CRITICAL HAZARD & ASSOCIATED RISK MANAGEMENT STANDARD FOR

CONFINED SPACES

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Spark Confined Spaces Risk Management Standard

This standard outlines the methods by which Spark will manage the risk associated with confined spaces on the Spark network. This document applies to all Spark worksites (including offices) and covers Spark workers, clients, visitors, suppliers and third-party contractors.

Contents

1. Overview

1.1. Confined Space Standard

Working in Confined Spaces (CS) can be extremely hazardous, and in certain situations can lead to multiple fatalities, through inadequate risk assessment and emergency planning not being considered and applied. Spark recognises this can happen in a wide range of industries and is relevant to certain critical work activities carried out across the Spark network by our suppliers and third-party contractors.

This type of work includes ongoing maintenance and essential works within CS such as hatched cable wells and external personnel access points. Spark also recognises that it is not possible to provide a comprehensive list of Spark's CS, as some places may become CS when work is being carried out during their maintenance, construction, fabrication, or subsequent modification by our suppliers, contractors or others.

1.2. Purpose

The purpose of this standard is to ensure that so far as is reasonably practicable, actions will be taken to eliminate or minimise those associated risks when a person is working in a confined space at a Spark worksite, or when working at another PCBUs (Person Conducting a Business or Undertaking) worksite, where Spark has been granted access to carry out work. These steps will include pre- planning, safe systems of work, risk management (assessment), worker consultation, monitoring and emergency planning. To ensure continual improvement, this document will be reviewed on a regular and annual basis.

1.3. Legal Outline

This Critical Hazard and Associated Risk Standard has been specifically developed to give the reader a comprehensive overview of how CS risks are managed at Spark and aligned with their obligations under current H&S legislation.

CS shall be, so far as is reasonably practicable managed within Spark in accordance with legislation and the documents listed below in section 1.4

1.4. Related Legislation, Best Practice & Industry Standards

Health and Safety at Work Act 2015
Health and Safety at Work (General Risk and Workplace Management) Regulations 2016
Health and Safety in Employment Regulations 1995
WorkSafe fact sheet: planning entry and working safely in a confined space https://worksafe.govt.nz/topic-and-industry/planning-entry-and-working-safely-in-a-confined-space/
AS2865-2009 Australian Standard 2865 – 2009 Confined Spaces
Spark H&S Supplier Policy 2017 http://www.sparknz.co.nz/about/suppliers/

1.5. Scope

This document outlines the standard and framework that Spark will put in place to identify and manage any risks associated with CS on Spark worksites, and that of its subsidiaries. It applies to all Spark worksites (including offices) and covers Spark people leaders and employees, suppliers, service providers, internal/ external project managers (PMs), delivery integrators, external consultants, designers, external visitors, clients, contractors and third-party contractors.

Please note that any information considered to critical, has been written in red text through the remainder of this document.

1.6. Definitions of Terms Used

Please see section 7

2. Document Details

2.1. Document Ownership

Prepared by Paul Uttley Date: March 2018

Sponsor Rob Berrill Date: July 2018

Approved by Mark Beder Date: July 2018

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2.2. Document Version History

VERSION	DATE	PAGES	DESCRIPTION	AUTHORISED
1	March 2018	New Confined Space document written	Written by Group H&S Manager	Paul Uttley
1	May 2018	All	For review with HS team	Paul Uttley
1	June 2018	All	For review with Connect SLT & key personnel	Paul Uttley

2.3. Roles and Responsibilities

Refer to the table below for roles and responsibilities:

When more than one PCBU have the same health and safety duties in a CS matter (e.g. overlapping duties) Spark will make sure so far as is reasonably practicable, that they consult, co-operate and co-ordinate with one another over the same matter. This will help avoid unnecessary duplication of effort and help prevent gaps in managing CS related risks. In most instances, Spark will be a leader in promoting and encouraging good H&S practices at shared worksites. Although, the nature of this leadership will reflect how much influence and control Spark have on CS risks at the shared workplace and what is reasonably practicable in the circumstances.

Role	Responsibility
Spark N.B Spark means all entities and people who also have responsibilities involved in managing CS activities	Spark will make sure, so far as is reasonably practicable that: • the H&S of Spark workers and others is not put at risk by any CS activities being undertaken across their worksites. • It works closely with their suppliers and engaged contractors for managing and controlling CS hazards and associated risks through a suitable PBCU and workers consultative and participation process. • both Spark and supplier workers are provided clear guidance on how to effectively manage CS critical hazards and associated risks through the content of this standard. • Spark suppliers in consultation with Spark Management develop, deploy and monitor suitable CS safe systems of work when carrying out confined spaces activities across Spark worksites.
Spark Health and Safety Team	• make sure, the H&S requirements of this standard are applied and monitored through participation and consultation with Spark Management and suppliers • assist Spark Management in the review of safe systems of work for suppliers and contractors (including CS risk control plan) for best managing and controlling CS hazards and associated risks.
Spark Procurement Team	• make sure, a suitably competent and reputable contractor and sub-contractor is selected and engaged through a sound pre-qualification process for any type of critical risk works. • upon request, liaise with the relevant Spark teams, respective Project Manager (PM) and H&S Advisor for the selection of any contractor undertaking critical work activities.
Manager, managing CS work on a Spark site (including: Spark Property Asset Manager, Facilities Manager, Internal PMs, Delivery Integrators, External PMs engaged by property and service companies)	• make sure, critical risk CS activities are managed and controlled using direction and guidance from this Risk Management Standard for CS. • review and audit the performance of suppliers critical CS activities in consultation with the supplier and Spark H&S representative. • work closely with any supplier or Contractor or third-party contractor who may be carrying out critical CS activities at a Spark worksite or office. Assist the H&S team to review CS documentation for safe systems of work for suppliers and contractors (including CS risk control plan) for best managing and controlling CS hazards and associated risks.
Contractor and third-party contractor	• critical risk CS activities are identified managed and controlled using guidance from Sparks Risk Management Standard for CS. • It develops and supplies adequate risk assessments and Safe Work Method Statements (SWMS) for critical CS activities when requested from Spark management or a Spark representative. • workers or self-employed workers have the necessary knowledge, experience and qualifications to carry out activities safely and are supervised by competent personnel. • they audit the performance of their CS activities, self-employed and workers and ensure they comply with the requirements of legislation and best practice. • all workers are consulted with and provided the content of Sparks Risk Management Standard for CS. • supply correct, suitable and safe CS related plant and equipment including PPE (personal protective equipment) always.

3. Confined Spaces – Standard Guidance

Spark have introduced this Standard to provide practical guidance for Spark, supplier and contractor workers, when planning to control critical risks relating to CS activities across all our worksites where practicable. It is important to note that although this Standard covers our most focused critical risks that workers may be exposed to daily, it may not address all risks encountered with CS when working or carrying out works across the Spark network and therefore, CS planning and risk assessment is essential before starting the work.

3.1.1. Worker Consultation

To further improve the H&S risk management process Spark will always consult with their available resources and expertise within the business (i.e. managers employees, designers, H&S team and suppliers), mainly at the planning and design stage of any Spark H&S risk management process. This consultative process enables Spark to define the context and basic parameters within which critical hazards and associated risks will be managed.
This Standard was developed in consultation with Sparks H&S team, Spark managers, workers and suppliers, who both manage and carry out CS works for Spark on regular basis. This consultation occurred between 26 March - 6 April 2018 via worker feedback, where a Spark request was made for suitable worker representation made up of the above persons, who were then requested to complete and return feedback in the table below.

Confined Spaces (CS) - Worker Feedback		
CS activities: examples • making connections, inspections or adjustments • performing maintenance on underground and buried telecoms utilities. • performing maintenance on underground or buried public utility and other services.	• How are these activities and associated H&S risks currently controlled?	• What could be done to improve and make these CS activities safer

All worker feedback was then collated into a register and reviewed to help determine what is occurring for CS activities at Spark worksites, and how risks are being currently managed and controlled by Spark and their suppliers. All recommendations were considered, then suitable improvements were applied to the development of this Risk Management Standard for CS. Recommendations included:

- *A better definition into 'confined' or 'restricted' is required with sensible controls applied.*
- *The current permit and process needs an overhaul, once the standard is complete.*
- *Currently the rescue plan presented is a separate document, the new CS standard should point out suggested controls that are needed.*
- *A list of critical work activities should be added to the current NOC permit request form, which then generates a high-risk permit for CS access.*
- *Currently we receive permit requests with little detail and must chase contractors for documents such as SWMS, certification of workers and then we review it with no real knowledge and training for CS management.*
- *We require clear process with specific site requirements, would recommend individual safe system of work per site so the contractor is specified a Spark method of entry.*
- *We need a formalised Spark CS procedure to assist employees and workers to work safely in CS, as currently only guidelines exist.*
- *We need to improve the management / engagement of external client contractors e.g. Chorus, so they understand the requirements for entering CS.*
- *We require a clearly defined permit to work system, roles and responsibilities and defined CS areas as per standard AS/NZ 2865.*
- *Provide education and training for Spark people authorising confined CS work enabling them to review any related documents submitted by the contractor.*
- *Re assess current confined and restricted spaces, as some we have labelled as CS are not.*
- *Set up generic rescue plans for CS with a box for any additional risks.*
- *Remove current restricted space labels / signs, as I believe there is not any additional risks in these spaces – maybe label as cable tunnel and ensure they are locked down with Cardex.*

3.2. Spark CS Risk Profile

This CS Standard will take a risk-based approach and therefore, only focus on the confined spaces activities that occur at Spark on a regular basis, with the most amount of critical risks, and where negative outcomes could lead to a person or persons being killed or their future permanently altered.

