

# BS 1955 Confined Space Entry Procedure

## Safety and Wellbeing

October 2022

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## 1. Purpose

The purpose of this procedure is to set out South East Water's minimum requirements for confined space entry (CSE) activities.

Confined space entry is designated as **high risk construction work** in the *OHS Regulations* and is one of South East Water's Living Safely Rules (LSR's) which target the highest risks to health and safety associated with South East Water's operations.

## 2. Scope

This procedure applies as a minimum requirement for all employees, contractors and other persons who design, manufacture, supply, maintain, open or enter South East Water assets that are classified as a confined space.

## 3. Definitions

Air-purifying respirator	A device that filters contaminants from inhaled air.
Air-supplied respiratory protective equipment (RPE)	A device that supplies air to the wearer from a source other than the ambient atmosphere.
Breathing apparatus (BA)	A type of air-supplied respiratory protective equipment (RPE).
Breathing zone	A hemisphere of 300 millimetres radius extending in front of a person's face measured from the mid-point of an imaginary straight line joining the ears.
Confined Space	<p>A space in any vat, tank, pit, pipe, duct, flue, oven, chimney, silo, reaction vessel, container, receptacle, underground sewer or well, or any shaft, trench or tunnel or other similar enclosed or partially enclosed structure, if the space -</p> <p>(a) is, or is intended to be, or is likely to be, entered by any person; and</p> <p>(b) has a limited or restricted means for entry or exit that makes it physically difficult for a person to enter or exit the space; and</p> <p>(c) is, or is intended to be, at normal atmospheric pressure while any person is in the space; and</p> <p>(d) contains, is intended to contain, or is likely to contain -</p> <p style="padding-left: 40px;">(i) an atmosphere that has a harmful level of any contaminant; or</p> <p style="padding-left: 40px;">(ii) an atmosphere that does not have a safe oxygen level; or</p> <p style="padding-left: 40px;">(iii) any stored substance, except liquids, that could cause engulfment –</p> <p>but does not include a shaft, trench or tunnel that is a mine or is part of the workings of a mine.</p> <p><b>Note:</b> Guidance on determining if a space is a confined or restricted space is provided in the appendices of this document.</p>

	Additionally, a confined space is determined by the hazards associated with a set of specific circumstances (restricted entry or exit, hazardous atmospheres or risk of engulfment) and not just because work is performed in an enclosed small space. The effect of physical or chemical agents may be exacerbated in a confined space.
Confined Space Entry (CSE)	Entry to a confined space occurs when a part of the body enters the space and there is a risk the person may be overcome or incapacitated by the conditions within the space.
Emergency work	Work that is required to be immediately undertaken to rectify an unexpected breakdown of an essential service (including gas, water, sewerage, electricity and telecommunications) to enable continuance of that service.
Hot work	Grinding, welding, thermal or oxygen cutting or heating, and other related heat-producing or spark-producing operations.
Lower explosive limit (LEL)	The concentration of a flammable gas or vapour in air below which the propagation of a flame does not occur on contact with an ignition source.
NOCC	South East Water Network Operations Control Centre.
Personal protective equipment (PPE)	Includes respiratory protective equipment (RPE) and personal protective clothing.
Respiratory protective equipment (RPE)	A range of air-supplied and air-purifying equipment.
Restricted Space	<p>A space that has limited or restricted entry or exit which could make it physically difficult to remove an injured or unconscious person.</p> <p>A restricted space may become classified as a confined space while certain work activities are being conducted that could change the atmosphere within the space, such as the introduction of contaminants.</p> <p>Refer South East Water document <i>BS 2722 Restricted Space Procedure</i>.</p>
Self-rescue breathing apparatus (SRBA)	A type of RPE that provides a limited supply of breathable air for escape purposes. Includes 'Oxyboks' and Emergency Life Saving Apparatus (ELSA) units.
Unprotected edge	The edge of a surface from which there is a horizontal gap, void or space of more than 300 millimetres and which is not provided with a barrier to prevent a fall.

