

SAFE WORK METHOD STATEMENT	SWMS Working in an area that may have a Contaminated or Flammable Atmosphere		
<b>Reference documents</b>	Work Health & Safety Act 2011, Work Health & Safety Regulation's 2017. Codes of Practice - How to manage work health and safety risks August 2019, Work health and safety consultation, cooperation and coordination August 2019, Confined Spaces August 2019 P20 Inspection, Testing, and Monitoring, P16.F01 Confined Spaces – Permit to Work, P16.F02 Site Confined Space / Controlled Space Register, P25.F01 Hot Work – Risk Assessment Checklist, SWMS 1384 Confined Space Work, P28 Energy Isolation and Barricading		
<b>SWI:</b>	SWI86 – Self Contained breathing apparatus, SWI191 – Tag out, SWI23 – Gas Detector – use and maintenance		
<b>Training and Competencies</b>	General construction induction (white card), Site specific induction, Confined Space Training.		
<b>Safety data Sheets</b>	As determined by SWMS		
<b>Personal Protective Equipment</b>	High visibility clothing, safety footwear, safety glasses, task appropriate gloves, hard hat, additional P.P.E to be determined by risk assessment.		
<b>Plant and Equipment</b>	Gas detector, harness, karabiner and as determined by task		
<b>Inspection and Testing</b>	Prestart checks on all equipment		
<b>Hazardous Chemicals and Dangerous Goods</b>	As required		
<b>High Risk Work</b> <i>Indicate if any of the HIGH-risk activities are performed by workers</i>	<input type="checkbox"/> Where there is a risk of a person falling more than two metres.	<input type="checkbox"/> On in or adjacent to roadways, railways, shipping lanes or other traffic corridor.	<input type="checkbox"/> In, over or adjacent to water or other liquids where there is a risk of drowning.
	<input type="checkbox"/> At workplaces where there is any movement of powered mobile plant.	<input type="checkbox"/> Involving the use of explosives.	<input type="checkbox"/> In an area where there are artificial extremes of temperature.
	<input type="checkbox"/> On or near energised electrical installations or services.	<input type="checkbox"/> Involving a trench or shaft if the excavated depth is more than 1.5 metres.	<input type="checkbox"/> On or near pressurised gas distribution mains or piping.
	<input type="checkbox"/> Involves structural alterations or repairs that require temporary support to prevent collapse.	<input type="checkbox"/> Involving a confined space.	<input type="checkbox"/> On or near chemical, fuel, or refrigerant lines.
	<input type="checkbox"/> Involving tilt-up or precast concrete.	<input type="checkbox"/> On telecommunications towers.	<input type="checkbox"/> Involving diving.
	<input type="checkbox"/> Involving removal or likely disturbance of asbestos.	<input checked="" type="checkbox"/> In an area that may have a contaminated or flammable atmosphere.	<input type="checkbox"/> Involves demolition of an element of a structure that is load bearing or otherwise related to the structural integrity of the structure.
	<input type="checkbox"/> Involving a tunnel.		

<b>SWMS Prepared by:</b>	<b>Name and signature:</b>	<b>Date:</b>	
<b>Authorised by:</b>	<b>Name and signature:</b>	<b>Date:</b>	
<b>Persons Responsible for Ensuring Compliance with SWMS:</b>			
<b>Methods used to Ensure Compliance with SWMS:</b>			
<b>Persons Responsible for Reviewing SWMS Control Measures:</b>			
<b>When should Risk Control Measures be reviewed:</b>			
<b>Review Date:</b>		<b>Reviewer's Signature</b>	

*\*SWMS are to be reviewed as per the Document Control Procedure or when there has been a change to the Task / Process or Legislation.*

Job Step	Hazard	Risk	Initial Risk Rating E,H,M,L	Control Measures <i>Controls have been identified using the hierarchy of controls</i>	Responsibility <i>Who</i>	Residual Risk Rating E,H,M,L
<b>Pre-Start</b>	Lack of information to workers	Injury or illness	H	<ul style="list-style-type: none"> <li>Pre-start briefing to ensure all staff are fully aware of the scope of work before work commences.</li> <li>Ensure all persons have undertaken site specific induction.</li> <li>Conduct a Site-Specific Risk Assessment.</li> </ul>	Supervisor	L
	Inexperienced personnel	Injury or death Property damage	H	<ul style="list-style-type: none"> <li>Ensure all workers are trained and competent for the task before commencing on site.</li> <li>Ensure P.P.E is rated and/or capable of the environment.</li> </ul>	Supervisor and Competent person	L
<b>Public Safety / Pedestrians</b>	Public may be at risk from an environment	Serious Injury or illness		<ul style="list-style-type: none"> <li>Keep unauthorised person out of the site.</li> <li>Pedestrian signage is to be installed.</li> </ul>		