3.2.1. What is a confined space

As defined by Worksafe NZ, in New Zealand a confined space is best described as an enclosed or partially enclosed space that is not intended or designed primarily for human occupancy, within which there is a risk of one or more of the following items:

- lack of oxygen
- poisonous gases, fumes, or vapours
- liquids and solids (which can suddenly fill in the space)
- fire and explosion
- dust present in high concentration
- hot conditions within the space
- certain types of plant and equipment being used within the space.
- restricted and limited access in the space

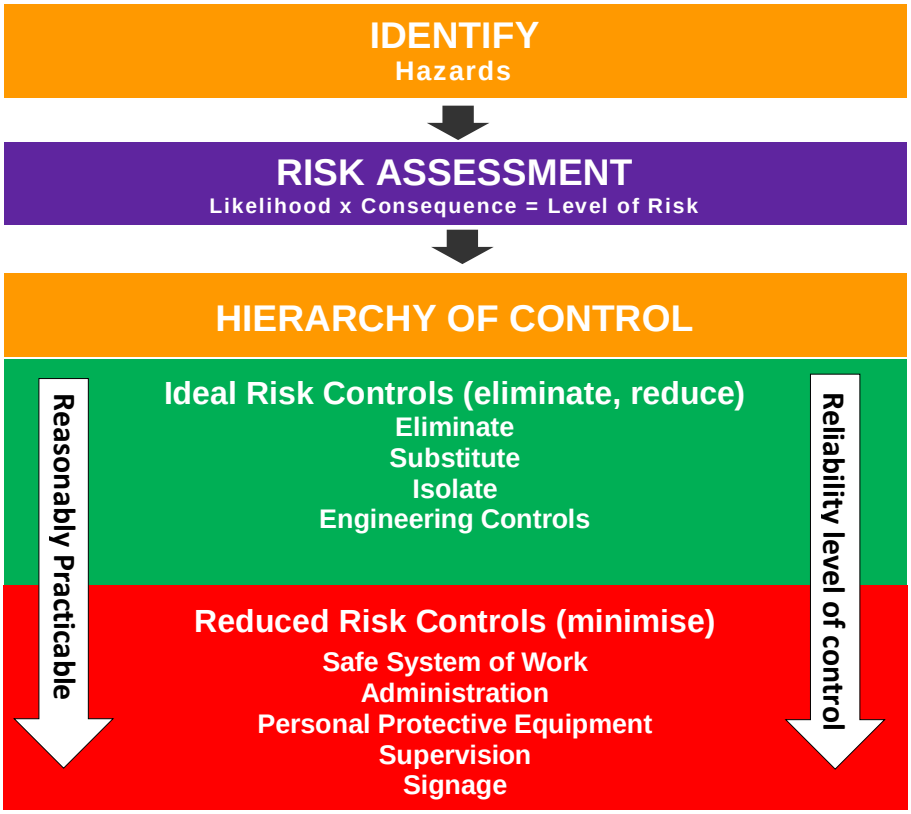
The following CS activities and situations were identified and assessed as potentially critical within the Spark CS risk profile, several of these will be discussed in detail for the remainder of this document:

Where a person/s works within; or introduces a specific piece of plant, equipment or substance into an area potentially turning it into a confined space within the following spaces:

- **Hatch Accessed Cable Well**
- **Walk-in Cable Well**
- **External Personnel Access Point**
- **Contractors engaged by Spark to carry out CS works without first having the following essentials in place:**
  i. required worker competency and supervision
  ii. a suitable pre-planning and risk assessment process,
  iii. a suitable emergency recovery and rescue plan in place for the nature of the confined space, and any risks identified that may arise from the work being carried out within the space.

The current criteria used for a ‘restricted space’ within Spark will not be used any further in this standard, as in most cases it is not applicable to CS. In all circumstances, a confined space will be defined by using the flow chart in section 5.4.4 - correctly identifying CS at a Spark Worksite. Whereas a ‘restricted space’ is area restricted from others due to the critical hazards and associated risk identified within e.g. high voltage equipment rooms, radio frequency antennae, areas with fire suppression gas flood systems, it does not apply to the nature of the space i.e. ‘where the size and/or location of the space makes it physically difficult to get in and out of, or problematic to remove an injured or unconscious person from the space in time of emergency’

Spark Risk Assessment Model



4. CS Risk Management

4.1. Overview: Plan Do Check Act (PDCA)

The following PDCA system is a basic yet effective risk management system used for continual improvement for managing CS, it will be adopted by Spark to provide an easy to follow sequence and overview of their current list of Critical Hazard and Associated Risk Management Standards. The sequence and flow chart illustrated within section 4.2 will be used for its application at the following two levels:

1. The planning and risk assessment of identified CS critical hazards and associated risk that applies at a Spark worksite or office **(Plan)**
2. The application, monitoring and review of confined space controls at a Spark worksite or office **(Do, Check, Act)**

Planning
The purpose of planning using the PDCA system, is to establish a risk profile of existing and potential CS hazards and risks, across Spark's worksites, and what types of remedial works are to be applied and then agree on the appropriate CS risk controls. This will require a risk assessment which is the Spark CS risk management process (refer to sec 5.1) to identify the nature and extent of the risks, and the possible options for control measure.

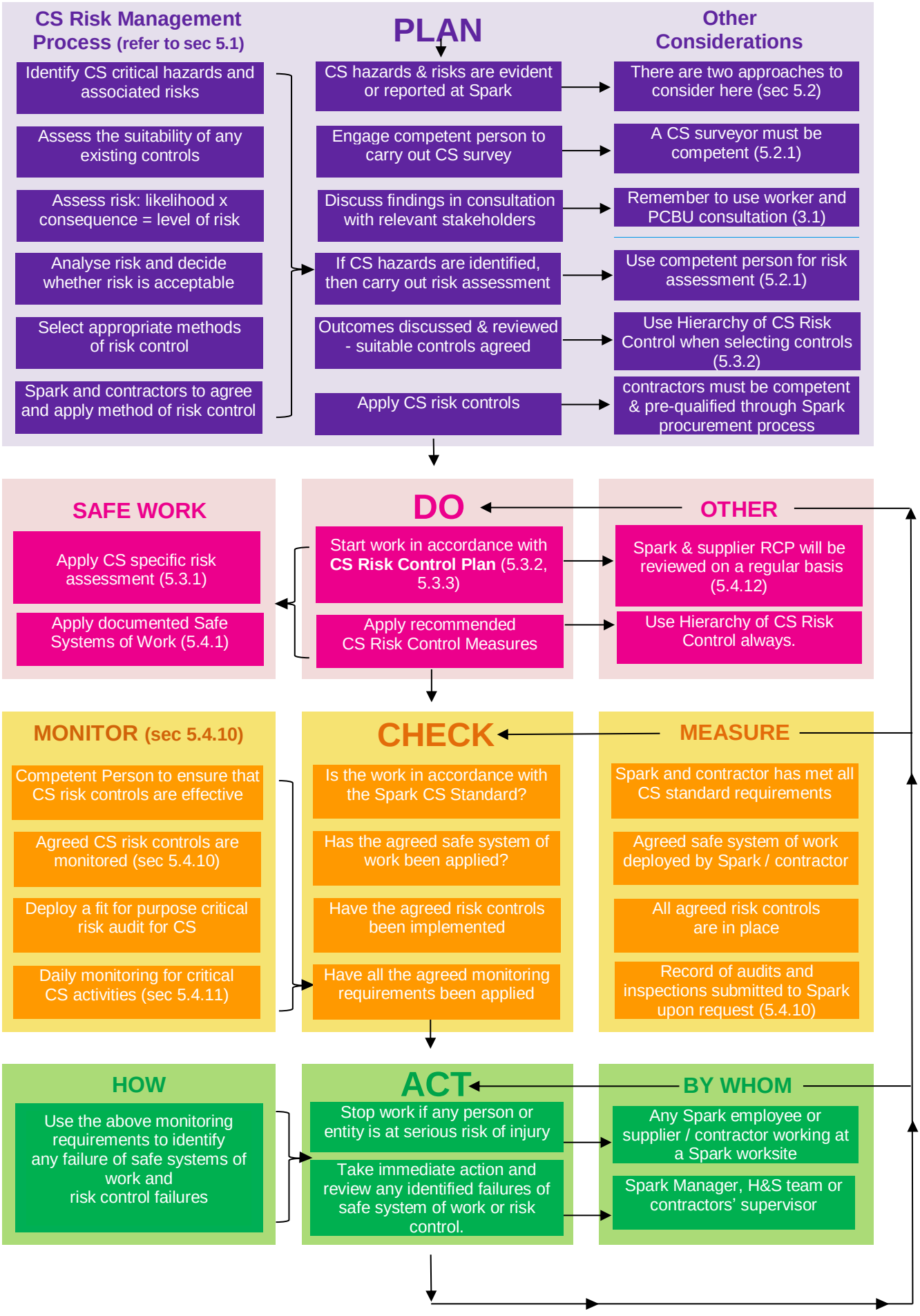
Standards (legal and other requirements)
Legal and other requirements (e.g. SWI, COP, Guidelines and Standards etc.) must be first identified and applied, since agreed risk control measures are unlikely to be appropriate and effective if they do not satisfy the same requirements.

