Gas Welding and Cutting | SAFE WORK METHOD STATEMENT (SWMS)

TASK OR ACTIVITY: Gas Welding and Cutting

Business Name:		ABN:	SWMS#
Business Address:			
Contact Person:	Phone:	Email:	

THIS SAFE WORK METHOD STATEMENT IS APPROVED BY THE PCBU OF THE PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a safe work method statement (SWMS) is prepared before the proposed work starts.

Full Name:		
Signature:	Title:	Date:

Details of the person(s) responsible for ensuring implementation, monitoring and compliance of the SWMS as well as reviews and modifications of the SWMS.

Full Name:	Title:	Phone:

ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS SWMS MUST HAVE THE FOLLOWING COMMUNICATED	NAME OF ALL RELEVANT PERSONNEL WHO HAVE BEEN CONSULTED AND COMMUNICATED TO IN THE DEVELOPMENT AND APPROVAL OF THIS SWMS
Safety meetings or toolbox talks will be scheduled in accordance with legislative requirements to first identify any site hazards, communicate those hazards and then to further take steps to either eliminate or control each hazard.	
If an incident or a near miss occurs, all work must stop immediately. Depending on the severity of the incident, a meeting will be called with all workers to amend the SWMS if required. The meeting may also be an educational opportunity.	
Any changes made to the SWMS after an incident or a near miss must be approved by the Person Conducting Business or Undertaking and communicated to all relevant personnel.	
The SWMS must be kept and be available for inspection at least until the work is completed. Where a SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to which the SWMS relates, then the SWMS must be kept for at least two years from the occurrence of the notifiable incident.	

CLIENT OR PRINCIPAL CONTRACTOR DETAILS	
Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date SWMS supplied to Project Manager:	

ANY HIGH-RISK CONSTRUCTION WORK BEING CARRIED OUT	
☐ involves a risk of a person falling more than 2 meters	☐ is carried out on or near pressurised gas mains or piping
☐ is carried out on a telecommunication tower	☐ is carried out on or near chemical, fuel or refrigerant lines
☐ involves demolition of an element of a structure that is load-bearing	☐ is carried out on or near energised electrical installations or services
☐ involves demolition of an element related to the physical integrity of a structure	☐ is carried out in an area that may have a contaminated or flammable atmosphere
☐ involves, or is likely to involve, disturbing asbestos	☐ involves tilt-up or precast concrete
☐ involves structural alteration or repair that requires temporary support to prevent collapse	☐ is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor
☐ is carried out in or near a confined space	☐ is carried out in an area of a workplace where there is any movement of powered mobile plant
☐ is carried out in/near a shaft or trench deeper than or tunnel involving use of explosives	☐ is carried out in areas with artificial extremes of temperature.
☐ is carried out in or near water or other liquid that involves a risk of drowning.	☐ involves diving work.

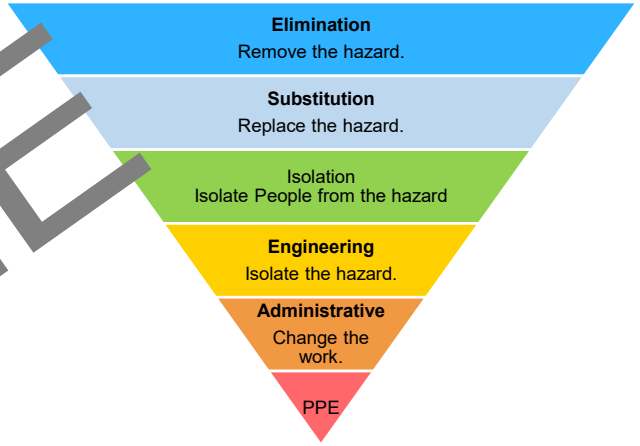
ANY HIGH-RISK MACHINERY OR EQUIPMENT NEARBY

RISK MATRIX

LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEE
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review befo work starts.
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	nitor and k records

Notes on Hierarchy of Controls: Elimination methods are the most effective and preferre en co lli a hazard. Substitution is the second most effective method of controlling a hazard. Engineering by isolation is the ost ef ve, while Administrative Controls by changing the work is the fourth most effective method. PPE (Personal Protective Eq ment) he least effective method.

HEIRARCHY OF CONTROLS



PERS NAL P TECTIVE EQUIPMENT (PPE)

Select the appropriate PPE bov uitable or the equipment used or the job task being performed (if applicable).