## 4. Designers and manufacturers of plant

Designers and manufacturers of plant that includes, or is intended to include, a confined space are required to eliminate or reduce the need to enter the space so far as is reasonably practicable. Any risk associated with the means of entry to and exit from the space must be eliminated or reduced so far as is reasonably practicable.

A safe means of access to and within the confined space (including fixed ladders, platforms and walkways) should be incorporated. The designer or manufacturer should consider any relevant Australian Standards (for example, *AS 1657 Fixed platforms, walkways, stairways and ladders – Design, construction and installation*).

## 5. Roles and responsibilities

Where there is **one person in** the confined space there shall be no less than **two persons who are part of the work party, outside** the space and who are appropriately trained as defined in this procedure and capable of initiating the emergency procedures (rescue plan) if required.

Where there is **more than one person in** the confined space, the specific **emergency procedures (rescue plan)<sup>A</sup> shall determine the number of persons** required outside the space.

### 5.1. All persons involved in Confined Space Entry

Need to attend required training and ensure their training competency is current. Evidence of training should be readily available if required.

Shall use the required safety equipment and PPE for the task being performed. All persons entering the space shall have suitable RPE worn or readily available to be worn by them at all times, as set out in the emergency procedures (rescue plan). SRBA shall not be relied upon to enter a space by a rescue person.

Shall report any defective equipment or unsafe conditions to the supervisor of the works

### 5.2. Fitness for work

Working in a confined space may impose additional physiological and psychological demands over and above those encountered in a normal working environment. Consideration should be given to an employee's:

- physical ability
- ability to work in a restrictive space (for example, claustrophobia)
- ability to wear the personal protective equipment required to do the work (for example, respirators).

### 5.3. Standby Person (SP)

Must ensure that when a person is working in a confined space:

- a) there is continuous communication from outside the confined space with the person in the confined space; and
- b) the emergency procedures can be initiated from outside the confined space.

A standby person has the authority to order persons to exit the space should any hazardous situation be identified.

**A standby person shall not enter the space under any circumstances.**

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<sup>A</sup> Refer emergency procedures (rescue plan) section of this document.

#### 5.4. Safety Observer (SO)

Must ensure that when a person is working in a confined space:

- a) they are positioned in a suitable location to observe the work being performed and initiate emergency response if required; and
- b) maintain effective communication with the work team at all times.

A safety observer has the authority to order persons to exit the space should any hazardous situation be identified.

A safety observer can become a Rescue Person (RP) if they are suitably trained and equipped (such as with appropriate BA) and this is documented in the emergency procedures (rescue plan). Refer 'Rescue Person (RP)' section of this document.

#### 5.5. Rescue Person (RP)

Must ensure that when a person is working in a confined space:

- a) they are positioned in a suitable location to effectively implement emergency, rescue and first aid procedures, and
- b) the rescue equipment is fit for purpose and located so that it is able to be used immediately.

Rescuers need to be properly trained, sufficiently fit to carry out their task and capable of using any equipment provided for rescue (e.g. breathing apparatus, lifelines and fire-fighting equipment). Rescuers also need to be protected against the cause of the emergency.

### 6. Isolation of plant and services

Isolation of plant and services must be conducted to, so far as is reasonably practicable, eliminate or reduce any risk associated with work in a confined space in relation to:

- a) the introduction of any substance or condition 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.

Isolation measures such as physically locking, tagging, closing and blanking need to be verified at each isolation point. Isolation measures need to be supported by systems of work to ensure they are not removed until all work is completed and all employees have exited the confined space.

Refer South East Water document *BS 1882 Equipment Isolation Procedure – Lock Out Tag Out*.

### 7. Prevention of falls

Where possible, openings more than 300 mm should be avoided to prevent persons being in close proximity to an *unprotected edge* or to a hole, trench, shaft or pit that is of sufficient dimensions to allow a person to fall into the hole, trench, shaft or pit.

Where it is not possible to comply with this, controls in line with the hierarchy for prevention of falls shall be implemented so far as is reasonably practicable.