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	that have an artificial extreme		H	<ul style="list-style-type: none"> <li>• Instigate traffic management plans if necessary.</li> <li>• Reduce vehicle speed around the work sites.</li> <li>• Where required, clearly signed alternative safe laneways shall be made available for pedestrians.</li> <li>• Laneways crossing kerb and channelling shall have non-slip ramps suitable for wheelchairs, baby strollers, pedestrian scooters and aged or disabled persons.</li> <li>• Plan and use safe vehicle access.</li> <li>• Schedule working hours to limit exposure to the public.</li> </ul>	Supervisor and workers	L
<b>Contaminated Atmosphere</b>	Dangerous fumes Hazardous substances Harmful atmosphere Unsafe oxygen levels Airborne contaminants Chemical exposure	Death Serious injury Illness or disease Long term health issues	E	<ul style="list-style-type: none"> <li>• Ensure there are no unsafe levels of atmospheric contaminants</li> <li>• Maintain oxygen at safe levels</li> <li>• Do not use cleaning solvents in poorly ventilated areas.</li> <li>• The concentration of flammable contaminant in the atmosphere is below 5% of its LEL.</li> <li>• The atmospheric contaminants are reduced to below the relevant exposure standards</li> <li>• Where the oxygen level is below 21% or atmospheric contaminants cannot be reduced below relevant exposure levels, entry may only occur with suitable PPE including supplied air.</li> <li>• Entry shall not occur when flammable contaminants are greater than or</li> </ul>	Supervisor, Competent person, and workers	M

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				<p>equal to 5% LEL or where oxygen exceeds 23.5%.</p> <ul style="list-style-type: none"> <li>Where a concentration of flammable contaminant is found to be more than 5% and less than 10% of its LEL, all persons must leave the confined space unless a continuous monitoring, suitably calibrated flammable contaminant detector is always used in the confined space while persons are present in it.</li> <li>Where a concentration of flammable contaminant in the atmosphere of a confined space is found to be 10% of its LEL or more, all persons must leave the work area.</li> <li>Identification of equipment to be worked on and any other equipment that may be affected.</li> <li>Energy isolation of the equipment, such as depressurisation and disconnection</li> <li>Removal of hazardous substances in the immediate work area that may be impacted by the work</li> <li>Preparation of piping such as sewers, drain that may have the presence of hazardous or flammable substances</li> <li>Provision of appropriate rescue or fire-protection equipment where required,</li> <li>Atmospheric testing of the work environment for the flammable or hazardous vapours and oxygen content.</li> <li>If work stops for a period of more than one hour a new gas test will be required.</li> </ul>		

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<b>Flammable Atmosphere</b>	Dangerous fumes Hazardous substances Harmful atmosphere Engulfment	Death Serious injury Burns	E	<ul style="list-style-type: none"> <li>• Ensure there are no unsafe levels of atmospheric contaminants</li> <li>• Ensure the concentration of flammable contaminant in the atmosphere is below 5% of its LEL and the atmospheric contaminants are reduced to below the relevant exposure standards.</li> <li>• Where the oxygen level is below 21% or atmospheric contaminants cannot be reduced below relevant exposure levels, entry may only occur with suitable PPE including supplied air.</li> <li>• Entry shall not occur when flammable contaminants are greater than or equal to 5% LEL or where oxygen exceeds 23.5%.</li> <li>• Where a concentration of flammable contaminant is found to be more than 5% and less than 10% of its LEL, all persons must leave the confined space unless a continuous monitoring, suitably calibrated flammable contaminant detector is used in the confined space at all times while persons are present in it.</li> <li>• Where a concentration of flammable contaminant in the atmosphere of a confined space is found to be 10% of its LEL or more, all persons must leave the work area.</li> <li>• Identification of equipment to be worked on and any other equipment that may be affected</li> <li>• Energy isolation of the equipment, such as depressurisation and disconnection</li> </ul>	Supervisor, Competent person, and workers	M

