

Working in Extreme Temperatures and Hazardous Weather

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			Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.	Administrative Change	
								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:

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. WHS Governance, Policies and Legal Compliance	<ul style="list-style-type: none"> Absence of a formal extreme weather and temperature exposure policy aligned to WHS Act 2011 and WHS Regulations Failure to define duty holder responsibilities (PCBU, officers, workers, contractors) for managing extreme temperature and hazardous weather risks Inadequate integration of temperature and weather-related risks into the organisation's WHS management system and risk registers Lack of documented risk criteria and decision-making thresholds for ceasing or modifying work during harsh weather conditions Poor consultation with workers and Health and Safety Representatives (HSRs) regarding heat, cold and weather-related risks No system for regular review of policies following incidents, legislative changes, or extreme weather events 	4A	<ul style="list-style-type: none"> Develop and implement a standalone 'Extreme Temperatures and Hazardous Weather Management Policy' referencing WHS Act 2011, relevant WHS Regulations and Safe Work Australia guidance Define and document roles and responsibilities for officers, managers, supervisors, HSRs and workers in managing harsh weather and temperature-related risks Embed extreme temperature and hazardous weather risks into the corporate WHS risk register with assigned risk owners and review schedules Establish clear governance processes for approving, reviewing and communicating changes to weather and temperature-related procedures Implement structured consultation processes (toolbox talks, HSC meetings, risk workshops) focusing on outdoor work in hot, cold and rapidly changing weather conditions Schedule formal policy reviews (at least annually or post-incident) and after significant weather events to capture lessons learned and update controls 	2M
2. Extreme Weather and Temperature Risk Management Framework	<ul style="list-style-type: none"> Lack of a systematic risk assessment process for hot, cold and unpredictable weather conditions across different sites and tasks Inconsistent consideration of weather and temperature risks across projects, shifts and locations Failure to identify combined or compounding risks (e.g. heat plus high humidity, cold plus wind chill, UV plus reflective surfaces) No standardised triggers for escalating risk controls or stopping work in severe conditions Inadequate documentation of risk assessment outcomes, leading to ad-hoc decisions by supervisors 	4A	<ul style="list-style-type: none"> Implement a formal risk management procedure specifically addressing extreme heat, cold, storms, high winds, lightning and poor air quality Use standardised heat and cold risk assessment tools (e.g. WBGT indices, chill factor charts) integrated into pre-start planning for outdoor work Define tiered risk levels (e.g. low, moderate, high, extreme) with corresponding mandatory controls and decision rules for continuing, modifying or ceasing work Require documented weather and temperature risk assessments for all outdoor tasks, including review when conditions change during the shift Integrate extreme weather risk assessment into project start-up, safe system of work development and change management processes Audit the quality and consistency of weather-related risk assessments as part of WHS assurance activities 	2M

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	<ul style="list-style-type: none"> Over-reliance on worker self-assessment without structured organisational controls 			
3. Weather Monitoring, Forecasting and Early Warning Systems	<ul style="list-style-type: none"> Failure to review weather forecasts prior to work commencing or for the full duration of the shift Reliance on informal or outdated weather information rather than authoritative sources No process to continuously monitor real-time weather changes (heat spikes, storms, high winds, lightning, sudden cold fronts) Lack of automated alerts for severe weather warnings from the Bureau of Meteorology (BoM) Inadequate communication of changing weather risk levels to dispersed or remote work crews Failure to consider site-specific microclimates (valleys, coastal areas, urban heat islands) in weather planning 	4A	<ul style="list-style-type: none"> Mandate pre-start review of official BoM forecasts (and relevant state emergency service warnings) for all outdoor work locations Implement a centralised weather monitoring system or app that provides real-time data and alerts to supervisors and key workers Establish procedures for continuous weather monitoring throughout the shift, with designated persons responsible for checking and recording updates Configure automated SMS/app/email alerts for BoM severe weather warnings for relevant regions Develop localised weather monitoring processes (onsite thermometers, wind gauges, WBGT meters) for critical locations Include weather review and decision-making as a formal agenda item at pre-start and toolbox meetings 	2M
4. Work Planning, Scheduling and Exposure Management	<ul style="list-style-type: none"> Scheduling high-exposure outdoor work during peak heat or cold periods without considering environmental conditions Inflexible work schedules that do not allow for adjustments during heatwaves, cold snaps or storms Extended exposure durations without structured rest or warm-up/cool-down breaks Insufficient planning for shade, shelter and temperature-controlled environments near work areas Lack of planning for alternative tasks when weather conditions deteriorate Failure to account for acclimatisation requirements for new or returning workers in extreme temperatures 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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5. Engineering Controls: Shelter, Plant and Environmental Modifications	<ul style="list-style-type: none"> Inadequate physical protection from sun, wind, rain, lightning or cold at outdoor workplaces Lack of fixed or temporary shade structures in high UV and heat environments Insufficient wind breaks or barriers for cold and windy locations Use of plant and equipment with enclosed cabins lacking effective heating, cooling or filtration Failure to control radiant heat from plant, equipment or surfaces (e.g. metal structures, asphalt) Poor drainage and site layout increasing slip and structural risks during heavy rainfall or storms 	3H	[REDACTED]	1L
6. Administrative Controls: Procedures, Work Instructions and Safe Systems of Work	<ul style="list-style-type: none"> Lack of documented procedures for working in extreme temperatures and hazardous weather Inconsistent application of safe work methods across crews and contractors Procedures that do not address rapid weather changes during work, including escalation and stand-down No formalised process for adjusting work pace, task rotation or staffing levels under harsh conditions Overly complex or inaccessible procedures resulting in poor field uptake Failure to incorporate learnings from incidents, near misses and weather events into procedures 	3H	[REDACTED]	1L
7. Worker Competency, Training and Awareness	<ul style="list-style-type: none"> Inadequate training on recognising early signs and symptoms of heat stress, heat stroke, dehydration, hypothermia and frostbite Lack of understanding of organisational weather policies, thresholds and escalation processes 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> Supervisors not competent to conduct weather-related risk assessments and make cease-work decisions Insufficient induction for new workers and contractors regarding site-specific weather and temperature risks Cultural and language barriers reducing understanding of weather-related risks and controls Reliance on informal 'working tough' attitudes and under-reporting of early symptoms 		<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	
8. PPE and Clothing Management Systems	<ul style="list-style-type: none"> Lack of a structured system for issuing, replacing and maintaining weather-appropriate PPE and clothing Inadequate standards for thermal, waterproof, windproof or sun-protective garments used in outdoor work Workers purchasing their own non-compliant clothing that is unsuitable for extreme heat or cold PPE unsuited to environmental conditions leading to reduced wear compliance (e.g. heavy gear in high heat) Insufficient supply of seasonal PPE leading to sharing or improvisation No process for evaluating PPE performance after severe weather events or incidents 	3H	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	1L
9. Health Monitoring, Fitness for Work and Vulnerable Workers	<ul style="list-style-type: none"> Lack of systems to identify workers at elevated risk from extreme heat or cold (e.g. pre-existing medical conditions, some medications, pregnancy) No process for health monitoring in prolonged or severe environmental conditions Inadequate hydration and nutrition strategies for workers in hot conditions 	4A	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	2M

