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

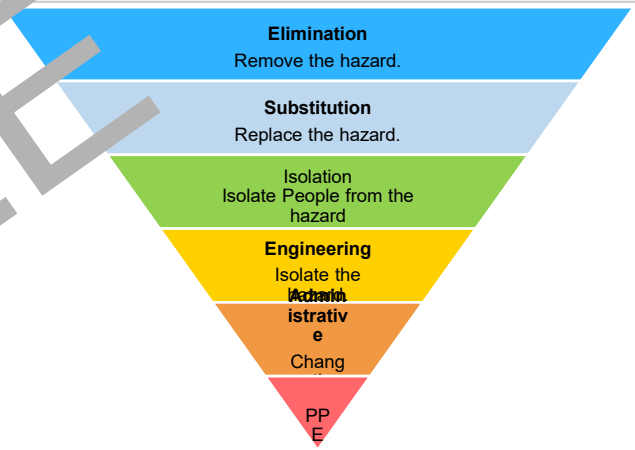
THIS RISK ASSESSMENT IS APPROVED BY THE PCBU OF THE PROJECT		
Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a RISK ASSESSMENT is prepared before the proposed work starts.		
Full Name:		
Signature:	Title:	Date:

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
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 PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Rev before work
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACU	2M MO RATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 H	1L LOW	Monitor and keep records.

HIERARCHY OF CONTROLS



Risk Rating & Required Action:

4A	Stop work. The risk is intolerable. E inate the hazar redesign the activity before proceeding. A Safe Work Method Statement (SWMS) or hi er-level authorisati is required.
3H	Review and approve additional c rols b ask arts. Senior supervisor sign-off needed.
2M	Ensure all nominated controls are in ace and effe ive. 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:

1. **Eliminate**
2. Substitute
3. Isolate
4. Engineering
5. Administrative
6. 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. Governance, WHS Duties and Hot Work Authorisation	• Lack of clear organisational governance over hot work leading to inconsistent risk controls across sites • PCBU and officers not fully aware of due diligence obligations under WHS Act 2011 relating to hot work and fire/explosion risks • Absence of a formal hot work permit system or inconsistent use of permits across operations • Inadequate integration of hot work controls into the WHS management system and risk registers • No clear criteria for when hot work is prohibited or must be relocated to a designated safe area • Inadequate consultation with workers and health and safety representatives (HSRs) on hot work risk controls • Failure to ensure hot work arrangements comply with relevant Australian Standards and codes of practice	High	• Establish a formal hot work governance framework endorsed by the executive, defining roles, responsibilities and accountabilities for PCBUs, officers, managers, supervisors and contractors in line with WHS Act 2011 • Develop and implement a documented hot work policy that clearly states when hot work is permissible, when it must be relocated, and minimum control standards that must be met before work proceeds • Implement a standardised hot work permit-to-work system across all sites, including approval hierarchy, clear scope definition, validity period, isolation confirmation and sign-off requirements • Integrate hot work risk controls and criteria into the organisation's WHS management system, including corporate risk register, site risk registers and emergency management plans • Define and document explosion prohibition zones and circumstances where hot work is not allowed (e.g. active hazardous area classifications, uncontrolled flammable atmospheres, inadequate fire protection) • Ensure officers receive specific due diligence briefings on hot work risks, relevant Australian Standards (e.g. AS 1674 series) and regulator guidance to verify adequacy of resources and systems • Formalise consultation arrangements with workers and HSRs regarding hot work procedures, permit forms, monitoring arrangements and post-incident reviews • Include hot work governance requirements in contractor management frameworks, including prequalification criteria, contract clauses and performance KPIs • Establish a scheduled review cycle (e.g. annually or after any significant incident) for hot work policy and permit systems to ensure currency with legislation, standards and lessons learned • Ensure hot work governance documents reference and align with relevant Safe Work Australia model codes of practice and applicable Australian Standards	Medium
2. Planning, Risk Assessment and Design of Hot Work Activities	• Hot work planned reactively without adequate pre-job risk assessment or design review • Failure to identify nearby combustible materials, flammable atmospheres, process lines or hidden ignition paths during planning • Inadequate consideration of alternative methods (e.g. cold work, prefabrication offsite) that could eliminate or significantly reduce hot work • Risk assessments focused only on task-level hazards rather than system and plant interface risks (e.g. interaction with live process equipment)	High	• Mandate a formal documented risk assessment for all hot work that considers plant layout, adjacent processes, hazardous area classification, ventilation, and fire spread scenarios, not just the immediate task • Embed a requirement in planning procedures to consider and document elimination or substitution options (e.g. cold cutting, bolted connections, offsite fabrication) before approving hot work • Implement a structured hot work planning checklist that must be completed prior to permit issue, including review of drawings, P&IDs and hazardous area classifications where relevant • Require engineering review and sign-off for hot work on or near pressure vessels, pipelines, confined spaces, hazardous areas or major plant to ensure systemic risks are controlled • Integrate hot work planning into the organisation's management of change (MOC) process, ensuring changes to plant, layout or process are assessed for their impact on hot work risks • Establish SIMOPS planning procedures requiring coordination of hot work with other activities, including conflict checks, scheduling controls and communication protocols • Incorporate environmental factors (e.g. wind, temperature, dust load, seasonal bushfire risk) into hot work planning criteria and approvals	Medium