For example, signs, barricades and the application of a suitably rated temporary platform over the opening may be appropriate.

## 8. Atmosphere

### 8.1. Atmosphere - general

A safe atmosphere must be ensured, so far as is reasonably practicable, before entering and during work in a confined space. A safe atmosphere in a confined space is one that:

- has a safe oxygen level
- is free of atmospheric contaminants or contains atmospheric contaminants below their exposure standard (if any)
- has a concentration of any flammable gas or vapour below 5% of its LEL.

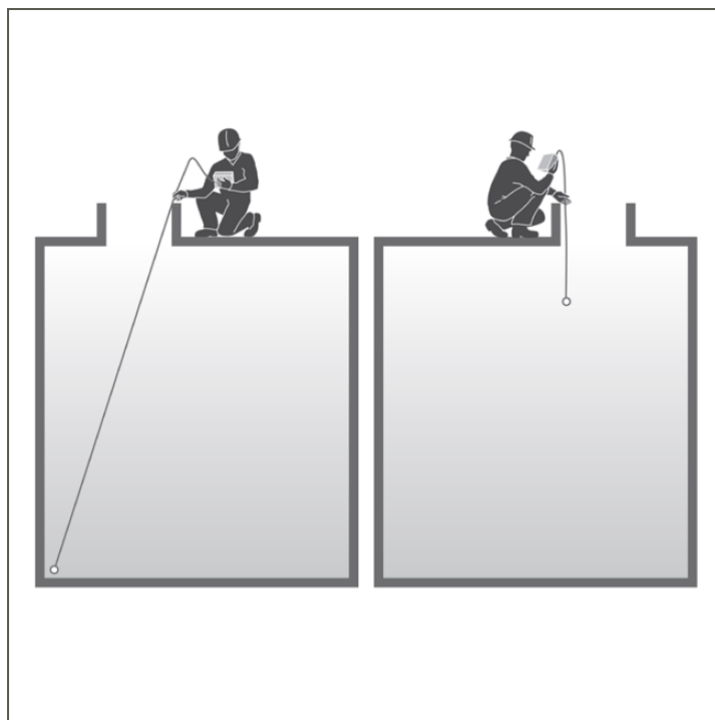
Activities that involve Confined Space Entry require full CSE training and continuous atmospheric monitoring with an appropriate and correctly calibrated gas detector.

Persons should be positioned upwind of an open maintenance structure if there is an opportunity to do so.

### 8.2. Atmospheric testing and monitoring

Prior to any persons entering a confined space, atmospheric testing needs to be carried out by a suitably qualified or competent person, using an appropriate and correctly calibrated gas detector.

Some gases (for example, hydrogen sulphide) are heavier than air and in unventilated areas typically settle to the bottom of the space, while other gases (for example, methane) are lighter than air and typically collect at the top of the space. Tests need to be made at a sufficient number of points to accurately reflect areas of the space that are likely to be accessed.



*Figure 1: Atmospheric testing of remote regions and different levels within a confined space*

Gas detector 'peak' readings need to be used to indicate the highest levels measured in the space.

The atmospheric levels must comply with the following, based on the type of gas detector in use:

Substance being detected	Acceptable (safe) levels
Oxygen (O <sub>2</sub> )	An oxygen content in air under normal atmospheric pressure that: (a) is <b>equal to or greater than 19.5%</b> by volume, but (b) is <b>equal to or less than 23.5%</b> by volume
Carbon Monoxide (CO)	Less than <b>30 ppm (TWA)</b>
Hydrogen sulphide (H <sub>2</sub> S)	Less than <b>10 ppm (TWA)</b>
Flammable gases or vapours (LEL) <sup>B</sup>	Less than <b>5% of its LEL</b> (Lower Explosive Limit) – pre-entry Less than <b>10% of its LEL</b> (Lower Explosive Limit) – while persons are in the space
Volatile organic compounds (VOC's) <sup>C</sup>	Less than <b>15 ppm (TWA)</b>
Ammonia (NH <sub>3</sub> )	Less than <b>25 ppm (TWA)</b>

Table 1: Safe atmospheric levels

If the atmosphere does not meet the above criteria, the work needs to be suspended until the atmosphere in the space is made safe and the NOCC must be notified.