Do
This part of the PDCA approach consists of implementing CS risk control measures as agreed in consultation during the planning and design stage of the same process. For our suppliers, this would include documenting and applying safe systems of work, such as task specific risk assessment and Safe Work Method Statements (SWMS), Job Safety Environmental Analysis (JSEA), work permits and daily pre-start meetings where applicable.

Check
The minimum requirement for checking is monitoring. This is to make sure that agreed risk controls are effective, realistic and practical in their execution by both Spark and their suppliers and have met with the agreed task specific risk controls as detailed within any pre-submitted safe systems of work.

Act
The Act element is achieved by regularly reviewing and acting on all issues raised within the Check (e.g. monitor and measure) element of the PDCA sequence and discussing with all those involved within the same process e.g. w*hat is and what isn't working? Are current controls adequate to protect people when working in CS, and suitable means of emergency rescue where applicable.*

4.2. Plan Do Check Act – Confined Spaces (CS)



5. Managing Confined Spaces at Spark

This section outlines how CS hazards and risks will be managed at a Spark worksite.

The objective of the below process is to make sure that Spark establish a safe working environment in which exposure to CS activities and its associated risks are, where reasonably practicable, eliminated or minimised always. In addition, suitable risk assessments will be carried out to make sure that all known hazards and recommended risk controls are recorded and made available to workers accessing a specific hazardous area.

This following process has been designed to make sure that:

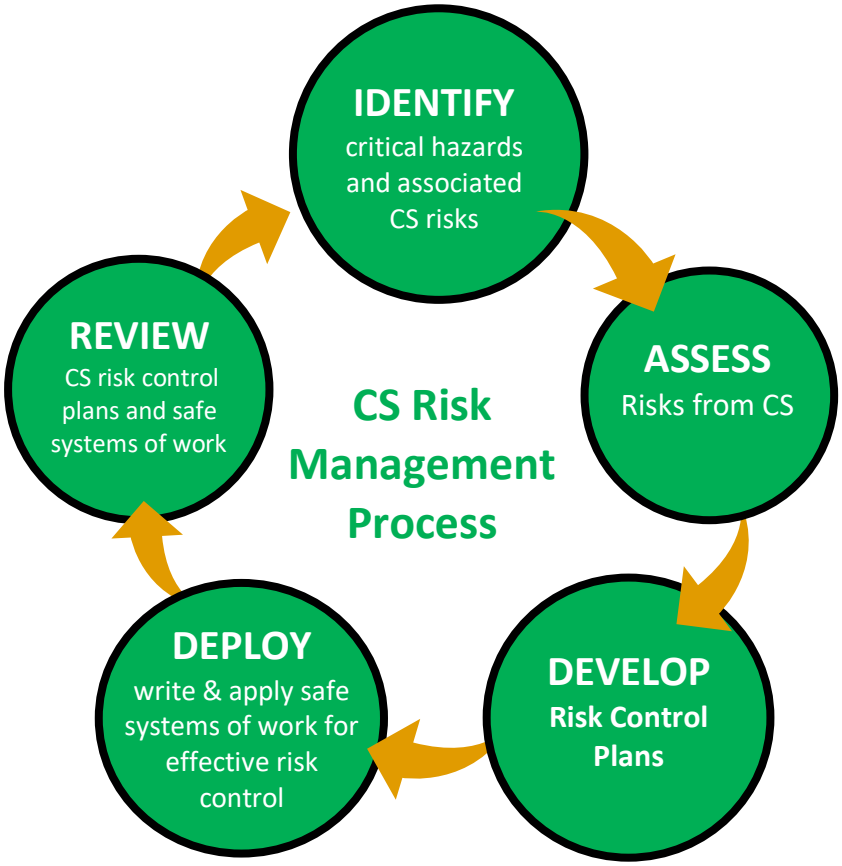
- Both Spark and suppliers work activity related CS hazards and risks are identified, assessed, controlled and monitored, and that any other CS related hazards and risks are considered and controlled always.
- Safe systems of work are developed and implemented using the Hierarchy of CS Risk Control.
- Safety in design is given consideration at the planning stage in all circumstances.
- Suitable risk controls and safe access to CS are deployed and monitored, once they have been risk assessed.
- Sound advice is given on the use of suitable plant and equipment (including PPE) for confined space activities.

In general terms, Spark will so far as be reasonably practicable, identify and control confined space hazards and risks as per the management process in Diagram 1 below:

5.1. Confined Spaces (CS) Risk Management Process

The following process is to be applied where Spark has known CS critical hazards and associated risks.

Diagram 1



5.2. Identify

Confined Space hazards and associated risks will be identified by using two different approaches at Spark:

First, Spark will carry out risk assessments to identify CS hazards that are specific to their network assets and high risk working environments (such as exchange buildings etc). This will be carried out using processes such as:

- Desktop surveys e.g. information already available about a worksite
- Safety in design workshops
- Worksite observations carried out with Spark employees and suppliers where applicable
- CS surveys and risk assessments carried out by a competent person
- Hazard reporting through Risk Manager and Spark's Intranet site
- CS Incident reporting and noticeable trends
- CS issues noted through H&S audits and inspections across the Spark network

Second, Spark suppliers or contractors, will identify and assess their own CS hazards and associated risk when carrying out work in a space that becomes a confined space, and when works within a space would generate harmful concentrations of airborne contaminates or flammable atmospheres. In this instance, the supplier or contractor would be expected to carry out their work safely through ongoing consultation with Spark and by using the Hierarchy of CS Risk Control always, along with the deployment and use of a suitable Risk Control Plan (5.3.2, 5.3.3).

5.2.1. Competency requirements

Any Spark person or external subject matter expert, involved in undertaking CS surveys and risk assessments at a Spark worksite (including offices), must have gained competency through a combination of knowledge, experience and training. This person would need to have as a minimum, 3 years' experience in application of H&S risk management for CS activities and gained suitable training at a base level of NEBOSH International certificate and/or Unit Standard 17599 *Plan a Confined Space Entry,* or equivalent (i.e. Europe or Australasia qualifications).

Any Spark manager assisting with either Spark, supplier and contractor CS risk assessment processes; or assisting the Spark H&S team in reviewing suppliers and contractors H&S systems and documentation, will require suitable training such as NZ Unit Standard 17599 - *Plan a Confined Space Entry*.

5.3. Assess

5.3.1. Risk assessment

Spark and its suppliers have a responsibility to ensure so far as is reasonably practical, that a person's exposure to CS (and its associated hazards and risk) are eliminated or minimised always. Please refer to page 8: Spark Risk Assessment Model

Once Spark have identified any CS hazards at one of their worksites or offices, or hazards and risk relating to works carried out at the same by a supplier. Then a suitable risk assessment process with assistance from a competent person, will be applied to assess the likelihood and consequence of exposure to any of the following CS associated risks:

- oxygen concentration outside the safe oxygen range
- concentration of any airborne contaminant that may cause impairment, loss of consciousness or asphyxiation
- flammable airborne contaminant which may cause injury from fire or explosion
- engulfment in a free flowing solid or a rising level of liquid which may cause suffocation or drowning

Suppliers and contractors will be requested to carry out their own risk assessment when works within a normal space would generate harmful concentrations of airborne contaminates, or create a flammable atmosphere and therefore, becoming exposed to the above risks.