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	<ul style="list-style-type: none"> Failure to manage fatigue, sleep disruption and cumulative strain associated with harsh weather work Insufficient consideration of acclimatisation, age, fitness level and cultural factors in allocating tasks Workers feeling pressure to continue working despite symptoms due to productivity or financial concerns 		[REDACTED]	
10. Communication, Supervision and Escalation Processes	<ul style="list-style-type: none"> Poor communication of weather risks and control expectations to all workers, particularly in dispersed outdoor locations Supervisors not actively monitoring workers for signs of heat or cold stress and environmental change No clear escalation pathway when conditions deteriorate unexpectedly during the workday Ineffective communication systems (e.g. radio dead zones, mobile blackspots) during storms or in remote areas Mixed messages from different managers regarding productivity expectations versus safety and decision decisions Contractors not integrated into organisational communication and escalation processes 	3H	[REDACTED]	1L
11. Emergency Preparedness, Response and Recovery for Weather Events	<ul style="list-style-type: none"> Lack of emergency response plans for heat illness, hypothermia, lightning strikes, storm damage or rapid weather changes Inadequate first aid resources and equipment suited to hot and cold exposure incidents Workers and supervisors unfamiliar with emergency procedures specific to extreme weather events Delayed medical response due to remote locations, access issues or 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> communication failures during storms or floods No process for temporary site shutdown, evacuation and controlled re-entry after severe weather Failure to capture debriefs and lessons learned following weather-related emergencies 		[REDACTED]	
12. Contractor and Supplier Management for Weather-Exposed Work	<ul style="list-style-type: none"> Contractors operating under different or less stringent standards for extreme temperatures and hazardous weather Poor verification of contractor competency and systems to manage harsh environmental conditions Subcontractor work scopes not clearly defining responsibilities for weather risk management Suppliers not providing equipment suitable for high heat, cold, wind or wet conditions Limited oversight of contractor work practices during rapidly changing weather conditions Inconsistent incident reporting and data sharing between principal contractors following weather-related events 	3H	[REDACTED]	1L
13. Remote, Isolated and After-Hours Work in Extreme Conditions	<ul style="list-style-type: none"> Workers exposed to extreme temperatures or sudden weather changes while working alone or in isolated locations Delayed emergency response due to distance, poor access or damaged infrastructure during storms or floods No reliable means of communication for lone workers during harsh weather conditions Inadequate journey management for travel to and from remote outdoor sites in changing weather 	4A	[REDACTED]	2M

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	<ul style="list-style-type: none"> Insufficient oversight of after-hours or weekend work where normal supervision is reduced Failure to provide location-specific weather triggers for ceasing remote or isolated work 			
14. Environmental, Site Condition and Infrastructure Management	<ul style="list-style-type: none"> Site layouts that amplify heat exposure (e.g. unshaded reflective hardstand, lack of natural vegetation) Unstable ground conditions, erosion or flooding risks during intense rain events Falling objects or structural failures during high wind or storm events due to poor design or maintenance Accumulation of ice, snow or water on access ways causing slips, trips and falls where applicable Inadequate inspection regimes for weather-affected structures, scaffolds, temporary works and utilities No process for temporarily isolating or barricading unsafe areas following severe weather 	3H	[REDACTED]	1L
15. Performance Monitoring, Reporting and Continuous Improvement	<ul style="list-style-type: none"> Lack of key performance indicators (KPIs) related to extreme weather and hazardous weather management Under-reporting of near misses, early symptoms and minor incidents associated with harsh weather exposure Inadequate analysis of incident and exposure data to identify trends and systemic weaknesses Failure to benchmark against industry good practice or regulatory guidance on managing extreme environmental conditions Inconsistent management review of the effectiveness of weather and temperature controls 	3H	[REDACTED]	1L

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	<ul style="list-style-type: none"> No structured process to incorporate worker feedback into system improvements 			

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 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>

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 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-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) Regulation 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>

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>

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

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.