If the works are *emergency work* and safe atmospheric levels cannot be maintained, entry can only be conducted in accordance with following:

Atmospheric condition	Required controls
Oxygen (O <sub>2</sub> ) <b>less than 19.5%</b> by volume	Air-supplied respiratory protective equipment (RPE)
Oxygen (O <sub>2</sub> ) <b>greater than 23.5%</b> by volume	Entry <b>not permitted</b> under any circumstances
Carbon Monoxide (CO) <b>greater than 30 ppm (TWA)</b>	Air-supplied respiratory protective equipment (RPE)
Hydrogen sulphide (H <sub>2</sub> S) <b>greater than 10 ppm (TWA)</b>	Air-supplied respiratory protective equipment (RPE)
Flammable gases or vapours (LEL) <b>greater than 10% of its LEL</b>	Entry <b>not permitted</b> under any circumstances
Volatile organic compounds (VOC's) <b>greater than 15 ppm (TWA)</b>	Air-supplied respiratory protective equipment (RPE)

<sup>B</sup> Refer 'flammable gases or vapours' section of this document for South East Water specific requirements

<sup>C</sup> For works in a confined space where pipe joining glues/ solvents are used, refer Note 1 below.



Ammonia (NH <sub>3</sub> ) <b>greater than 25 ppm (TWA)</b>	Air-supplied respiratory protective equipment (RPE)
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Table 2: Controls for atmospheric conditions

For any works where pipe joining glues/ solvents are used in a confined space and the VOC levels are between 15 – 1,000 ppm (TWA), air-purifying respirators fitted with ABEK<sup>D</sup> gas and vapour cartridge filters shall be used as a minimum. However, air-supplied respiratory protective equipment (RPE) is mandatory for levels greater than 1,000 ppm (TWA).

Note 1: Use of pipe joining glues/ solvents in a confined space

All atmospheric testing results shall be recorded on a confined space entry permit prior to issuing the permit.

Continuous atmospheric monitoring shall be conducted at suitable locations with an appropriate and correctly calibrated gas detector while any person is in the confined space. The gas detector should be positioned within or as close to the person's *breathing zone* as possible.

### 8.3. Flammable gases or vapours

If there is a likelihood of fire or explosion in a confined space, it must be ensured that no source of ignition is introduced to the space, whether introduced from within or outside the space. Ignition sources include those generated from *hot work*. Ignition sources shall be kept a minimum of **3 metres** from the entrance to a confined space.

If the concentration of a flammable gas or vapour is equal to or greater than 5% of its LEL after **15 minutes** venting, all access chamber covers shall be replaced, the job cancelled and the location reported to South East Water.

Entry to a confined space shall only be permitted if the concentration of a flammable gas or vapour is below **5% of its LEL**.<sup>E</sup>

If persons are already in the space and the concentration of a flammable gas or vapour becomes equal to or greater than 5% but less than 10% of its LEL, all persons shall be removed immediately from the space unless a suitably-calibrated, continuous-monitoring, flammable gas detector is used in the space while any person is in the space.

If the concentration of any flammable gas or vapour in the atmosphere of the space is equal to or greater than 10% of its LEL, all persons shall be removed immediately from the space.

### 8.4. Cleaning and ventilation

A safe atmosphere can be achieved within a confined space by using methods such as cleaning, purging and ventilation.

**Cleaning** is an effective means of bringing down contaminant levels in a confined space, for example by lowering the levels of hydrogen sulphide in a sewer wet well.

**Ventilation** of a confined space with fresh air, by natural or forced (mechanical) means, may be necessary to establish and maintain a safe atmosphere.