Risk Assessment Model

RISK RATING TABLE				
Likelihood of Injury or Harm to Health	Consequence of Injury or Harm to Health			
	Insignificant (No Injuries)	**Moderate** (First Aid and/or Medical Treatment)	**Major** (Extensive Injuries or Harm to Health)	**Catastrophic** (Fatalities)
Very Likely	**Medium**	**High**	**Very High**	**Very High**
Likely	**Medium**	**High**	**Very High**	**Very High**
Moderate	**Low**	**Medium**	**Very High**	**Very High**
Unlikely	**Low**	**Medium**	**High**	**Very High**
Highly Unlikely	**Low**	**Medium**	**High**	**High**

5.3.2. Risk Control Plan

Suitable risk control measures must be applied to protect personnel working in a known confined space, by using a descending grading of controls as listed in the Spark Hierarchy of CS Risk Control, as shown below in diagram 2

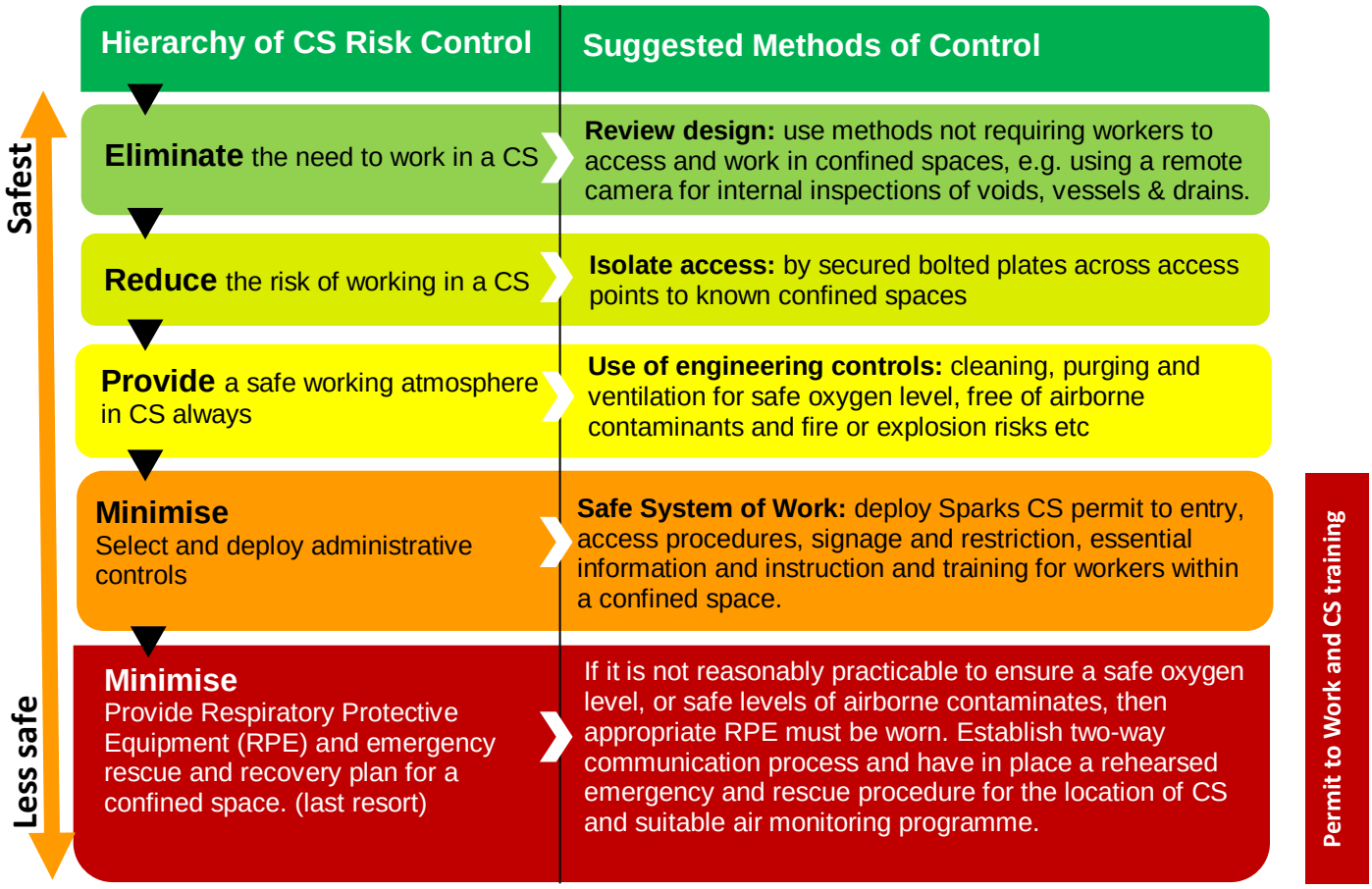


Diagram 2: Hierarchy of CS Risk Control

5.3.3. Spark and Supplier

Spark will eventually list and document their own CS Risk Control Plans (e.g. risk assessment and risk register) at applicable worksites, by means of a worksite safety plan. This will be achieved through the introduction of Spark's H&S Risk Manager Information Management System (RMIMS).

For Spark suppliers, the above hierarchy within diagram 2, is to be applied before work commences, and recorded into a Safe Work Method Statement - SWMS (or similar), assisted by daily prestart meetings where applicable. (see safe systems of work below).

Each Spark and Supplier CS risk control plan for critical risk CS activities (i.e. working within a confined space where it isn't reasonably practicable to ensure a safe level of oxygen, or safe levels of airborne contaminates and respiratory equipment, such as self-contained breathing apparatus as required), will be either internally or externally reviewed by a CS SME, the Spark H&S team and respective Spark Asset Manager, and before any agreed risk controls are applied.

Where CS risks have been controlled by means of a **minimised** risk control (e.g. personal protective equipment), then this type of control must be only applied and monitored, if it was not reasonably practicable to eliminate or reduce the same risk, by using a hierarchal approach and applying better means of risk control other than minimisation - refer to the Spark Risk Control Plan 5.3.2.

5.3.4. Safety in Design

Safety in design is the most effective and applied process for **eliminating** hazards and risks from identified CS across the Spark network. i.e. don't have persons entering CS at all, or no need to enter the space in the first place.

Before purchasing and installing any new services, plant or equipment at a Spark worksite. Both Spark and their suppliers should apply a safety in design process and risk assessment for its location at the worksite and consider any ongoing maintenance requirements prior to its installation. This is to make sure that where reasonably practicable, confined space risks relating to the same services, plant and equipment are eliminated or reduced always.

5.3.5. Eliminating or reducing foreseeable risks through design

Spark, suppliers and contractors must consider CS risks people may be exposed to through the passage of both installing services and plant and using it once it's installed. When controlling hazards and risk by design the following questions should be considered when carrying out a safety in design assessment:

- Can Spark and their suppliers get rid of the problem (or hazard) altogether. For example, can the process be redesigned to activate or restart certain equipment remotely outside of the confined space, or directly pipe material into the application point without access required, or design the workplace so that any essential maintenance can be done outside of the space.

- If not, how can they reduce or control the risks so that harm is unlikely, or the potential consequences less serious. For example, can we place steel secured plates across access points to known confined spaces, or deploy ventilation within a confined space to ensure safe levels of oxygen.

If risks cannot be eliminated altogether, a design approach should apply to the principles below in deciding how to reduce or control the remaining risks – if possible, in the following order:

- Provide a less risky option
- Make provisions so the work can be organised to reduce exposure to CS hazards
- Ensure that those responsible for planning and managing the work are given the information, instruction and training, they will need to manage any remaining risks

In summary, confined space hazards and risks need to be considered alongside other factors that influence the design, such as cost, practicality and fitness for purpose. Working with suppliers and contractors (including third party contractors) involved in the purchase and installation can help identify the potential risks and ways that they may be controlled.

5.4. CS Documented Processes - Safe Systems of Work

5.4.1. Safe System of Work

A written safe system of work should be developed before work commences and be practical and easy to follow; and where practicable, be aligned with H&S legislation and industry best practice and include the following steps:

- determine whether a space is a confined space (see 5.4.2 and 5,4,4);
- If yes, then apply for a Spark permit to access a confined space (see flow chart 5.4.4)
- develop and apply a SWMS (or similar) specific to the work location, and always in worker consultation
- deploy a risk control plan using Hierarchy of Confined Space Risk Controls (see 5.3.2)
- deploy applicable emergency rescue arrangements for people working within CS (see 5.4.7 & Sect 8)
- relevant training/competency requirements in place to complete the works including; rescue recovery, standby person requirements, use of a harness system and RPE. If CS are deemed volatile, then the use of correct and suitable RPE must be worn by competent workers (5.4.8, 5.4.9)
- continual monitoring and reviewing of deployed CS risk controls (5.4.10, .11, .12)

5.4.2. Correctly Identifying a Confined Space

As already detailed within this standard, CS at a Spark worksite could typically be (or have the potential to be) any of the following spaces: (see 5.4.4)

- hatch access cable well
- walk in cable well
- external access point
- a space becoming a confined space if the works executed within would generate typical hazards and risks e.g. welding and use of solvents within a Spark cable well

However, correctly identifying CS using a structured and regulated process, is essential before any of the above or potential spaces become a confined space and whereupon, a Supplier or Contractor must then apply for a Spark permit and carry out a suitable CS risk assessment.

