WHS Act - section 19 (see section 9).
 2. 2 For general risk management requirements, see part 3.1.
- 2) A person conducting a business or undertaking must ensure that a risk assessment is conducted by a competent person for the purpose of subsection (1). Maximum penalty—36 penalty units.
 - 3) The person must ensure that the risk assessment conducted under subsection (2) is recorded in writing. Maximum penalty - (a) for an individual - 121/2 penalty units; or (b) for a body corporate - 60 penalty units.
Note - In relation to the separate penalty for an individual and a body corporate, see the note to section 50(2).
 - 4) For subsections (1) and (2), the person conducting a business or undertaking must have regard to all relevant matters, including -
 - a) whether the work can be carried out without the need to enter the confined space; and
 - b) the nature of the confined space; and
 - c) if the hazard is associated with the concentration of oxygen or the concentration of airborne contaminants in the confined space - any change that may occur in that concentration; and
 - d) the work required to be carried out in the confined space, the range of methods by which the work can be carried out and the proposed method of working; and
 - e) the type of emergency procedures, including rescue procedures, required.
 - 5) The person conducting a business or undertaking must ensure that a risk assessment under this section is reviewed and as necessary revised by a competent person to reflect any review and revision of control measures under part 3.1. Maximum penalty for subsection (5) - 36 penalty units.

Section 70 Specific control - connected plant and services

- 1) A person conducting a business or undertaking must, so far as is reasonably practicable, eliminate any risk associated with work in a confined space in either of the following circumstances -
 - a) the introduction of any substance or condition into the space from or by any plant or services connected to the space;
 - b) the activation or energising in any way of any plant or services connected to the space.
Maximum penalty - 36 penalty units.
- 2) If it is not reasonably practicable for the person to eliminate risk under subsection (1), the person must minimise that risk so far as is reasonably practicable. Maximum penalty - 36 penalty units.

19.2 Attachment 2 – Extract – Code of Practice for Confined Space Entry 2011

Section 1.3 - What is required in managing the risks?

Regulation 34-38: In order to manage risk under the WHS Regulation, a duty holder must:

- identify reasonably foreseeable hazards that could give rise to the risk
- eliminate the risk so far as is reasonably practicable
- if it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of control
- maintain the implemented control measure so that it remains effective
- review, and if necessary revise, risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.