<sup>D</sup> Multi-Gas: Organic vapour (A) + inorganic vapour (B) + acid gas (E) + ammonia (K) = ABEK

<sup>E</sup> Regulation 60 (1) of the OHS Regulations 2017 (Victoria) and Paragraph 136 of the WorkSafe Victoria Compliance Code Confined Spaces permit entry up to 10% of LEL if a suitably-calibrated, continuous-monitoring, flammable gas detector is used in the space while the employee is in the space. However, South East Water have deemed this limit to be 5% of LEL.

Ventilation needs to be continued for as long as anyone is in the confined space.

When using natural ventilation, access covers are to be removed at least **15 minutes** prior to entry. When using mechanical ventilation, this shall be running for at least **15 minutes** prior to entry.

Pure oxygen or gas mixtures with oxygen in a concentration greater than 21% by volume shall not be used for purging or ventilation of any contaminant in the atmosphere of the space.

### 8.5. Gas detectors

**Four Gas** detectors shall be used in all confined space entries as a minimum. These gas detectors shall be fitted with sensors for flammable gas (LEL), oxygen, hydrogen sulphide and carbon monoxide.

**Six Gas** detectors shall be used for works on Melbourne Water sewer assets and may be used on South East Water assets, particularly live sewer works and trade waste. These gas detectors shall be fitted with the same sensors as four gas detectors, with the addition of volatile organic compound (VOC) and ammonia sensors.

Gas detectors shall be selected, installed, used and maintained in accordance with AS/ NZS 60079.29.2.

The accuracy of the gas detection unit shall be verified on a regular basis by performing a functionality (bump) test on a monthly basis, as a minimum. If the instrument fails the test, it must be calibrated before use.

Gas detectors shall be **calibrated at minimum 6 monthly intervals**, as a minimum.

## 9. Administrative controls

### 9.1. Signs and barricades

Once a space has been classified as a confined space, signage must be installed where practicable.

Where fixed signs are not in place a temporary sign must be placed at the entry point of the confined space.

Confined space signs shall comply with the requirements of OHS Regulations and all signs shall comply with AS 1319.



Figure 2: Sample Confined Space sign

Signage must be clear and prominently positioned next to each entry point to the confined space.

It must be in place while work is performed in the confined space, or work is being performed in preparation for, or in completion of, work in the confined space.

All reasonable steps need to be taken to prevent unauthorised entry to a confined space by, for example, using fixed barriers, locks or other suitable security devices.

Signposting alone should not be relied on to prevent unauthorised entry into a confined space.

Fixed confined space signage shall be constructed preferably from aluminium.

### 9.2. Confined space entry permit

A documented Confined Space Entry Permit must be developed and reviewed by the work party prior to any person entering the space.

Any changes to the working conditions or roles of persons in the work party must be updated on the permit and communicated to the work party.

The permit must indicate when persons have entered and exited the confined space.

The permit shall be retained for a minimum of 30 days after the work is completed<sup>F</sup>, or for a minimum of two years from the date of completion if a notifiable incident occurs.

Refer South East Water document *BS 2537 Confined Space Entry Permit and Rescue Plan* for a confined space entry permit template and emergency procedure (rescue plan) examples.

### 9.3. Safe Work Method Statement (SWMS)

A compliant Safe Work Method Statement (SWMS) must be developed for any confined space work and reviewed, agreed and understood by the work party prior to any person entering the space.

### 9.4. Emergency procedures (rescue plan)

Documented emergency procedures shall be prepared in consultation with the work party prior to any person entering the space.

Examples of emergency procedures (rescue plans) are contained in the South East Water document *BS 2537 Confined Space Entry Permit and Rescue Plan*.

The emergency procedures shall be rehearsed by the relevant employees.

When a total fire ban day has been declared, consideration should be given to postponing confined space works. Under these conditions it is possible that emergency services may not have the available resources to assist with a confined space rescue in a timely manner.

### 9.5. Asset entry and exit

Entry to South East Water assets shall only be conducted by authorised employees and contractors who are recorded in the Asset Entry system, as set out in the South East Water document *AM 2426 Asset Entry Procedure*.

