Heat Stress Safety

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:

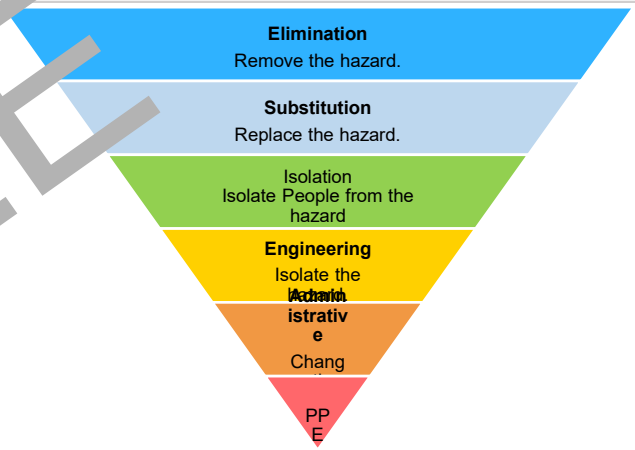
CLIENT OR PRINCIPAL CONTRACTOR DETAILS

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. WHS Governance, Policy and Legal Compliance	• Absence of a formal heat stress policy aligned with WHS Act 2011 and WHS Regulations • Management unaware of legal duties regarding heat, thermal comfort and consultation • Inconsistent expectations across sites regarding maximum temperatures and work restrictions • No defined organisational risk appetite or criteria specific to heat-related illness • Failure to consider vulnerable workers (new starters, young workers, pregnant workers, workers with pre-existing medical conditions) in governance documents • Contracts with labour hire or contractors that do not clearly allocate responsibilities for heat risk management	4A	• Develop and endorse a corporate Heat Stress Management Policy that references WHS Act 2011, WHS Regulations, Safe Work Australia guidance and relevant jurisdictional codes of practice • Integrate heat and thermal environment risks into the organisation's WHS risk management framework and enterprise risk register • Define clear heat stress risk criteria and escalation triggers (e.g. WBGT, ambient temperature, humidity, radiant heat, work intensity) with the WHS risk ma • Formally assign responsibilities for heat risk management to officers, managers and supervisors within position descriptions and WHS governance documents • Include vulnerable worker considerations and reasonable adjustment processes within the heat stress policy • Ensure all contracts and service level agreements require compliance with the organisation's heat stress policy and participation in its risk assessment processes Undertake periodic legal compliance reviews to confirm the heat stress management system remains consistent with current legislation and guidance	3H
2. Organisational Heat Risk Management Framework	• Lack of a structured process to identify and assess heat risks across all operations • Heat risks not systematically considered in project planning, change management or procurement decisions • Reliance on informal supervisor judgement instead of objective environmental and physiological criteria • Failure to integrate heat risk assessment into existing WHS risk assessment tools and processes • No organisation-wide standard for defining excessive heat or harsh thermal environments • Inadequate consideration of combined hazards (heat, physical exertion, chemicals, PPE, confined spaces)	4A	• Implement an organisation-wide heat risk assessment procedure that requires task, environment and worker factors to be assessed using recognised methods (e.g. WBGT, ISO 7243, thermal comfort indices) • Embed heat risk assessment requirements into project WHS plans, change management processes and design reviews for new or modified plant and facilities • Develop standardised heat risk assessment templates and guidance notes that can be applied across indoor and outdoor work, including harsh thermal environments such as furnace areas and boiler rooms • Define and document organisational thresholds for heat risk levels (e.g. low, moderate, high, extreme) with associated control requirements and stop-work triggers • Mandate consideration of compounding risk factors, including PPE, metabolic workload, chemical exposure, confined spaces and shift length, in all heat risk assessments • Require periodic review of heat risk assessments before and during heat seasons, and following incidents, near misses or extreme weather events	2M
3. Leadership, Roles, Responsibilities and Accountability	• Senior leaders not visibly supporting or resourcing heat stress controls	3H	• Define and document in the WHS management system the responsibilities of officers, managers, supervisors and health and safety representatives for heat stress management	2M