5.4.3. Restricted Spaces at Spark

Generally, this type of space is easily accessible well ventilated and does not carry the same risks as the above Spark CS. In these cases, the Walk-in Cable Well will be designated a working area (with appropriate signage), rather than a Confined Space with permit requirements and characteristic CS risk controls and safe systems of work.

The following flow chart offers guidance to Spark, supplier and contractor, when determining a Confined Space.

5.4.4. Correctly identifying CS at Spark worksites: Is the work space a Confined Space?

Is the space confined or just a working space?

The associated risk with CS depends on how much of the space is enclosed – not just the size of the space.
For clarity please follow the process below.

Nature of the Space

Ask yourself the following:

- Does the size and/or location of the space make it physically difficult to get in and out of, or problematic to remove an injured or unconscious person from the space?
- Is the space designed or not intended to be at normal atmosphere pressure while a person is working inside?
- Does this space have known poor ventilation?

→ **YES** follow the 7 step process on the right

NO ↓

Is there risk of one or more of the following in a space?

- Loss of consciousness or asphyxiation arising from gas, fume, vapour, dust or lack of oxygen within the space.
- Death or serious injury: due to fire or explosion. (not applicable in an open environment)
- Engulfment from an increase in the level of a liquid such as oil or water, in which a person could drown.
- Asphyxiation arising from a free flowing solid or being unable to reach a respirable environment due to be being trapped or engulfed by such a free flowing solid.
- A space becoming a confined space if the works to be executed within, would generate harmful concentrations of airborne contaminates.

→ **YES** follow the 7 step process on the right

NO ↓

Not a Confined Space

1. **This is a Confined Space**
2. **Apply for Spark Confined Space permit via Spark Website**
3. **Conditions for entry are provided to supplier by Spark before gaining access.**
4. **All required H&S documentation is supplied to Spark for review**
5. **Documentation is reviewed, or further detail is requested. If satisfactory NOC is notified**
6. **NOC issue the permit to contractor**
7. **Contractor executes works safely and in accordance with their pre-submitted safe system of work.**

5.4.5. Permit to Work

When a space has been identified as a confined space, that needs to be accessed for pending work. Then a CS work permit must be applied for, completed and deployed by the supplier, contractor or third-party contractor.

Permits requests are only required for Confined Space activities, which have the potential to impact persons working within, or others stood outside the space and are not required for restricted spaces. (see section 5.4.2).

Where applicable, all approved permits will remain 'live' until works are fully completed and then, deactivated by either NOC, Spark manager or Spark delegate.

Before applying for a Spark permit to enter a CS, the supplier or contractor must make sure that, all other higher-level risk control methods have been considered, before entering and working in the same confined space; and they have developed and submitted a suitable risk assessment /SWMS, that details the addressed risk controls specific to that space, competent personnel, safety equipment/PPE and emergency rescue and recovery plans, where applicable.

Spark will supply the below permit requirements in either electronic or hard copy, depending on the situation or location at the time of its application. However, if a supplier or contractor has already developed and deployed their own CS permit system - which is equal in requirements to that of Spark's permit system; then this system may be used in its full application upon review and approval from the Spark H&S team. NB: Please allow 10 working days pre-work activity for CS Spark work permit requests.

Note, the Spark permit to access process will be incorporated into Spark's NOC conditions for site access into high risk environments at Spark worksites Nov 2018, as detailed below:

The following pre-entry requirements will form part of a permit to access process, for entering and working within a confined space at Spark and must be completed by the supplier or Contractor prior to accessing any known confined space at a Spark worksite.

CS pre-entry requirements	Yes	No	NA
1. Have you (named supplier or contractor) carried out a pre-work risk assessment and safe working method statement (SWMS) that details suitable risk controls, competent personnel, equipment / PPE and emergency plan where applicable	☐	☐	☐
2. Have all personnel involved in the CS been briefed on the works, including: location, method of communications and who to contact in an emergency?	☐	☐	☐
3. Has the work area / confined space been surveyed prior to entry by a competent person	☐	☐	☐
4. If the space has been risk assessed as a volatile atmosphere (i.e. a space that contains unsafe levels of oxygen or airborne contaminates), will monitoring be done continuously while the space is occupied?	☐	☐	☐
5. If volatile, will the space (including contents) be purged, cleaned and ventilated for safe entry and electrically / mechanically isolated and locked out for safe access and working atmosphere within the breathing zone.	☐	☐	☐
6. Will the levels of ventilation and oxygen/contaminates be checked? for the following items: Oxygen % – Flammable gases% - Toxic PPM	☐	☐	☐
7. Is a Standby Person/s required? If yes, have they successfully completed the required unit standard training and is this training current?	☐	☐	☐
8. Will workers who are involved in the task receive training in confined space entry and first aid and receive a pre-entry briefing including, identifying and using PPE and emergency procedures?	☐	☐	☐
9. Where applicable, will a named person be present who has the required competency to check that monitoring equipment is being used correctly, is suitable for the type of monitoring required, calibrated and in safe working order?	☐	☐	☐
10. Have all workers received training on the safety equipment to be utilised during a confined space emergency rescue, recovery and communication procedures?	☐	☐	☐
11. Will all rescue and recovery equipment be identified in the agreed SWMS, made available in the correct position and location and in good working condition always. Note: where applicable all emergency equipment e.g. tripod, winch and harness must be self- supplied.	☐	☐	☐

5.4.6. Safe Work Method Statement (SWMS)

All critical confined space activities carried out by suppliers or contractors, are to be incorporated into a SWMS document, or similar. This type of H&S process is also sometimes referred to as a Safe Operating Procedure or Job Safety and Environmental Analysis (JSAE). All CS risk assessment and SWMS should be developed, implemented and actively monitored by those who carry out the work.

All submitted SWMS should as a minimum contain the following information:

- ✓ A description of the work to be undertaken
- ✓ A step by step sequence of completing the work
- ✓ The risk assessment (including likelihood and consequence) of potential CS hazards and risk likely to be caused associated with each step of the work
- ✓ The H&S risk control measures to be applied to control each of the identified hazards
- ✓ Precautions that will be taken to protect the health and safety of other people
- ✓ The names and qualifications of people who will be undertaking the work
- ✓ A description of relevant CS training to have been completed by people doing the work
- ✓ Identification of plant and equipment required on site to complete the work
- ✓ Emergency preparedness and procedures for CS critical risk activities
- ✓ Identification of mandatory or task specific PPE / RPE to be worn by all those involved in the work
- ✓ Identification of the person (or position) that will be responsible for supervising the work and deploying and monitoring risk controls

Most risk assessments (and SWMS) are usually completed by supplier's or contractor's supervisors. However, it is important that this is done in consultation with those who carry out the work and discussed at daily prestart meetings, where applicable.

5.4.7. Confined Space Emergency Procedures & Rescue Plan

In nearly all instances, CS emergency procedures and plans (for rescue and recovery) will form part of a contingency plan, normally where several minimised controls have been applied e.g. pre-access testing, continual monitoring by a Standby Person and use of PPE /RPE.

The details required around these procedure and plans, will mainly depend on the nature of the confined space being accessed, the hazards and risks identified within and consequently, the likely nature of an emergency rescue being deployed. Therefore, when things go wrong with dire consequences, correctly identifying effective arrangements for raising the alarm and carrying out rescue and recovery operations in an emergency is essential.

When establishing emergency procedures, they must be specific to the location of the confined space i.e. the geographical location, accessibility in an emergency and how far away is it from the nearest medical facilities and emergency services, and the likelihood of prompt assistance from either one of them, should a critical emergency arise.

All potential CS emergency scenarios must be identified and assessed by suppliers and contractors always; and once identified and assessed, each scenario must be formulated into an emergency rescue and recovery plan and applied when a person is working inside and / or outside of a confined space. The plan should also outline the immediate actions required of all workers directly involved, be made readily available to all the people carrying out the work and where applicable discussed at H&S pre- start meetings.

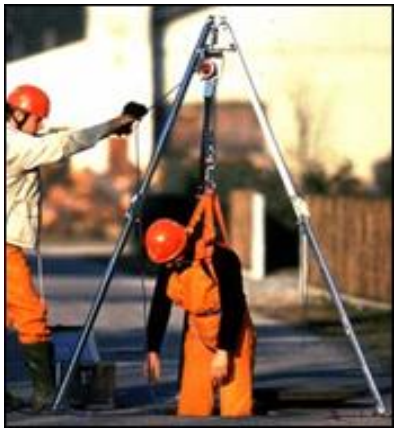
Rescue and Recovery plans for CS should include as a minimum, the following information: (see example section 8)

- Emergency numbers (including local emergency services if they are to be relied on for assistance)
- Recovery means (selected rescue equipment should be relevant to the worst-case scenario and kept close to the confined space always so that is can be deployed quickly.
- Recue kits
- Communication to be used during rescue (how can workers inside the space communicate to people outside in an emergency)
- How to raise the alarm (exactly how will the alarm be raised and by whom)
- Rescue team members (when considering capability of rescuers, are they properly trained first aid personnel, sufficiently fit to carry out their task and capable of using any equipment provided for rescue)
- Appointed Standby Person/s for continual monitoring

- Who should take on the rescue, how it should be deployed and how will rescuers be protected from hazards and risks during emergency operations.
- Training requirements

In summary, suppliers and contractors must plan for emergencies and rescue, i.e. agree a set procedure for rescue and recovery, and where applicable supply their own emergency equipment e.g. tripod, winch and harness, think about any foreseeable situations and make sure workers who do the work are fully aware of the same emergency procedures.