FOOT PROTECTION	HAND PROTECTION	HEAD PROTECTION	HEARING TECTION	EY CTION	RESPIRATORY PROTECTION	FACE PROTECTION	HIGH-VIS CLOTHING	PROTECTIVE CLOTHING	FALL PROTECTION	SUN PROTECTION	HAIR/JEWELLERY SECURED
											
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Other PPE Required:

Permit or Licenses Requirements	Mandatory Qualifications and Training

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
1. Preparation	Poor ventilation, Inadequate lighting	2.	- Ensure that a thorough risk assessment has been conducted prior to the commencement of gas welding and cutting activities to identify potential hazards and implement appropriate control measures. - Verify that the appropriate ventilation system is in place and functioning correctly, including using fume extraction devices where necessary, to minimise worker exposure to harmful gases and fumes generated during welding and cutting processes. - Enhance natural ventilation with exhaust fans or portable ventilators to ensure adequate air circulation in the work area, effectively reducing the concentration of harmful gases and contaminants. - Position workstations to face towards main sources of natural or artificial light, ensuring adequate illumination for safe welding and cutting operations. - Install and provide supplemental lighting if necessary, such as portable task lights, floodlights, or light stands to ensure workers have sufficient visibility when performing tasks. - Utilise appropriate personal protective equipment (PPE), including respiratory protection devices like masks or respirators with gas filters, to reduce the risk of inhalation of toxic gases emitted during welding and cutting operations. - Encourage regular breaks for workers operating in poorly ventilated areas, allowing them time to leave the confined workspace and get fresh air. - Conduct routine safety inspections of the work environment, ensuring adequate ventilation and lighting systems are maintained and functioning to their fullest extent. - Provide ongoing workplace health and safety training to employees regarding proper procedures for gas welding and cutting tasks, including best practices for minimising relevant hazards. - Maintain properly labelled emergency exits and evacuation routes, ensuring these paths are easily accessible and clear from obstructions in case an incident occurs during welding or cutting. - Implement heat-stress prevention strategies, such as providing cool drinking water, encouraging hydration breaks, and offering cooling stations or shaded rest areas, for individuals working in hot or poorly ventilated environments. - Regularly monitor air quality to gauge the effectiveness of implemented ventilation control measures and make adjustments as needed to maintain optimal working conditions. - Establish a comprehensive and organised housekeeping plan to minimise clutter, discarded materials, and potential ignition sources, in turn reducing the risk of fires or other incidents related to inadequate lighting or ventilation. - Review the SWMS periodically and after any significant changes in the work environment or processes to ensure the implemented control measures remain effective in mitigating hazards tied to poor ventilation and inadequate lighting during gas welding and cutting operations.	1L
2. Equipment Inspection	Damaged hoses, Faulty regulators	3H	- Implement regular inspection of all equipment, including hoses, regulators, and attachments, to ensure they are in good working condition and free from damage.	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			- Train the workers to recognise visual signs of wear and tear on hoses and regulators, such as cracks, bulges, or leaks. - Ensure that any damaged equipment is immediately tagged and removed from service until repairs or replacements can be made. - Develop and enforce a maintenance schedule for all gas welding and cutting equipment to preemptively address potential issues or any deterioration caused by extended use. - Store hoses in a secure manner to prevent any accidental damage, kinks, or exposure to extreme temperatures and chemicals. - Regularly check hose connections and fittings for tightness, corrosion, and any other defects, replacing them as necessary. - Equip workers with appropriate personal protective equipment (PPE), including gloves, safety glasses or face shields, and fire-resistant clothing to protect them from hazards associated with damaged hoses and faulty regulators. - Adopt industry best practices to ensure compatibility between regulators and their corresponding cylinders, thus minimising the risk of malfunctions due to mismatches. - Establish an emergency Response Plan (ERP) to outline clear procedures for reporting and addressing incidents involving damaged hoses and faulty regulators during gas welding and cutting operations. - Provide periodic training sessions for all employees on emergency response protocols, specifically highlighting the importance of staying vigilant and taking immediate action upon the identification of a hazard. - Establish guidelines to limit the use of gas welding and cutting in designated areas, where the risk of fires, explosions, and other hazards can be more easily managed and mitigated. - Foster open communication between workers in order to encourage the prompt reporting of any damaged hoses, faulty regulators, or other observed hazards. - Conduct regular audits and reviews of workplace health and safety policies, procedures, and equipment conditions to ensure ongoing compliance with Australian regulations and industry best practices.	
3. Personal Protective Equipment (PPE)	Inadequate PPE, Incorrect sizing	2M	- Conduct a thorough PPE assessment: Before starting any welding or cutting tasks, identify the specific hazards present and determine the type of PPE required to protect workers from these hazards effectively. - Provide appropriate PPE training: Educate all employees involved in gas welding and cutting tasks about the correct use, maintenance, and storage of their PPE to ensure maximum safety while performing their duties. - Inspect PPE regularly: Develop a system for inspecting all PPE periodically, checking for damage, wear, and tear. Replace any worn-out or damaged equipment immediately to maintain the highest level of protection. - Ensure correct sizing and fit of PPE: Properly size and fit each worker's personal protective equipment, including gloves, goggles, face shields, aprons, and safety boots to prevent exposure to hazards due to inadequate or ill-fitting equipment.	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			- Supply separate work clothing: Provide flame-resistant work clothes specifically designed for welding tasks to minimise the risk of burns due to stray sparks, molten metal splashes, or contact with hot surfaces. - Implement proper ventilation and fire preventio easures: Ensure the workspace has adequate ventilation, and all potentially flammable mat ls are stored away from welding and cutting areas to reduce the chance of heat-related injuries. - Utilise safe practices for handling fuel gases. t welders on proper procedures for handling fuel gases and cylinders, such as ensuring that hose re free of ki , leaks, and using flashback arresters to prevent backflow incidents. - Use appropriate eye and face p tection: Provide w rs with appropriate safety goggles, welding helmets, and face ields shield em from harmful ultraviolet rays, infrared radiation, and flying particulates d g the gas lding a cutting ocess. - Encourage f ent brea Encourag orkers to take regular breaks to help minimise discomfort, fatigu nd mu s str associated with wearing heavy PPE for extended periods. - Imple a PPE placement and maintenance programme: Establish procedures for repairing or replaci da aged P , and maintaining a stock of spare equipment to ensure that workers always have access the otectiv ear they need while performing gas welding and cutting tasks.	
4. Setting Up Workspace	Trip and fall hazards, Poo housekeeping	2M	[redacted]	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
5. Testing Equipment Connections	Gas leaks, Ineffective flame arres[redacted]s	3H	[redacted]	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
6. Lighting the Torch	Backfire, Flashbac	3H	[redacted]	2M