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	• Unclear allocation of responsibility for monitoring thermal conditions and implementing controls on each shift • Supervisors reluctant to stop or reschedule work during heat events due to production pressure • No defined authority for workers to cease unsafe work due to heat without fear of reprisal • Key heat stress tasks (hydration checks, rest-break enforcement, buddy systems) not owned by specific roles		• Incorporate heat stress performance expectations and leading indicators (e.g. compliance with rest breaks, measurement frequency, corrective action closure) into management KPIs • Formally empower supervisors and workers to stop, delay or modify work when pre-defined heat thresholds are exceeded, and communicate this authority clearly • Ensure senior leaders regularly communicate expectations on heat safety, including prioritising health over production during heat events • Assign specific roles for monitoring environmental data, recording measurements, enforcing work-rest regimes and coordinating emergency response for heat-related illness on each shift • Include heat stress responsibilities in contractor and labour hire onboarding packs and site induction materials	
4. Heat Exposure Identification, Monitoring and Data Management	• No formal system for monitoring indoor temperatures, humidity, radiant heat and air movement • Reliance on external weather reports that do not reflect actual indoor or localised harsh thermal environments • Infrequent or inconsistent data collection during peak heat periods or high-intensity tasks • No calibration, maintenance or verification regime for thermal monitoring equipment • Collected heat exposure data not recorded, trended or used for decision making • Localised hot spots (near ovens, furnaces, boilers, process lines, poorly ventilated rooms) not identified or mapped	4A	[redacted]	2M
5. Facility and Process Design for Thermal Management	• Facilities and processes designed without adequate consideration of thermal load and heat dissipation • High radiant heat from plant such as furnaces, boilers, ovens and heated process lines impacting nearby workstations • Insufficient insulation on hot surfaces leading to elevated ambient temperatures and burn risks	4A	[redacted]	2M

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	• Poor airflow pathways due to building layout, mezzanines, storage racking or partitioning • Inadequate separation between hot plant and worker occupied areas • Failure to consider future climate conditions and more frequent extreme heat events in design decisions		[redacted]	
6. Engineering Controls: Ventilation, Cooling and Heat Reduction Systems	• Insufficient mechanical ventilation or cooling capacity in indoor and harsh thermal environments • Local exhaust systems and general ventilation not designed or balanced to manage both contaminants and heat • Cooling equipment (fans, evaporative coolers, air conditioning, chillers) not maintained or operating as designed • No redundancy or contingency for cooling system failures during heat events • Poorly positioned fans or vents creating hot spots or recirculating hot ai • Reliance solely on administrative controls without pursuing practicable engineering improvements	4A	[redacted]	2M
7. Work Planning, Scheduling and Workload Management	• High-intensity physical work scheduled during peak heat periods without adjustment • No structured work-rest regime for hot environments and strenuous tasks • Extended shifts, overtime and consecutive hot days increasing cumulative heat strain and fatigue • Inflexible production targets that discourage rescheduling during heat events • Lack of planning for seasonal heat, heat waves and known thermal stress periods	4A	[redacted]	2M

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	• Inadequate staffing levels leading to reduced ability to rotate tasks or provide relief		[redacted]	
8. Hydration, Rest Areas and Thermal Recovery Facilities	• Insufficient access to cool, palatable drinking water close to work areas • No designated cool rest areas or shaded recovery zones in or near hot work locations • Inadequate rest break facilities leading workers to remain in hot environments during breaks • No monitoring or supervision of hydration practices in high-risk areas • Reliance on workers to self-manage hydration without structured guidance • Use of diuretic beverages (e.g. energy drinks, high-caffeine drinks) not discouraged in hot conditions	3H	[redacted]	2M
9. Worker Competency, Training and Induction on Heat Stress	• Workers and supervisors unable to recognise early signs and symptoms of heat stress and heat stroke • Lack of understanding of organisational heat policies, thresholds and stop-work triggers • New or temporary workers not adequately inducted on heat risks specific to the site and indoor environments • Supervisors not trained in applying work-rest regimes or interpreting monitoring results • Cultural and language barriers preventing effective understanding of heat controls and reporting • No refresher training prior to or during hotter seasons	3H	[redacted]	2M
10. Health Monitoring, Fitness for Work and Vulnerable Workers	• No system for assessing individual susceptibility to heat (medical conditions, medications, acclimatisation status)	4A	[redacted]	2M