More importantly, don't just rely entirely on the emergency services for rescue in your plan.
Refer to section 8 for suggested rescue plan framework when working in a confined space.



Examples of simulated emergency rescue and recovery situations for confined spaces.

5.4.8. CS Training and Competency Requirements

All personnel involved in CS entry (including planning and standby personnel) shall meet the training and competency requirements outlined in the relevant legislation. Where applicable, personnel shall complete a refresher course and sit a re-assessment test.

Unit Standards
Refer to the table below for the relevant NZQA Unit Standards for CS. These are the minimum requirements for a person to perform work in a Confined Space at a Spark worksite.

Unit	Standard
17599	Plan a Confined Space entry
25510	Operate an atmospheric testing device to determine a suitable atmosphere exists to work safely

Note: A qualification of equal standard may also be sufficient provided the correct approval has been obtained from the Spark H&S team.

Where a volatile confined space has been identified and risk assessed, permit issued, and risk controls implemented, the supplier or contractor will have trained Standby Persons (i.e. additional Standby Persons will be required) in place, to monitor the safety of the worker/s inside the space and act accordingly, should an emergency arise; and ensure there is a reliable system of communication in place such as: by voice, radio, hand signals and hard-wired communication etc.

So, before a worker enters a Spark Confined Space, a Standby Person/s is to be assigned to continually monitor the safety and wellbeing of those entering and working inside the space; and where practicable, observe the work being carried out and initiate appropriate emergency procedures when necessary.

Rescuers need to be properly trained people, confident and sufficiently fit to carry out their task, ready to hand and capable of using any equipment provided in the event of a confined space emergency rescue and recovery situation.

In some cases, the conditions in CS are always extremely volatile. In other cases, conditions are only life threatening under an unusual combination of circumstances. This variability and changeably in a confined space environment is why the process of hazard and risk management is extremely important and must be carried out by competent and trained workers.

Workers who work within CS, must have received suitable training and supervision provided by their employer, along with the skills and knowledge to understand the hazards and risk associated with working in CS, the requirements of Spark's CS entry permit and any risk controls measures applied for the protection of workers and others in relation to the work.

5.4.9. Personal Protective Equipment

If it is not reasonably practicable to ensure a safe working environment within a confined space, through the deployment of ideal risk controls, then appropriate Respiratory Protective Equipment (RPE) must be worn. This must be the last option of control in any developed and deployed risk control plan (see 5.3.2) and where all other controls within the Hierarchy of CS Risk Controls, were not reasonably practicable to apply.

When RPE is required, this would indicate that a volatile environment has been identified within a confined space (i.e. a space that contains unsafe levels of oxygen or airborne contaminates). In this instance, RPE should also be provided and worn where there is no exposure standard for a substance, or where the substance is present in an unknown concentration.

If there is an unsafe oxygen range or contaminants are immediately dangerous to life or health, the following requirements will always apply:

- Emergency rescue and recovery plans must be prepared and agreed upon by a competent person; and before entry into the space, the agreed rescue plan and recovery equipment (e.g. tripod and winch), must be trialled before commencement of any works at that worksite.
- In all circumstances, any type of Supplied Air Breathing Apparatus (SCBA) with full face piece and Emergency Breathing Apparatus (EBA), must be used for protection by competent / trained workers entering the confined space.
- A lifeline and / or harness must be used where applicable, to assist rescue from outside the confined space, by means of a suitable recovery system.
- When risk assessed as essential, any work in progress within a space must be monitored at the entry point by two trained Standby Persons, with equal protection in attendance always e.g. Supplied Air Breathing Apparatus SABA and EBA backup or Self Contained Breathing Apparatus (SCBA). NB. in this situation only one Standby Person can ever enter the space at any one time.

In the above instance other controls should have been already considered and applied, such as cleaning, purging and ventilation; along with entry and access procedures, signage and restriction, two-way communication, Standby Persons and continual air monitoring and emergency rescue**.**

When working in CS, all necessary PPE shall be used. Details for types of PPE/ RPE required for specific locations are beyond the requirements of this standard, but in general PPE/RPE should meet with the following requirements:

- appropriate and specific for the proposed task and the risks involved within the confined space
- effective to prevent or adequately control the risk or risks
- fit the worker correctly, and compatible with other PPE/RPE equipment being worn
- the selection of PPE/RPE has been agreed through worker consultation i.e. involving the person/s using it
- any PPE supplied to workers for use within a confined space is appropriately maintained, replaced and cleaned as appropriate in a hygienic and efficient state, in working order and in good repair always.
- Standby Person must meet the same PPE/RPE and training requirements as the workers inside the confined space, to enable them to provide any assistance that may be required.
- All PPE/RPE (including safety belts, harnesses and life-line ropes) must meet with applicable AS/NZS standards.

NB. confined space access /egress points must be large enough to allow for the passage of a worker using PPE/RPE



5.4.10. Monitor

Workplace monitoring for confined space activities and risk controls will be carried out by both Spark and their suppliers/contractors, when considered as critical. Spark will monitor their most critical CS activities through a structured H&S internal/external audit programme.

The following monitoring requirements may apply at Spark.

- On site monitoring/audit (Spark Managers & Spark H&S team- refer to section 2.3)
- Spark Risk Management Standard internal audits
- Hazard and incident reporting
- Request from Spark to supplier / contractor to carry out worksite H&S inspections

Spark suppliers are required to periodically audit their own CS performance through a fit for purpose H&S audit and inspection process. All these requirements must be included into a pre-work submitted risk control plan e.g. SWMS, or similar process.

5.4.11. Physical Monitoring and Testing of Air Quality

Conditions within a volatile confined space should be continuously monitored when, for example forced ventilation is being used, and where the work activity could give to change in the atmosphere.

Physical monitoring within CS may be achieved by using fixed monitoring within a specific zone, to protect many workers, or using personal / portable monitors worn by individual workers. Further to this, where applicable (and identified through risk assessment), suppliers and contractors working in CS are to test the air prior to accessing a volatile space and deploy monitoring techniques as above. Testing the air may be necessary to check that it is free from both toxic and flammable vapours, and that it is fit to breath; and where pre-exit testing and risk assessment indicates that conditions are changeable, and where further precaution continuous monitoring of the air may be needed.

These exact testing and monitoring requirements should be assessed and defined by a competent person always. And where essential, suppliers and contractors take advise from a competent person, when selecting the required monitoring and detecting equipment. This selection will normally depend on the circumstances and knowledge of possible contaminates.

As oxygen and gas levels in a confined space can change quickly, there should be an alert for any change in condition.

5.4.12. Review

Any of Spark's already established worksite CS risk assessments, will be reviewed every two years for effectiveness i.e. are all identified hazards and risk control measures working effectively in both design and operation, or when any of the following applies:

- When new plant and equipment has been purchased, installed and the risk could not be eliminated through design or other.
- A reported confined space hazard that requires urgent rectification or remedial action, within a given timeframe
- A change to a previous reviewed and agreed safe system of work which has further improved the existing method of risk controls
- Recommendations made from a formal workplace audit or inspection
- Known industry changes and improvements made to further control CS hazards and risk, that Spark and supplier ought to reasonably know about in most circumstances
- An incident has occurred because of work being carried in a confined space.

Where applicable, supplier and contractor reviews will be requested from Spark and carried out between Spark, selected suppliers / contractors and involve workers through a consultative approach.

6. Other Confined Spaces Essentials and Hazards

6.1. Spark Confined Spaces

As already detailed within this Standard, a confined space at a Spark worksite could potentially be any of the following spaces:

6.1.1. Hatched Cable Well

an internally accessed hatchway, leading to a utility vault used to house an access point for making connections, inspection, adjustments or performing maintenance on underground and buried telecommunication utilities.

6.1.2. External Worker Access Point

an access ppoint, which is the top opening to an underground utility vault, primarily used for making connections, inspection, valve adjustments. or performing maintenance on underground and buried public utility and other services (including sewers, telephone, electricity, storm drains, district heating and gas).

6.1.3. Walk-in Cable Well

a walk in utility vault used to house an access point for making connections, inspection, adjustments or performing maintenance on underground and buried telecommunication utilities.
Generally, this type of space is easily accessible well ventilated and does not carry the same risks as the above Spark CS. In these cases, the Walk-in Cable Well will be designated a working area (with appropriate signage) rather than a confined space with permit requirements, suitable risk controls and safe systems of work. (refer to section 5.4.2. for correctly identifying a confined space).