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<sup>F</sup> Regulation 64 of the OHS Regulations 2017 (Victoria) and Paragraph 144 of the WorkSafe Victoria Compliance Code Confined Spaces require a permit to be kept until the work to which it relates is completed. However, South East Water have deemed this to be 30 days as per the (previous) OHS Regulations 2007.

South East Water treatment plants are exempt from the asset entry process, however local permit to work systems are used. Where activities are undertaken on Melbourne Water assets, refer to MW access requirements.

## 10. Equipment

### 10.1. Respiratory Protective Equipment

RPE shall be compliant with AS/ NZS 1716 and selected, used and maintained in accordance with AS/ NZS 1715.

Pre use inspections and fit checking of RPE shall be conducted before use.

Where air-supplied RPE is identified as a risk control measure for works involving CSE, a fit check is to be conducted, witnessed and documented (such as on the Confined Space Entry Permit) prior to those works commencing for that day/ shift.

The maximum use time for gas and vapour cartridge filters used with air-purifying respirators is **6 months**. Once the sealed packet containing the cartridge filter is opened, (even if not used) the carbon in the filter will absorb contaminants from the general environment.

### 10.2. Safety harnesses and lifelines

Any person working in a confined space shall wear a safety harness at all times, with a safety lifeline attached where practicable. If a safety lifeline needs to be disconnected, the lifeline must be positioned within easy reach and reconnected before egress from the confined space.

All safety harnesses and associated personal equipment shall be compliant with the AS/ NZS 1891 Series of standards as applicable and selected, used and maintained in accordance with AS NZS 1891.4.

## 11. Training and competency

### 11.1. Confined Space Entry

South East Water employees and contractors who enter a confined space, form part of a CSE work party, or carry out space classification assessments are required to complete the four competency units listed below, followed by **two-yearly refresher** training:

- **Enter and Work in Confined Spaces**
- **Work in accordance with an issued permit**
- **Operate breathing apparatus**
- **Undertake confined space rescue.**

In addition, the following competency unit is required to be completed, followed by **annual refresher** training:

- **Provide cardiopulmonary resuscitation**

Records of training must be current, with evidence of completion provided to the relevant South East Water contract manager who shall then forward them on to the NOCC.

A register of South East Water employees who are authorised to enter a confined space shall be maintained. The above training units are a pre-requisite to be considered for inclusion on the register, although this in itself does not guarantee that all employees will be included on the register for CSE works.

## 11.2. Confined space awareness

South East Water employees or contractors who need to have an understanding of the risks associated with confined spaces, although do not need to enter a confined space, are required to complete a confined space awareness training course, as a minimum, followed by **annual refresher** training.

This training also covers the selection and use of gas detectors and is the minimum level of training required to undertake gas detection.

For example, a designer or surveyor who has completed a confined space awareness training course may lift a structure cover on a live sewer to inspect or measure levels from outside of the confined space.

## 12. References

### 12.1. Legislation

- Occupational Health and Safety Act 2004 (Victoria)
- Occupational Health and Safety Regulations 2017 (Victoria)
- WorkSafe Victoria Compliance Code - Confined Spaces – Edition 2, December 2019

### 12.2. Standards

- AS 1319 - 1994 (R2018) Safety signs for the occupational environment
- AS 1657 - 2018 Fixed platforms, walkways, stairways and ladders - Design, construction and installation
- AS 1674.1 - 1997 (R2016) Safety in welding and allied processes - Fire precautions
- AS/ NZS 1715 - 2009 Selection, use and maintenance of respiratory protective equipment
- AS/ NZS 1716 - 2012 Respiratory protective devices
- AS/ NZS 1891.1 - 2020 Personal equipment for work at height - Manufacturing requirements for full body combination and lower body harnesses
- AS/ NZS 1891.2 - 2001 Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems
- AS/ NZS 1891.2 Supp 1 - 2001 Industrial fall-arrest systems and devices - Horizontal lifeline and rail systems - Prescribed configurations for horizontal lifelines (Supplement to AS/ NZS 1891.2 - 2001)
- AS/ NZS 1891.3 - 2020 Personal equipment for work at height - Manufacturing requirements for fall-arrest devices
- AS/ NZS 1891.4 - 2009 Industrial fall-arrest systems and devices - Selection, use and maintenance
- AS 1891.5 - 2020 Personal equipment for work at height - Manufacturing requirements for lanyard assemblies and pole straps
- AS/ NZS 60079.29.2 – 2016 Explosive atmospheres - Gas detectors - Selection, installation, use and maintenance of detectors for flammable gases and oxygen