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	• Workers with pre-existing conditions (cardiovascular disease, kidney issues, obesity, pregnancy) not identified or supported • Fitness for work processes not accounting for heat risk, shift work or cumulative fatigue • Absence of health monitoring in high-risk roles or harsh thermal environments • Workers returning from absence, cooler climates or leave immediately assigned to hot tasks without acclimatisation • Privacy concerns preventing workers from disclosing relevant health information		[redacted]	
11. Personal Protective Equipment and Clothing Management	• PPE and protective clothing increasing thermal load and impairing heat dissipation • Selection of PPE driven solely by hazard control without regard for therm impacts • No organisational idance on appropriate clothin for hot indoor conditions • Failure to evaluate cooling garment or PPE design improvements for hot environments • Workers modifying or removing PPE to gain relief from heat, increasing other safety risks	3H	[redacted]	2M
12. Contractor and Labour Hire Heat Risk Integration	• Contractors working in hot conditions without alignment to principal's heat stress controls • Labour hire workers unaware of site-specific indoor heat hazards and escalation procedures • Contractor safe work method statements focusing on task steps but omitting system-level heat controls	3H	[redacted]	2M

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	• Inadequate supervision and oversight of contractors during heat events or when work conditions change • Commercial arrangements incentivising continued work in unsafe heat conditions		[redacted]	
13. Communication, Consultation and Worker Engagement on Heat Risks	• Workers not consulted about practical issues with heat controls, leading to low uptake or workarounds • Inconsistent or delayed communication regarding heat alerts, changing conditions or control changes • Lack of mechanisms for workers to raise heat-related concerns or near misses • Failure to involve health and safety representatives in development of heat management strategies • Heat safety messages overshadowed by competing production operational communications	3H	[redacted]	2M
14. Incident, Near Miss and Data-Driven Continuous Improvement	• Heat-related incidents reported are misclassified, leading to underestimation of risk • Lack of systematic investigation of heat-related incidents, near misses and productivity impacts • No linkage between incident data, heat monitoring data and work planning decisions • Repeat heat-related events in the same areas due to ineffective corrective actions • Failure to capture learnings from external events (industry alerts, regulator notices, case law)	3H	[redacted]	2M

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15. Emergency Preparedness and Response for Heat-Related Illness	• No specific emergency response procedures for heat exhaustion and heat stroke • First aiders not trained or equipped to manage severe heat-related illness in harsh thermal environments • Delayed recognition of serious symptoms leading to late escalation to medical services • Inadequate access to cooling resources for rapid treatment (e.g. cool rooms, ice, water immersion options where appropriate) • Unclear arrangements for emergency access and evacuation from hot indoor areas or confined plant rooms	4A	[redacted]	2M
16. Seasonal Preparedness, Climate Change and Strategic Planning	• No seasonal planning for increasing frequency and intensity of heat waves and harsh thermal events • Heat risk controls not [redacted] updated in line with [redacted]g-term climate projections • Budgeting and res[redacted]ycles n[redacted] aligned with pre-summer preparation requirements • Failure to assess busin[redacted]ntinuity impacts from extended heat events on indoor operations • Reactive rather than proactive management of extreme heat, leading to rushed or inadequate control implementation	3H	[redacted]	2M

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