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	• Risk assessments not updated when work scope, environment or plant configuration changes • Poor coordination of simultaneous operations (SIMOPS), resulting in conflicting activities overlapping with hot work (e.g. fuel deliveries, cleaning with solvents) • Insufficient consultation with engineering, production and maintenance teams during hot work planning, leading to missed systemic risks		• Define triggers for re-assessment of risk (e.g. change of shift, change of weather, discovery of additional combustible materials, extension of permit duration) • Ensure hot work risk assessments reference relev guidance material and internal standards, and are stored in a central system for auditing and learni • Provide planning personnel with training i sk assessm t methodologies specific to hot work (e.g. fire and explosion risk profiling, hierarchy of con applic n)	
3. Procurement, Selection and Control of Plant, Equipment and Materials	• Procurement of hot work equipment (e.g. welders, grinders, gas sets) that is unsuitable or non-compliant with relevant standards • Use of damaged, poorly maintained or untested hot work equipment increasi risk of sparks, electrical faults or gas leaks • Inadequate control of fl ble gases, cylinders and els used in hot work processes • Use of inappropri com ables materials that generate excessive sparks, fumes or toxic by-products • Lack of standardisation ment leading to variable safety features and inconsistent maintenance practices • Insufficient verification that hired or contractor-owned equipment meets site and legislative requirements	High	• Imp t proc t standards specifying compliance of hot work equipment with relevant Australian Stand ds nd inte l technical specifications • Stand dis referre equipment types and models for hot work to support consistent maintenance, training nd pa availability • E blis acce nce and verification procedures for all hired or contractor-supplied hot work equipment, includ idence of inspection, testing and compliance efine and implement a plant register for hot work equipment, including asset identification, inspection re ds, test dates and maintenance history Mandate periodic inspection, testing and tagging of electrical hot work equipment in accordance with relevant standards and site procedures • Develop procedures for storage, handling and segregation of fuel gases, cylinders and flammable liquids in accordance with Australian Standards and fire codes • Specify requirements for selection and verification of consumables (e.g. electrodes, discs, rods) to minimise production of hazardous fumes or sparks where practicable • Ensure guarding, flashback arrestors, regulators and other critical safety devices for hot work equipment are specified, procured and maintained as part of standard kits • Include hot work plant and equipment requirements in contractor management documentation and pre-start meetings to ensure alignment across all parties • Periodically audit the field use of hot work equipment against procurement and maintenance standards, and rectify non-conformances through corrective actions	Medium
4. Competency, Training and Authorisation of Personnel	• Workers or contractors conducting hot work without adequate training in fire and explosion risks and control measures	High	[redacted]	Medium