### 12.3. South East Water documentation

- AM 2035 Accessing Sewer Infrastructure Procedure
- AM 2426 Asset Entry Procedure
- BS 1882 Equipment Isolation Procedure – Lock Out Tag Out
- BS 2537 Confined Space Entry Permit and Rescue Plan
- BS 2722 Restricted Space Procedure
- BS 2723 Confined or Restricted Space Classification Assessment Form

## 13. Revision status

### 13.1. Revision table

Date	Description	By	Approval by
12/12/2010	Change to responsibility	SB	CL
21/08/2013	Added reference to SCADA notification and related documents	JW	CB
18/07/2014	Revision changes	CB	SA
11/09/2014	Revision updates	JW	CB
13/10/2014	Revision to reflect six gas detector introduction	JW	CB
27/10/2014	Revision on the asset entry and 6 gas detector	CB	SA
17/12/2017	Major rewrite to align with Victorian OH&S legislation and current South East Water practices	D Sweeney	J Quilligan
14/08/2018	Minor revisions following release of revised Confined Spaces Compliance Code, stakeholder feedback and standardisation with the Victorian Urban Water Authorities (UWA)	D Sweeney	T Schubach
10/06/2020	Revisions following feedback and planned internal review	D Sweeney	P Grimson
23/11/2021	Increased/ provided greater detail on controls for atmosphere and height safety	D Sweeney	P Grimson
07/10/2022	Increased training refresher intervals and document review period.	D Sweeney	D Anderson