6.2. Essentials for Suppliers and Contractors

The following essentials offer additional guidance for suppliers, contractors and their workers when entering and working within identified CS across the Spark asset and property portfolio:

6.2.1. Pre-worksite visit

Before accessing any types of CS, a physical visit and pre-work risk assessment of the work area and confined space needs to be executed by the supplier's or contractors nominated competent person (see section 5.2.1 for definition of a competent person) and the person/s carrying out the work. NB. any pre-air quality testing for safe access into the same confined space, must also be carried out on the day of the works and not just during the above pre-visit risk assessment.

6.2.2. Worker Consultation and Participation

When carrying out a pre-work visits for CS risk assessment, suppliers and contractors must always involve the workers, when developing and agreeing on a safe system of work i.e. always involve the persons doing the work, so they can understand the nature of the hazards and risks inside the confined space; and be able to recognise signs and symptoms, that they may experience when working in CS.

6.2.3. Lighting and special equipment

In most instances, sufficient lighting has already been provided within many of Spark identified CS, either by fixed or temporary means. Where this is not the case for certain CS, then the supplier / contractor is required to identify and supply any additional lighting needs from their pre-work risk assessment, by means of temp lighting or torch and head lamp. N.B. in some cases, non-sparking tools and specially protected lighting are essential where flammable or potentially explosive atmospheres are likely within a volatile confined space environment.

6.2.4. Access / Egress

Where reasonably practicable, safe means of access and egress into and leading out from CS, will be identified and supplied through Sparks ongoing CS risk assessment programme, to include: swing gate access, collapsible hatched cable well guardrails and gate access, handrails, fixed ladders, platforms and walkways. Where it is not reasonably practicable to provide fixed access / egress into a Confined Space (namely, a space becoming a confined space if the works executed within would generate typical CS hazards and risks), then suppliers and contractors are required to identify and provide a suitable means of access identified through their pre-work risk assessment. N.B. all known access / egress point and safe means of access should always remain unobstructed by equipment, plant and materials, this includes permanent installation and temporary works within Spark's CS.

6.2.5. Isolation / Lockout

Mechanical and electric isolation of certain plant, equipment and energy sources is essential if it could, otherwise operate or be operated accidently and therefore, where practicable (and in consultation between Spark, supplier and contractor); all mechanical, electrical and other forms of energised equipment and energy sources (including: hydraulic, pneumatic, chemical, or thermal) or processes must be isolated (i.e. de – energised), or locked out if assessed as essential and in accordance with relevant isolation procedures, before any work is carried out within CS. In all cases, a check should made to ensure any applied isolation / lockout process is effective.

Examples of Isolation / lockout processes

6.2.6. Purging and cleaning

When required, all confined CS must be purged where a pre-work visit risk assessment has identified the potential for a confined space to contain unacceptable levels of contaminant. Any contaminants removed from the confined space, are to be expelled to a location where they prevent no further risk; and following purging, the space should be then adequately ventilated with sufficient fresh air to ensure that any inert gas is removed, and atmospheric testing is carried out by a competent person before entry, to ensure the ventilation has been effective. When flammable contaminants are to be purged, then purging and ventilation equipment designed for use in hazardous areas must be used.

6.2.7. Ventilation in confined spaces

All CS shall (where reasonably practicable), be ventilated prior to entry - regardless of expected egress time. Where site specific ventilation has been already installed within a space, then the suitability of such a system must be assessed for its adequacy during a pre- work assessment, carried out by a competent person e.g. mechanical engineer.

There are two main types of ventilation, natural or forced (mechanical). Either type should be deployed for confined space entry, to establish a safe atmosphere and desired temperature. In all instances, ventilation should be continuous throughout the period of occupancy and/or work to reduce the levels of risk for ongoing or unexpected release of airborne contaminants.

For natural ventilation to be effective, there must be two available ventilation points – one at low and one at high level. Forced ventilation can be achieved, by either blowing breathable air into the space and displacing the atmosphere within, or by sucking contaminated air out of the space and natural air pressure, forcing a breathable atmosphere into the Confined Space.

The selection of forced ventilation must be identified through a suitable risk assessment and equipment selection by a competent person, who can correctly identify technical aspects such as listed below:

- correct selection and application of intrinsically safety rated ventilation and equipment for explosive atmospheres.
- calculations required for CS that contain hazardous respirable substances, based on the volume of the space and the flow rates of the fan/blowers, to ensure a correct exchange rate of fresh air within the space.
- correct flow rates that ensure adequate protection of the atmosphere during work, or allows sufficient time to clear respiratory hazards, before work is commenced within the space
- recognise when at certain times, mechanical ventilation may not be adequate or reliable enough to maintain a safe atmosphere in the confined space breathing zone, and where ventilation will still reduce the risk, but RPE must still be worn.
- recognise where the fresh air is drawn from and where the exhaust air is eventually vented to, so that the fresh air is not contaminated either by exhaust air, or other pollutants.

6.2.8. Signage and Barricades

When a space has been identified as a Confined Space at Spark, then suitable signage will be placed at the main exit point to ensure where practicable, all worker information and instruction is always displayed to inform workers of CS hazards and risk outside and within the Confined Space.

Where it is not reasonably practicable to supply fixed CS signage, then signs and barricades must be displayed and erected in a suitable location by suppliers and contractors, to prevent unauthorised entry of persons (e.g. workers, public and visitors) not involved in the work.

All CS signage should be relevant to the hazards and risk within the space and warn against entry by people other than those who are listed on the suppliers / contractors SWMS and Confined Space permit to work.

All signage and barricades should be as close as possible to where the Confined Space is accessible including: prior to accessing the space, during the work in the space and when decanting the work area upon completion of works.

Examples of suitable CS signage and isolation / barricades

6.2.9. Other CS related Hazards

Other hazards that may be associated with Spark CS, are workers and visitors falling into open voids such as, holes or openings in the floor on a level surface. These voids are typically used for access points to CS, service ducting and inspection chambers for services.

Where a floor access hatch is rarely or no longer used in a Spark asset operation, then the same access point will be permanently secured / boarded over to eliminate the risks of workers or others falling into an open void on the same level surface. Before the work starts, supplier and contractors must carry out a suitable risk assessment and survey of the work area, to identify voids that need to be accessed; and decide whether current fixed controls in place are suitable, or if any additional risk controls such as creating exclusion zones with barriers and warning signs are required.