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	• Supervisors and permit issuers lacking competency to assess hot work risks and verify adequate controls • No formal system for authorising personnel for specific hot work roles (e.g. fire watcher, permit issuer, hot worker) • Insufficient understanding of site-specific emergency procedures related to hot work • Training focused only on technical welding or cutting skills, not systemic WHS obligations and permit-to-work processes • Competency not refreshed, with skills and knowledge degrading over time or after long periods without hot work exposure		[redacted]	
5. Hot Work Permit-to-Work and Control Verification Systems	• Permit forms used as paperwork exercise without genuine risk evaluation or control verification • Permits issued by personnel who lack authority or competency, leading to inadequate controls • Failure to clearly define scope, location, duration and limitations of hot work on the permit • Permit system not integrated with lockout-tagout, confined space, work at height or other permit systems, causing gaps or conflicts • Inadequate communication of permit conditions to all affected workers, contractors and supervisors • Permits not cancelled or suspended when conditions change (e.g. weather,	High	[redacted]	Medium

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	plant status, discovery of combustible materials)		[redacted]	
6. Site Infrastructure, Layout and Designated Hot Work Areas	• Lack of designated hot work areas with appropriate fire protection and separation from combustible materials • Workplace layout allowing hot work in close proximity to flammable storage, process lines or occupied buildings • Inadequate fixed fire protection systems, fire detection and alarm coverage in areas whe[redacted]ork is undertaken • No engineered p[redacted]sical barri[redacted] prevent sparks an[redacted]m reaching combustible or flammable materials • Insufficient signage and [redacted]ation to identify hot work zones, restricted areas and exclusion zones • Poor access and egress routes for emergency response personnel and equipment in hot work locations	High	[redacted]	Medium
7. Fire Prevention, Protection and Emergency Preparedness Systems	• Insufficient fire detection and suppression capability in areas where hot work is conducted	High	[redacted]	Medium

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	• Lack of documented, tested emergency response procedures specific to hot work initiated fires or explosions • Inadequate maintenance and inspection of fire protection equipment (extinguishers, hose reels, hydrants, alarms) • Workers unfamiliar with location and operation of fire-fighting equipment and alarm systems • No formal requirement for post-hot work fire watch duration or monitoring of residual heat and smouldering materials • Delayed or ineffective communication with external emergency services during hot work incidents		[redacted]	
8. Isolation, Hazardous Atmosphere and Process Control Systems	• Failure to adequately isolate plant and process systems before hot work, allowing release of flammable or combustible substances • Reliance on single isolation measures without redundancy or verification, increasing risk of inadvertent re-energisation or flow • Inadequate monitoring or testing for flammable, explosive or oxygen-enriched atmospheres where hot work is planned • Poor coordination between operations and maintenance teams regarding process status during hot work • Lack of clear procedures for controlling ignition risks in or near hazardous areas	High	[redacted]	Medium

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	classified under electrical or process standards • Incomplete or inaccurate plant drawings and P&IDs leading to incorrect assumptions about isolation effectiveness		[redacted]	
9. Contractor Management and Interface with Third Parties	• Contractors undertaking hot work under their own procedures that do not align with site standards or WHS Act obligations • Poor communication and coordinatio between contractor and principal PCBU regarding hot work risks and controls • Ambiguity over who is responsible for permit issue, supervision, fire watch and emergency respon e for contra hot work • Inadequate prequalification of contractors regarding hot work competency, equipment and incident history • Limited oversight of subcontractors engaged by primary contractors, resulting in inconsistent safety practices • Contractual arrangements that incentivise speed over safety, leading to shortcuts in hot work controls	High	[redacted]	Medium
10. Monitoring, Assurance, Reporting	• Lack of systematic monitoring and review of hot work activities, leading to	High		Low

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and Continuous Improvement	drift from procedures and normalisation of deviation • Under-reporting of hot work near misses, minor fires and permit breaches, reducing learning opportunities • Inadequate analysis of hot work-related incidents and findings from audits or inspections • No clear performance indicators for hot work risk management effectiveness at site or organisational level • Corrective actions from hot work incidents or audits not tracked to completion, allowing issues to persist • Changes in legislation, standards or industry practice not incorporated into hot work systems in a timely manner		[redacted]	

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 2025
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