SAFE WORK METHOD STATEMENT

SAFETY Everyone, Everywhere, Every day

RESTRICTED WORK AREA

DOC ID	SWMS47	**VERSION**	4	**DOC OWNER**	David Cowan
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INTRODUCTION

This Safe Work Method Statement details how specific risks associated with working in and/or around a Restricted Work Area are to be managed.
It outlines the common risks and dangers associated with this work and how to best control them based on the Hierarchy of Controls.
The control measures listed in this SWMS must be implemented on site.
If other hazards are identified that are not identified in this SWMS a risk assessment for the new hazard must be completed on the WRAP.

CONSULTATION AND REVIEW OF SAFE WORK METHOD STATEMENT (SWMS)

This SWMS has been developed in consultation with Subject Matter Experts. Reviews will be conducted every two years or if an incident occurs or if there is a change in operational practices and if there is a change in legislation. It will also be reviewed in conjunction with any review of associated procedures and/or training programs. Effectiveness of control measures will be monitored by on site supervisors

REFERENCE DOCUMENTS - OCCUPATIONS/HIGH RISK WORK

Relevant Work Health & Safety/Environmental Legislation	References
QLD Work Health & Safety Act 2011	AS/NZS 4360 – Risk Management
QLD Work Health & Safety Regulations 2011	Soil Erosion and Sedimentation Control Procedure
Managing Risks of Plant in the Workplace Code of Practice	Plant Inspection Checklists - FOR290
How to Manage Work Health and Safety Risks Code of Practice	Safe Work Method Statement – Overhead Powerlines
Hazardous Manual Tasks Code of Practice	Safe Work Method Statement – Excavation and Trenching
Environmental Protection Act	
	Procedure – Plant Risk Assessment (PRO128)

The following occupations and high risk work tasks are undertaken in this activity:

Occupation Work Health & Safety Regulations 2011	**Class of High Risk Work** Work Health & Safety Regulations 2011
N/A	N/A

HAZARD ANALYSIS AND CONTROL MEASURES

Task/Activity	Hazard/Risk	Inherent Risk Rating	Control Measures	Residual Risk Rating	Hierarchy of Controls	PICOW Initials
1.Job Pre-planning	1.Hazard: Inadequate planning Risk: Unsafe work site	E	1. **Conduct a risk assessment to confirm that the work area is not a confined space for the activity that is about to be undertaken**.	L	Admin	
			2. If the work requires isolation or inhibition of any upstream pump stations, check if a flow control plan is required. 3.		Admin	
2.Entry, checks from surface into Restricted Work Area.	1.Hazard: Heights, adjacent to traffic. Risk: Slips, trips, falls, bites, hit by car.	H	1. Ensure that a mobile phone or two-way radio to receive or make emergency calls is available on site.	L	PPE	
			2. Before entry, check the Restricted Work Area rescue winch cable. Wind the cable out and wind it back in under continuous tension to ensure no bird nesting has occurred in the cable. **Note**: Gloves that provide mechanical protection must be worn to protect hands from any broken cable strands.		PPE	

Task/Activity	Hazard/Risk	Inherent Risk Rating	Control Measures	Residual Risk Rating	Hierarchy of Controls	PICOW Initials
3.Evaluate atmosphere	1.Hazard: Harmful atmosphere introduced , oxygen enriched atmosphere. Risk: Fire or explosion, suffocation due to oxygen deficiency, poisoning (e.g. by hydrogen sulphide and/or carbon monoxide).	E	1. No person shall enter any Restricted Work Area before gas detection procedures have been conducted.	L	Admin	
			2. Securely attach the gas detector to a rope and lower/place into the Restricted Work Area. Test the atmosphere at multiple levels and ensure the detector goes to the farthest point of the Restricted Work Area.		Engineering	
			3. **Do not enter the Restricted Work Area until the gas detector indicates safe gas concentrations**. Do not enter the space until the source of the harmful atmosphere is identified. Conduct a risk assessment including the identified source of the harmful atmosphere to identify if the space is now a Confined Space. SWMS2 Confined Space Entry will now be followed. Ventilate and/or hose down the Space and then re-test the atmosphere. Oxygen enriched air (greater than 21% oxygen) shall never be used to ventilate a space.		Admin	
			4. Place the gas detector back into the Restricted Work Area for continuous monitoring.		PPE	
			5. Position the gas detector as close as is practicable to the breathing zone of the worker in the Restricted Work Area for the duration of the entry.		PPE	
4.Entering the restricted work area	1.Hazard: Heights, vermin, snakes, Risk: Falling, struck by, bites.	E	1. Using a torch and/or mirror visually check the condition of ladders, step irons etc.	M	Admin	
			Single Person Entry: 2. Where a fall hazard does exist the person entering a Restricted Work Area must be connected to the winch cable or to an approved fall arrest device, by the safety harness. The operator remains attached to the cable at all times where practicable. A second safety rescue rope should be available to enable a rescue while the rescue winch is in use.		PPE	

