

Gas Cutting (Plate Cutting Attachments) Risk Assessment

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON THIS PROJECT

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

Full Name:		
Signature:	Title:	Date:

CLIENT OR PRINCIPAL CONTRACTOR DETAILS

Client:	SCOPE OF WORKS
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Date Risk Assessment supplied to Project Manager:	

RISK MATRIX									
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HIERARCHY OF CONTROLS	
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE			Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE			Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE			Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH			Administrative Change	
						1L LOW	Monitor and keep records.	PPE	

Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. Eliminate the hazard or redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or higher-level authorisation is required.
3H	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
1L	Proceed, following standard operating procedures. Monitor and keep records.

Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
Catastrophic	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
Major	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
Moderate	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
Minor	First-aid only, no lost time	negligible delay	Isolated non-conformance
Insignificant	No injury	no schedule impact	Deviation caught and corrected on site

Notes on Hierarchy of Controls:

Remember to apply controls in the preferred order shown by the coloured pyramid:

- Eliminate
- Substitute
- Isolate
- Engineering
- Administrative
- PPE

Always document **why** a lower-order control is accepted if elimination or substitution is not reasonably practicable.

aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.

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	Inadequate training, Improper PPE usage	3H	<ul style="list-style-type: none"> - Ensure all operators are trained in the safe use of cutting equipment and procedures - Conduct a pre-start checklist of all equipment - Verify all workers are aware of emergency procedures - Supply and mandate the use of appropriate PPE including flame-retardant clothing, gloves, and eye protection - Display safety signage clearly around the work site - Arrange for a safety briefing before commencing work - Maintain a tidy work area to prevent trips or obstructions - Regular inspections of PPE for any signs of wear or damage - Ensure that only authorised personnel are within the work area - Review and update SOPs regularly 	2M
2. Equipment Setup	Gas leakage, Equipment failure	3H	<ul style="list-style-type: none"> - Perform regular maintenance checks on all equipment - Confirm gas cylinders are secured upright and in good condition - Conduct leak tests on all connections prior to starting - Use equipment in accordance with manufacturer's instructions - Only use equipment that has been tested and tagged as safe - Implement a lock-out/tag-out system for faulty equipment - Provide specialised training for equipment setup - Keep a fire extinguisher within close reach - Inspect hoses and cables for signs of wear - Clearly mark and segregate gas storage areas 	1L
3. Ignition of Torch	Fire/explosion due to leaks, Burn injuries	4A	<ul style="list-style-type: none"> - Use spark igniters instead of matches or lighters - Ensure gas valves are opened slowly to control release - Wear face shields to protect from heat and sparks - Position yourself upwind to prevent inhaling fumes - Assign a fire watch during ignition - Regularly test gas detectors for functionality - Avoid lighting near flammable materials - Replace faulty igniters immediately 	2M

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			<ul style="list-style-type: none"> - Double-check all connections for tightness - Keep flammable solvents/substances stored away 	
4. Positioning Workpiece and Torch	Back strain, Unstable workpiece	2M	<ul style="list-style-type: none"> - Use proper lifting techniques - Secure workpiece with clamps - Use adjustable workbench height - Take breaks every 30 minutes - Use ergonomic tools - Wear supportive footwear - Maintain clear workspace - Use proper torch handling techniques - Avoid overexertion - Use safety harness if needed - Communicate with team - Use proper body mechanics - Avoid repetitive motions - Use proper stance - Keep feet flat on the floor - Avoid twisting the torso - Use proper reaching techniques - Avoid static stretching - Warm up before work - Stay hydrated - Get adequate rest - Use proper breathing techniques - Avoid holding breath - Use proper posture - Avoid slouching - Keep shoulders relaxed - Avoid hunching over - Use proper neck posture - Avoid looking down for long periods - Use proper eye protection - Avoid eye strain - Take breaks from screen time - Use proper lighting - Avoid glare - Use proper distance from screen - Avoid neck pain - Use proper hand and wrist posture - Avoid repetitive motions - Use proper grip - Avoid excessive force - Use proper force - Avoid static stretching - Warm up before work - Stay hydrated - Get adequate rest - Use proper breathing techniques - Avoid holding breath - Use proper posture - Avoid slouching - Keep shoulders relaxed - Avoid hunching over - Use proper neck posture - Avoid looking down for long periods - Use proper eye protection - Avoid eye strain - Take breaks from screen time - Use proper lighting - Avoid glare - Use proper distance from screen - Avoid neck pain - Use proper hand and wrist posture - Avoid repetitive motions - Use proper grip - Avoid excessive force - Use proper force 	1L
5. Cutting Operation	Fume inhalation, Projectile debris	3H	<ul style="list-style-type: none"> - Use proper cutting techniques - Wear eye protection - Use proper distance from workpiece - Use proper body mechanics - Avoid overexertion - Use safety harness if needed - Communicate with team - Use proper body mechanics - Avoid repetitive motions - Use proper stance - Keep feet flat on the floor - Avoid twisting the torso - Use proper reaching techniques - Avoid static stretching - Warm up before work - Stay hydrated - Get adequate rest - Use proper breathing techniques - Avoid holding breath - Use proper posture - Avoid slouching - Keep shoulders relaxed - Avoid hunching over - Use proper neck posture - Avoid looking down for long periods - Use proper eye protection - Avoid eye strain - Take breaks from screen time - Use proper lighting - Avoid glare - Use proper distance from screen - Avoid neck pain - Use proper hand and wrist posture - Avoid repetitive motions - Use proper grip - Avoid excessive force - Use proper force 	2M
6. Turning Off Equipment	Gas residuals in hoses, Burn hazards from hot equipment	3H	<ul style="list-style-type: none"> - Shut off gas supply - Allow equipment to cool - Use proper shutdown procedures - Wear eye protection - Use proper distance from equipment - Use proper body mechanics - Avoid overexertion - Use safety harness if needed - Communicate with team - Use proper body mechanics - Avoid repetitive motions - Use proper stance - Keep feet flat on the floor - Avoid twisting the torso - Use proper reaching techniques - Avoid static stretching - Warm up before work - Stay hydrated - Get adequate rest - Use proper breathing techniques - Avoid holding breath - Use proper posture - Avoid slouching - Keep shoulders relaxed - Avoid hunching over - Use proper neck posture - Avoid looking down for long periods - Use proper eye protection - Avoid eye strain - Take breaks from screen time - Use proper lighting - Avoid glare - Use proper distance from screen - Avoid neck pain - Use proper hand and wrist posture - Avoid repetitive motions - Use proper grip - Avoid excessive force - Use proper force 	1L

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7. Post-Operation Checklist	Equipment left active, Unreported damage	2M		1L
8. Cleaning Up	Slip and trip hazard, Improper disposal of waste materials	2M		1L
9. Ongoing Monitoring	Complacency over time, Lack of updated procedures	4A		2M

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10. Emergency Response Drill	Panic in emergencies, Inadequate response plans	4A		2M
11. Storage of Gas	Gas cylinder explosion, Untrained handling	4A		1L
12. Transporting Cylinders	Manual handling injuries, Cylinder leaks during transport	3H		2M

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13. Ventilation Maintenance	System failures, Build-up of toxic fumes	4A		2M
14. First Aid Provisions	Inadequate responses to injuries or awareness of health issues	3H		2M
15. Review and Improvement	Unaddressed procedure gaps, Stale risk assessments	4A		1L

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SAMPLE

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 IF 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>

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>

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-codes-of-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>

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/laws-and-compliance/codes-of-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

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.