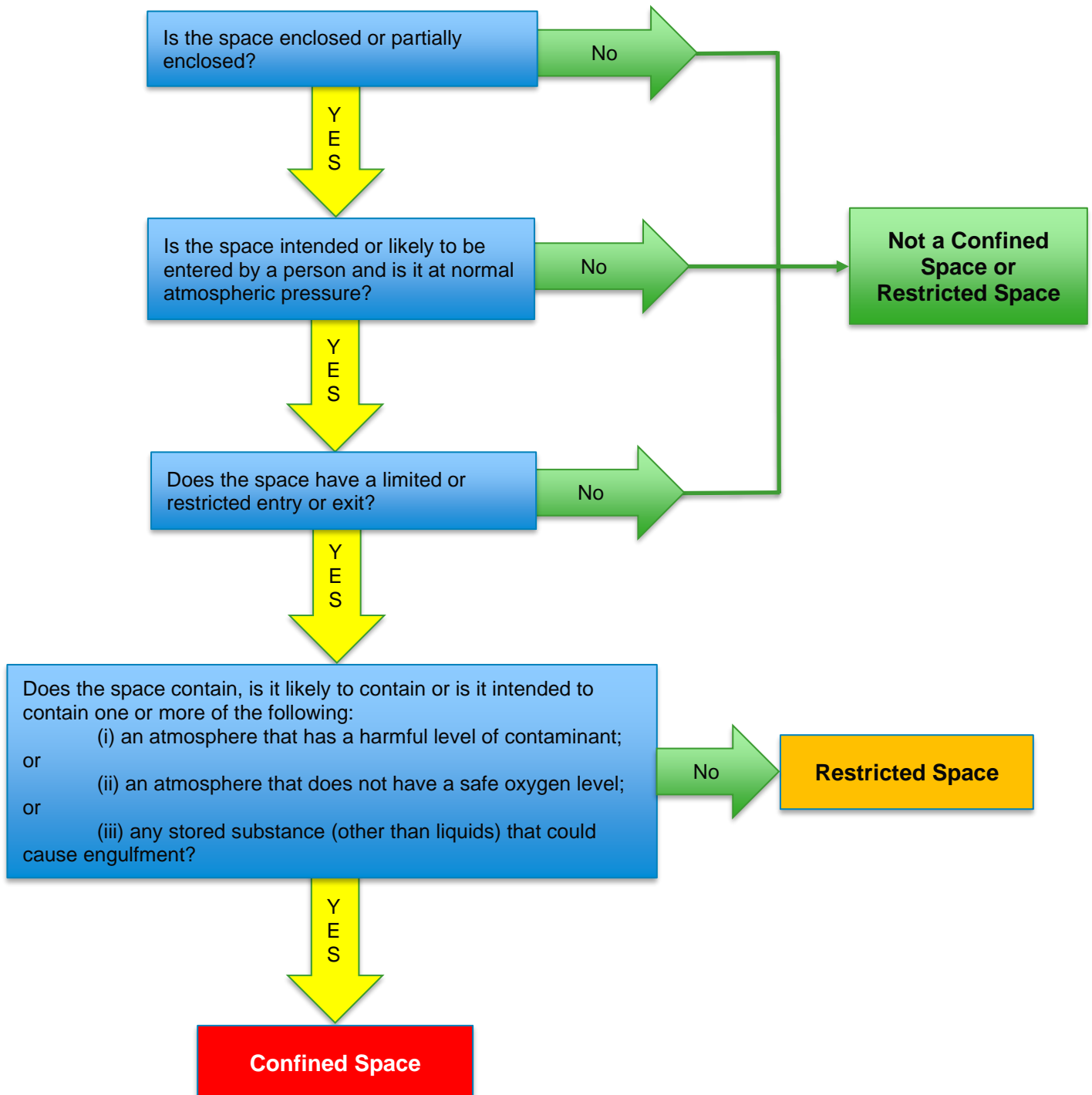
### 13.2. Review intervals

This document shall be reviewed and revised as necessary at no greater than five yearly intervals.

## 14. Appendices

### 14.1. Determining if a space is a confined or restricted space

#### 14.1.1. Flowchart





### 14.1.2. Considerations

#### a) Is the space enclosed or partially enclosed?

The size of the space is not a factor when classifying a confined space.

#### b) Is the space intended or likely to be entered by a person and is it at normal atmospheric pressure?

Entry to a confined space occurs when a part of the body enters the space and there is a risk the person may be overcome or incapacitated by the conditions within the space.

#### c) Does the space have a limited or restricted entry or exit?

The entry or exit to the space may be restricted by the size of the opening or its location. Consideration needs to be given to whether the space is physically difficult to get in or out of and whether it would be difficult to remove an injured or unconscious person from the space.

#### d) Does the space contain, is it likely to contain or is it intended to contain one or more of the following:

- an atmosphere that has a harmful level of contaminant (e.g. a level in excess of the relevant exposure standard or, if the contaminant does not have an exposure standard, the level where the contaminant is likely to have an adverse health effect)
- an atmosphere that does not have a safe oxygen level (a safe oxygen level is defined in regulation 5 of the OHS Regulations as an oxygen content in air of between 19.5% and 23.5% under normal atmospheric pressure)
- any stored substances (other than liquids) that could cause engulfment (e.g. solids, such as fly ash, grain, animal feed, sawdust and sand, that can flow and can form a temporary cavity or bridge, which may collapse and surround a person, cutting off their air supply)?

If the answer to **all four** questions above (a, b, c and at least one part of d) is **yes**, then the space is a **confined space**.<sup>6</sup>

Space classification assessments can only be conducted by suitably trained South East Water employees.

A copy of the classification assessment for the space should be stored at or near the entrance to the space where practical, and the assessment details entered into the South East Water 'Watershed' database.

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<sup>6</sup> The flow chart and text above have been extracted from flow chart 1 and table 1 of the WorkSafe Victoria Compliance Code Confined Spaces.