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
7. Adjusting Gas Pressure	Incorrect pressure settings, Excessive gas usage	3H	[redacted]	2M
8. Proper Welding/Cutting Techniques	Improper joint alignment, Slag inclusions	2M	[redacted]	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
9. Handling of Cylinders	Falls due to poor handling, Damaged cylinder valves	3H	[redacted]	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
10. Monitoring Work Area	Airborne contaminants, Noise exposure	2M	[redacted]	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
11. Storing Equipment & Materials	Unsecured cylinders, Improper storage procedures	2M	[redacted]	1L

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK
			[redacted]	
12. Emergency Procedures	Lack of response plans, Inadequate fi extinguisher access		[redacted]	1L

EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT ARE NOT APPLICABLE

Queensland & Australian Capital Territory
Work Health and Safety Act 2011
Work Health and Safety Regulations 2011
Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws
Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice
Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/acts-and-regulations
Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice

New South Wales
Work Health and Safety Act 2011
Work Health and Safety Regulations 2017
Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislation
Codes of Practice NSW: https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-practice

Northern Territory
Work Health and Safety (National Uniform Legislation) Act 2011
Work Health and Safety (National Uniform Legislation) Regulations 2011
Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-safety-laws
Codes of Practice NT: https://worksafe.nt.gov.au/forms-and-resources/codes-of-practice

South Australia
Work Health and Safety Act 2012 (SA)
Work Health and Safety Regulations 2012 (SA)
Legislation for SA: https://www.safework.sa.gov.au/resources/legislation
Codes of Practice for SA: https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs

Tasmania
Work Health and Safety Act 2012
Work Health and Safety (Transitional and Consequential Provisions) Act 2012
Work Health and Safety Regulations 2012
Work Health and Safety (Transitional) Regulations 2012
Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/acts-and-regulations
Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence work
- Any required documents.

Victoria
Occupational Health and Safety Act 2004
Occupational Health and Safety Regulations 2017
Legislation VIC: https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations
Codes of Practice VIC: https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice

Western Australia
Work Health and Safety Act 2020
Work Health and Safety Regulations 2022
Legislation Western Australia: https://www.commerce.wa.gov.au/worksafe/legislation
Codes of Practice WA: https://www.commerce.wa.gov.au/worksafe/codes-practice

Safe Work Australia Links
Law and Regulation (All States): https://www.safeworkaustralia.gov.au/law-and-regulation
Model Codes of Practice: https://www.safeworkaustralia.gov.au/resources-publications/model-codes-of-practice