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				<ul style="list-style-type: none"> <li>Removal of hazardous substances in the immediate work area that may be impacted by the work.</li> <li>Preparation of piping such as sewers, drain that may have the presence of hazardous or flammable substances.</li> <li>Provision of appropriate rescue or fire-protection equipment.</li> <li>Where required, atmospheric testing of the work environment for the flammable or hazardous vapours and oxygen content.</li> <li>If work stops for a period of more than one hour a new gas test will be required.</li> </ul>		
<b>Trench Work</b>	Trench collapsing	Risk of workers being buried or crushed causing death or injury. Risk of engulfment by gas or liquids.	E	<ul style="list-style-type: none"> <li>Dial before you dig</li> <li>If work is to be performed the</li> <li>SWMS1414 Excavating work deeper than 1.5m is required.</li> <li>SCC Permits to work are in place.</li> </ul>	Supervisor, Competent person and workers	M
<b>Completion of work</b>	Energy services/ stored energy Confined space Traffic Management Plant and equipment	Death Serious injury	H	<ul style="list-style-type: none"> <li>Competent person completes de-isolation of services</li> <li>Worker safely exits the confined space</li> <li>All equipment is removed from the confined space</li> <li>Standby person maintains visual and communication</li> <li>Ensure gas monitoring continues throughout the exit process</li> <li>Close manhole lid or openings as soon as possible</li> </ul>	Supervisor, Competent person and workers	L

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	Storage of safety equipment Lack of communication			<ul style="list-style-type: none"> <li>• Spotters and traffic control to be used for plant and equipment to exit the site</li> <li>• Complete SCC Permit to work and return to Supervisor (if applicable)</li> <li>• Open trenches have been covered and/or barricaded</li> <li>• Advise stake holders of work site status</li> <li>• Appropriately dispose of any rubbish or unwanted materials</li> <li>• Ensure safety equipment is stored in clean and protected bag or other secure location</li> <li>• Any faulty equipment is tagged out of service and reported</li> <li>• Any hazardous materials are contained and disposed of correctly</li> </ul>		

<b>LIKELIHOOD</b> How likely is it to happen? ↓	<b>E=EXTREME H=HIGH M=MEDIUM L=LOW</b>				
	← CONSEQUENCES – How severely could it affect health and safety? →				
	<b>CATASTROPHIC</b> Kill or cause Permanent Disability	<b>MAJOR</b> Serious Illness or Injury	<b>MODERATE</b> Medical Attention, Time off Work	<b>MINOR</b> First Aid Required	<b>INSIGNIFICANT</b> No Injuries
<b>ALMOST CERTAIN</b> Is expected to occur	E	E	H	H	M
<b>LIKELY</b> Will probably occur	E	H	H	M	M
<b>POSSIBLE</b> Might occur	H	H	H	M	L
<b>UNLIKELY</b> Could occur	H	M	M	L	L
<b>RARE</b> May occur only in exceptional circumstances	H	M	M	L	L

Risk Level	Required Action
Extreme	<b>Act immediately:</b> The proposed task or process activity must not proceed. Steps must be taken to lower the risk level to as low as reasonably practicable using the hierarchy of controls.
High	<b>Act today:</b> The proposed activity can only proceed, provided that: The risk level has been reduced to as low as reasonably practicable using the hierarchy of controls. The risk controls must include those identified in legislation, Australian Standards, Codes of Practice etc. and The document has been reviewed and approved by the supervisor and A Safe Working Procedure or Safe Work Method has been prepared and The supervisor must review and document the effectiveness of the implemented risk controls
Medium	<b>Act this week:</b> The proposed task or process can proceed, provided that (i) The risk level has been reduced to as low as reasonably practicable using the hierarchy of controls and The document has been reviewed and approved by the supervisor and A Safe Working Procedure or Safe Work Method has been prepared.
Low	<b>Act this month:</b> Managed by local documented routine procedures which must include application of the hierarchy of controls.



**Acknowledgement register**

All workers are to sign this register to indicate they have read and understood this document prior to commencing work.

Name	Signature	Date	Name	Signature	Date