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			3. Ensure that the rescue winch remains in 'fall arrest mode' from the time the worker is entering the Restricted Work Area and for the duration of the entry and exit. **Note:** Winch only to be used in 'rescue' mode when a worker requires rescue or assistance in evacuating the Restricted Work Area.		PPE	
			Multiple person entry: **4.** Once the first person reaches the bottom of the pit, they must ensure the operator has the rescue winch in winch mode before disconnecting the hook from their safety harness. The rescue winch operator raises the hook for the second person. The winch operator must prevent bird nesting in the cable by monitoring the tension on the cable. **Note:** Gloves must be worn to protect hands from potentially broken strands of cable. **CAUTION:** Under no circumstances should the person at the bottom of the pit disconnect the D-hook from the harness and let it go until the winch operator gives instruction to do so, as this may cause injury to the winch operator on ground level.		PPE	

Task/Activity	Hazard/Risk	Inherent Risk Rating	Control Measures	Residual Risk Rating	Hierarchy of Controls	PICOW Initials
5.Working in the restricted work area	1.Hazard: Failure to identify the task's potential to cause a harmful atmosphere in the Restricted Work Area. trip hazards. Risks: Fire or explosion, suffocation due to oxygen deficiency, poisoning (e.g. by hydrogen sulphide and/or carbon monoxide). Slips, trips, falls.	E	1. Monitor the operation of the gas detector at all times. 2. If the gas detector alarm sounds immediately implement emergency procedures. (See below).	M	PPE Admin	

Task/Activity	Hazard/Risk	Inherent Risk Rating	Control Measures	Residual Risk Rating	Hierarchy of Controls	PICOW Initials
6.Raising and lowering of tools, equipment, buckets of material etc.	1.Hazard: Manual handling, falling objects. Risk: Muscular injury, impact.	E	1. When raising or lowering tools, equipment, buckets of material, etc. use only approved buckets suitable for lifting and connecting to a working line. (If the item cannot be safely carried in a bucket, it is to be securely tied to a working line. **Do not** use rescue lifelines for this purpose) **CAUTION**: • Do not stand directly below objects being raised or lowered.	L	PPE	
7.Hot work in Restricted Work Area.	1.Hazard: Source of ignition, harmful atmosphere/fumes Risk: Fire. Poisoning, suffocation.	E	1. Complete a Hot Work Permit whenever any of the following activities are to be conducted in a restricted work area. Cutting, grinding or any other spark or heat producing work (e.g. Electrical equipment). Work is not to commence unless forced mechanical ventilation is in place. **CAUTION:** Do not use the oxygen or compressed air when working in a restricted work area, as this will increase the risk of explosion.	M	Admin	
			Grinding/Cutting 2. When grinding, ensure person/s working within the restricted work area is/are using the correct PPE (including minimum Class P2 disposable respirator).		PPE	
			Electrical arc welding 3. Electrical connection to electrodes (including a fully insulated electrode holder), work return (earth lead) and equipment should be fully insulated and must be thoroughly checked.		Engineering	
			4. A safety switch shall be used and held by the Standby Person for the duration of the task.		Engineering	
			5. The second team member shall isolate the circuit using the welding circuit safety switch before and after each welding work and in electrode change-over.		Engineering	
			6. Insulating materials, e.g. rubber mats, shall be used to isolate welder from wet or metallic surfaces.		Engineering	

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			7. Oxy-acetylene work Gas cylinders MUST be kept outside of Restricted Work Area.		Engineering	
			8. Torches and pressure hosing connected to the supply shall not be left inside the working area when not in use. (Very slow leaks of oxygen or fuel gas can allow an explosive atmosphere to build up rapidly.)		Engineering	
8.Electrical equipment.	1.Hazard: Electricity. Risk: Electrocution.	E	1. Only air driven or battery operated equipment should be used in restricted work area.	M	Engineering	
			2. Avoid the use of electrical equipment in restricted work areas wherever possible but where portable electrical equipment is the only option, the equipment is to be connected to an earth free (double insulated), low voltage supply from an isolating transformer located outside the Restricted Work Area or be protected through a residual current device (RCD) with the device being located outside the restricted work area.		Engineering	
9.Combustion engines.	1.Hazard: Fumes. Risk: Poisoning, asphyxiation.	E	1. Do not position combustion engine equipment i.e. compressor, generator, truck, car, where exhaust fumes can be drawn into the Restricted Work Area. **CAUTION:** Never take Combustion engines, for example generators, pumps, etc into a Restricted Work Area.	L	Engineering	
10.Air driven Equipment.	1.Hazard: Moving parts. Risk: Lacerations, amputations, breaks.	H	1. All air driven equipment and hoses (i.e. air saw, CP Hammer, jack hammer, etc) shall have safety pins fitted to couplings at both connection points to the air line to prevent separation.	L	Isolation	