Model Codes of Practice

- Managing noise and preventing hearing loss at work
- Confined spaces
- Labelling of workplace hazardous chemicals
- Managing risks of hazardous chemicals in the workplace
- Welding processes
- First aid in the workplace
- Managing the risk of falls at workplaces
- Hazardous manual tasks
- Managing the risk of falls in housing construction
- Managing electrical risks in the workplace
- Demolition work
- Excavation work
- Work health and safety consultation, cooperation and coordination
- Managing the work environment and facilities
- How to manage work health and safety risks
- Managing risks of plant in the workplace
- Construction work

SIGNATORIES OF THE SAFE WORK METHOD STATEMENT

The signed and dated personnel listed below have cooperated in the consultation and development of this Safe Work Method Statement which has been approved by the Person/s Conducting a Business or Undertaking (PCBU). In signing this Safe Work Method Statement each individual acknowledges and confirms that they have read this SWMS in full, having raised any questions for items on this Safe Work Method Statement that require clarification, and confirms that they are competent, skilled and knowledgeable for the task assigned to them. Every person acknowledges that they have received the relevant training and qualifications where required, before carrying out any work contained in this Safe Work Method Statement. By signing this Safe Work Method Statement each individual agrees to work safely, to follow any safe work instructions which are provided, and agrees to use all Personal Protective Equipment where appropriate.

Worker Name	Signature	Date

SAFE WORK METHOD STATEMENT MONITORING AND REVIEW

The SWMS must be reviewed regularly to make sure it remains effective and must be reviewed (and revised if necessary) if relevant control measures are revised. The review process should be carried out in consultation with workers (including contractors and sub-contractors) who may be affected by the operation of the SWMS and their health and safety representatives who represented that work group at the workplace.

When the SWMS has been revised the PCBU must ensure that all persons involved with the work are advised that a revision has been made and how they can access the revised SWMS, including all persons who will need to change a work procedure or system as a result of the review are advised of the changes in a way that will enable them to implement their duties consistently with the revised SWMS. All workers that will be involved in the work must be provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

The SWMS must be monitored regularly for the effectiveness of ensuring hazard controls are effective in reducing the risk of incidents, keeping the workplace safe for all personnel. The person responsible for monitoring the effectiveness of the Safe Work Method Statement should employ a multi-faceted approach which includes but is not limited to:

1. Spot Checks.
2. Consultation with workers, contractors and sub-contractors.
3. Internal audits on a continual basis.

An approach of continuous improvement, promptly recording inconsistencies or deficiencies, followed up by immediate corrective action and consultation with all relevant personnel ensures that the PCBU is consistently developing ever-improving systems of safe work principles.

REVIEW NUMBER	1	2	3	4	5	6	7
NAME							
INITIALS							
DATE							

SAFE WORK METHOD STATEMENT REVIEW CHECKLIST

This Safe Work Method Statement Review Checklist is to be followed and used upon initial development of the SWMS to help ensure that all steps have been adequately taken before work commences. Think of this document as an internal audit review checklist before commencing work, and may form part of a Toolbox Talk (safety meeting) and may be used as an opportunity for education and training.

ITEMS WHICH MUST BE INCLUDED IN THE SWMS	COMPLETED	COMMENTS
The company details have been entered, including the project name and address.	☒	
All relevant personnel consulted during the development of the SWMS.	☒	
Name, signature, position and date signed of the person approving the SWMS.	☐	
Specific personnel and qualifications, experience is noted in the SWMS.	☒	
Provides a step-by-step process of tasks required to carry out the activity or task.	☒	
Adequate risk assessment of any identified hazards has been completed.	☒	
Foreseeable hazards are identified and documented for each step.	☒	
Any hazards listed in any site risk assessments have been added to the SWMS.	☒	
SWMS initial risk (IR) column as well as residual risk (RR) column completed.	☒	
Check control measures added to the SWMS are the most effective selection.	☒	
Responsible person is assigned and listed on the SWMS for the implementation of control measures.	☒	
Permit or licenses requirements specified, such as Hot Work, Electrical Work, Work at Heights etc.	☒	
SWMS identifies plant and equipment to be used.	☒	
Details of inspection checks required for any equipment listed are noted on the SWMS.	☒	
Describes any mandatory qualifications, experience, training or skills required to perform the work.	☒	
Applicable personal protective equipment is selected on the SWMS.	☒	
Reflects and documents any legislative references and/or Australian Standards.	☒	
Identifies any hazardous substances used with specific control measures in line with any SDS.	☒	

REVIEWED BY		**DATE REVIEWED**	
SIGNATURE		**DATE COMPLETED**	