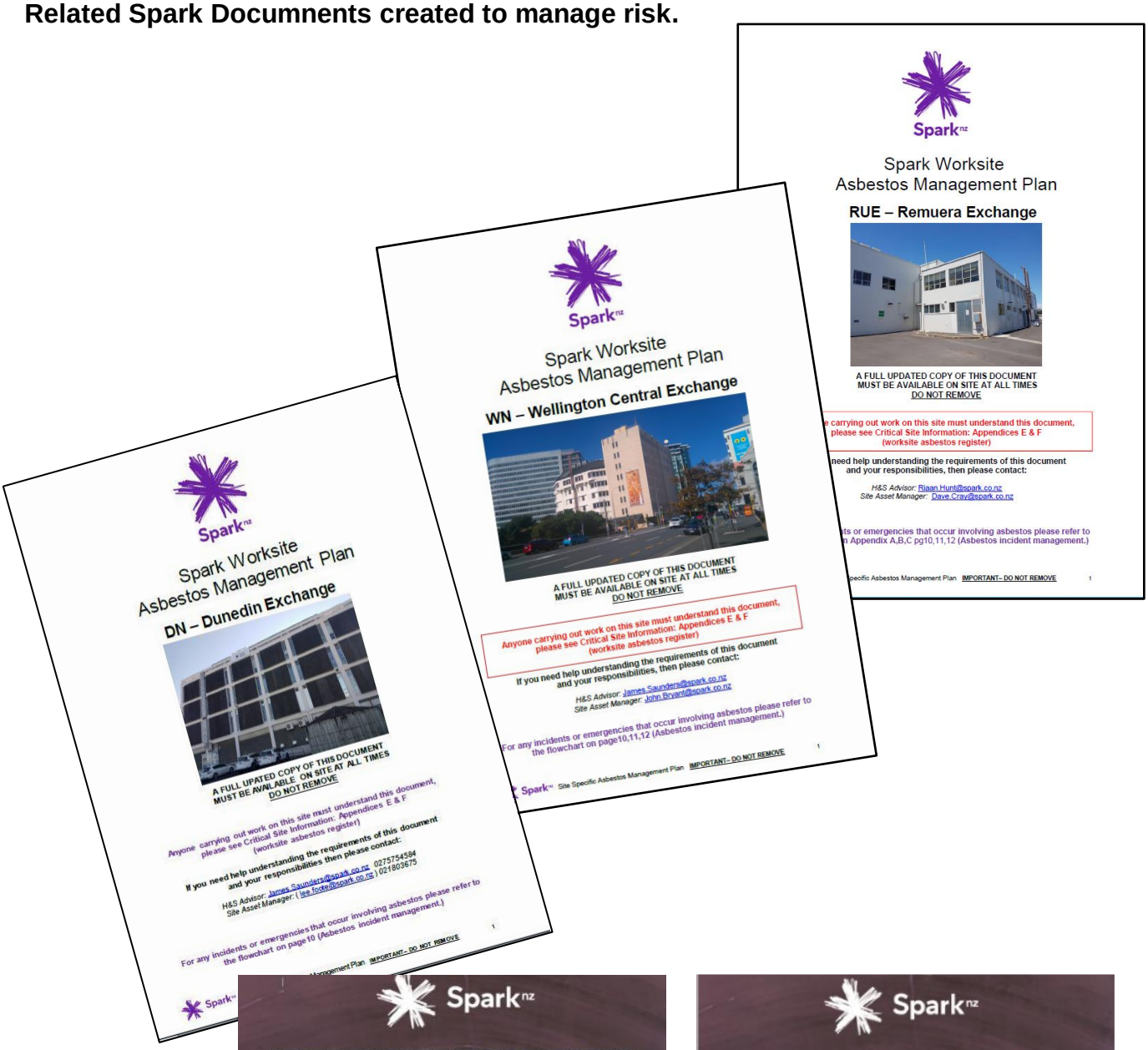
6.2.10. Asbestos

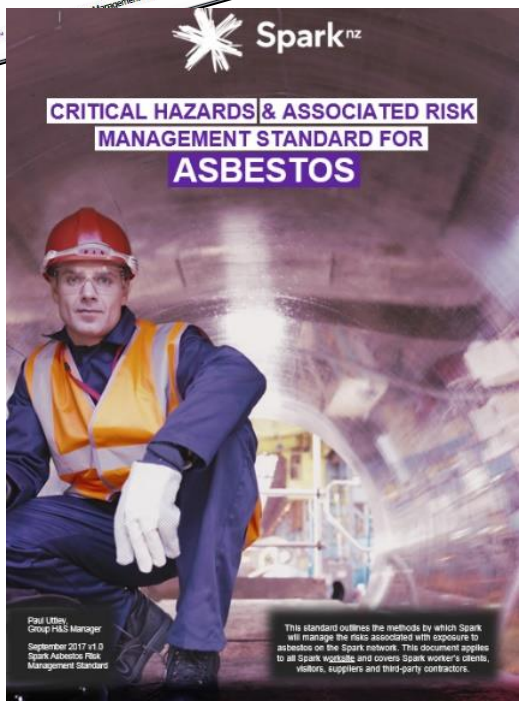
Many of Spark's technical buildings are known or suspected to contain asbestos or asbestos containing material (ACM). Spark's 'Critical Hazards and Associated Risk Management Standard' for Asbestos was recently developed to provide workers and third parties with safe and healthy workplaces by identifying and managing asbestos risks in its workplaces and those of its subsidiaries.

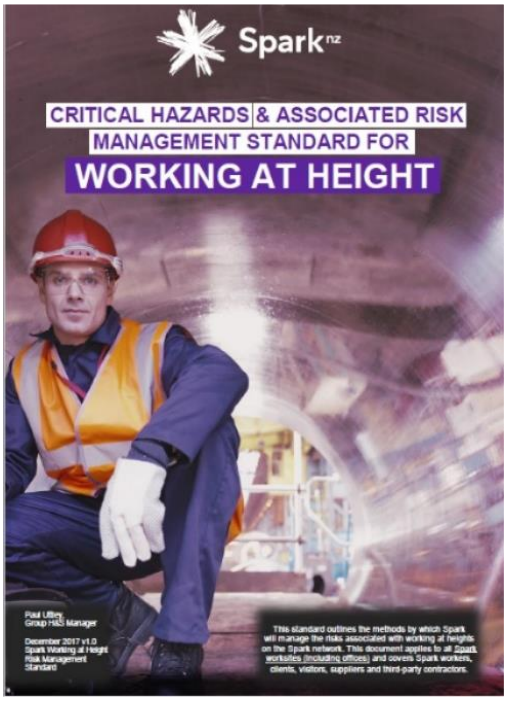
In all instances, suppliers and contractors must first locate any potential asbestos or ACM by utilising the Spark Worksite Asbestos Management Plan (AMP) for that worksite or asset. This AMP sets out the asbestos identified and risk controls that have been recommended to manage known asbestos risks, specific to a Spark worksite.

These risk controls must be applied by all stakeholders entering CS where asbestos or ACM has been identified or could be disturbed or damaged to ensure that so far is reasonably practicable, steps are taken to eliminate or minimise exposure to a person at this worksite. NB. in some cases all asbestos hazards and risk may not have been identified with the worksite AMP and therefore, where practicable the potential for finding, disturbing or damaging asbestos within CS, should be part of a suppliers or contractors pre-work visit risk assessment and control plan.

Related Spark Documnents created to manage risk.







7. Definitions of Key Terms & Acronyms

Refer to the table below for the definitions of key terms used in the document:

Term	Definition
Confined Spaces	A confined space is best described as an enclosed or partially enclosed space, that is not intended or designed primarily for human occupancy; where there is a risk of one or more of the following items: lack of oxygen, poisonous gases, fumes, or vapours, liquids and solids (which can suddenly fill in the space), fire and explosion, dust present in high concentration, hot conditions within the space, certain types of plant, equipment being used within the space and restricted and limited access in the space.
Restricted Space	Restricted Space is a Spark area restricted from people: due to the critical hazards and risk identified within e.g. High Voltage Equipment Rooms, Radio Frequency Antennae, Areas with Fire Suppression Gas Flood Systems. It does not apply to the nature of the space i.e. it does not indicate a confined space.
Risk Based Approach	A methodology for identifying Spark's critical hazards, assessing risk and then developing, applying, monitoring and reviewing mitigating risk controls.
Isolation / lockout Procedure	Is a safety procedure, which is used in industry to ensure that dangerous machines and equipment are correctly shut off and isolated, and not able to be started up again prior to the completion of maintenance or repair work?
H&S Risk Control Plan	A Risk Control Plan, states how to plan for the control of risks in the workplace, by using the hierarchy of risk control and methods of control by applying and being an essential part of a safe system of work.
PCBU	Person who conducts a business or undertaking
WAH	Working at Height
PM	Project Manager
SOP	Standard Operating Procedure
SWMS	Safe Work Method Statement
JSEA	Job Safety Environmental Analysis
TA	Task Analysis
SWI	Safe Work Instruments – to define terms, prescribe matters and make other provision in relation to any activity or thing. Lists standard, control of substances and competency requirements.
ACOP/COP	Approved Code of Practice – developed by Worksafe and approved by the minister under the HASAW Act 2015 and offers practical guidance to everyone engaged in hazardous work.
PPE	Personal Protective Equipment – means anything used or worn by a person (including clothing) to minimise risks to the person's health and safety.
NOC	Network Operations Centre at Spark
VOC	Verification of Competency
RPE	Respiratory Protective Equipment
SCBA	Self-Contained Breathing Apparatus
SABA	Supplied Air Breathing Apparatus
EBA	Escape Breathing Apparatus
CS	Confined Spaces

8. Rescue & Recovery Plan: Confined Space

The following plan or similar, is to be completed as part of a confined space safe system of work

PRE-START RISK ASSESSMENT

Ask yourself - have all other options been considered before applying a rescue and recovery plan? Carry out a risk assessment - try to look for a safer work method that doesn't require access in and out of this space. e.g. inspection, sampling and cleaning can be done from outside the space using appropriate equipment and tools. (please see 5.3.2)

Name of person/s carrying out this assessment:	

RESCUE OPTIONS

Detail what equipment is required to ensure fastest recovery of the person/s in the case of emergency rescue and recovery. e.g. hoist, winches, harness.

Type of hazards and risks identified within the confined space	
Type of rescue equipment to be used and why:	

WORKSITE LOCATION

A specific Spark worksite location is required in the event of recovering a worker from a volatile confined space atmosphere, should the rescue plan fail, and emergency services are needed. Please see 5.4.7 of Spark CS Risk Management Standard

Site location, e.g. region, building address, location and type of confined space within the building.	

COMMUNICATION

You will need to establish what continuous communication system will be used between persons inside and outside the confined space; and to summon help in an emergency e.g. by voice alone, radio, hand signals or other suitable methods of communication.

Type of site communication to be used:	
Emergency Services phone number:	

RESCUE TEAM MEMBERS

You need to establish a trained and competent team and detail "who is doing what" during the rescue on the day of the works. List your team members below including your Standby Person and their specific roles and actions in the recovery. Include how the alarm will be raised.

NAME & PHONE	ROLE	ACTION