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11.Completion of work inside restricted work area.	Risks: Slips, trips, falls.	H	1. For workers attached to a rescue winch, worker(s) call to winch operator advising them they are ready to leave. Alternatively, workers are to attach to an approved fall arrest device and exit.	L	PPE	
			2. Ensure tripod winch is in fall arrest mode and no control of cable is required.		PPE	
			3. When at ground level, the worker: o Must step clear of the Restricted Work Area opening. o Is released from the hoist cable.		Admin	
			Multiple Persons 4. When the first person reaches the surface, they disconnect the hook from their safety harness.		PPE	
			5. The winch operator lowers the hook to the second person by gripping the cable with two hands and lowering the hook. **CAUTION:** a) The winch operator should not let go of the cable until the person at the bottom of the pit has clearly told him that he has connected the hook to his safety harness. **b)** Restricted Work Area must be checked to ensure that all personnel, equipment and materials have been removed.		Admin	
			6. Remove the gas detector from the Restricted Work Area.		Admin	
			7. Re-check all equipment to make sure it was not damaged during the task.		Admin	

Emergency Procedures

THE EMERGENCY RESCUE PLAN FOR EACH JOB MUST BE DISCUSSED, COMPLETED AND UNDERSTOOD PRIOR TO ENTRY OF THE RESTRICTED WORK AREA.

NOTE:
If an emergency situation arises, the safety of the persons in the restricted work area is the highest priority regardless of the task being performed or the equipment being used.

All workers are to EXIT the restricted work area immediately, if any of the following situations occur:

- An alarm is indicated by the gas detector.
- Any worker experiences any of the following symptoms:
  - Headache.
  - Nausea.
  - Burning sensation in the eyes or throat.
  - Dizziness or any other symptoms that could indicate the presence of hazardous gases or chemicals in the Restricted Work Area.
- The water level inside the Restricted Work Area rises rapidly, e.g. pipe/valve failure.

Any other hazard that arises during the entry of a Restricted Work Area where there may be a risk to the safety of the worker(s) in the Restricted Work Area.

1. In the event of a person collapsing or suffering an injury inside the restricted work area, the emergency procedures are as follows:

Contact the relevant Supervisor as soon as possible.

a) NO RESCUER SHALL ENTER A RESTRICTED WORK AREA TO ATTEMPT A RESCUE, WHERE THERE IS ANY RISK TO THE SAFETY OF THE RESCUER.
b. The second team member at the entry alerts other team members at the site of the incident report the incident to Emergency Services.

Note: When speaking to the Emergency Services, state the Employee's name, incident location, type of rescue required and address. Instructions from Emergency Services MUST be followed.

2. Rescuing the injured employee without rescuer entering a restricted work area:

a. The winch operator winches the injured employee to the surface using the retrieval winch.

Note: Care should be taken not to unnecessarily further injure the worker during ascent by using excessive force. (the person could get be caught on an obstacle).

3. Rescuing the injured employee with rescuer entering a restricted work area.

Examples of this situation include:

- Worker injured while detached from winch cable (and no gas detector alarm).
- Worker caught on obstacle when being winched to safety (and no gas detector alarm).

The Standby Person must raise the gas detector to the surface and check for any alarm indication.

a) If an alarm is activated only a Rescuer using breathing apparatus should enter the restricted work area to facilitate the rescue.
b) The BA usage board must be filled in by the Standby Person prior to the rescuer entering the Restricted Work Area.
c) If no alarm is activated, lower the gas detector back into the restricted work area.
d) The rescuer may descend the ladder and release the injured person from the obstacle or attach the winch cable to the person. The rescuer will then ascend the ladder and then winch the injured person to the surface.
e) When the injured employee is brought to the surface, the employee should be moved away from the access opening and placed in a safe area clear of the opening. (This is done by firmly grasping their safety harness whilst still attached to the winch cable before releasing the employee from the harness attachment.)
f) The medical condition of the collapsed or injured employee should be assessed by a qualified person and if necessary, CPR and/or First Aid should be administered as deemed necessary.

END OF SAFE WORK METHOD STATEMENT