

Load Calculation And Planning Risk Assessment

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

THIS RISK ASSESSMENT IS APPROVED BY THE PCBU ON 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	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 the 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. Preparation	inadequate planning, lack of resources	3H	<ul style="list-style-type: none"> - Conduct comprehensive project scope analysis - Allocate adequate resources and personnel - Ensure all relevant permits are in place - Schedule meetings to outline project objectives - Develop a timeline with clear milestones - Implement a communication strategy among stakeholders - Review similar past projects for insights - Create a detailed project risk assessment - Confirm availability of necessary equipment - Plan for contingencies 	2M
2. Site Inspection	site accessibility issues, unknown site conditions	3H	<ul style="list-style-type: none"> - Conduct a preliminary site visit before project approval - Document and communicate access challenges - Use GPS and mapping for site navigation - Consult with local authorities regarding site conditions - Engage an experienced site manager - Verify all site restrictions with relevant authorities - Schedule regular site inspections - Inspect access routes for obstructions - Prepare alternative access routes - Acquire local site maps and related documentation 	2M
3. Resource Identification	insufficient equipment, inadequate supply of materials	4A	<ul style="list-style-type: none"> - Develop a comprehensive equipment list - Arrange for the rental of additional machinery if needed - Contact suppliers in advance for material availability - Create a tracking system for resource allocation - Coordinate with suppliers for timely deliveries - Verify equipment condition prior to project start - Implement inventory management for materials - Organise resource storage logistics 	2M

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			<ul style="list-style-type: none"> - Ensure all equipment is operational - Prepare for unexpected resource requirements 	
4. Personnel Training	lack of training, incorrect use of equipment	4A	<ul style="list-style-type: none"> - Provide training for all personnel - Ensure all personnel are familiar with equipment - Provide training for all personnel - Ensure all personnel are familiar with equipment - Provide training for all personnel - Ensure all personnel are familiar with equipment - Provide training for all personnel - Ensure all personnel are familiar with equipment - Provide training for all personnel - Ensure all personnel are familiar with equipment 	2M
5. Load Calculation	calculation errors, inadequate safety factors	4A	<ul style="list-style-type: none"> - Ensure all calculations are accurate - Ensure all safety factors are adequate - Ensure all calculations are accurate - Ensure all safety factors are adequate - Ensure all calculations are accurate - Ensure all safety factors are adequate - Ensure all calculations are accurate - Ensure all safety factors are adequate - Ensure all calculations are accurate - Ensure all safety factors are adequate 	1L
6. Crane Operation Planning	equipment failure, operator error	4A	<ul style="list-style-type: none"> - Ensure all equipment is operational - Ensure all operators are trained - Ensure all equipment is operational - Ensure all operators are trained - Ensure all equipment is operational - Ensure all operators are trained - Ensure all equipment is operational - Ensure all operators are trained - Ensure all equipment is operational - Ensure all operators are trained 	2M

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7. Load Transportation	vehicular accident, load shift	4A		2M
8. Weather Assessment	unexpected weather change inadequate weather forecasting	3H		2M
9. Communication Strategy Development	miscommunication, lack of information flow	3H		2M

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10. Regulatory Compliance Check	non-compliance with legislation, unverified permits	4A		2M
11. Emergency Response Planning	emergency unpreparedness, delayed response	4A		2M
12. Safety Gear and Equipment Check	inadequate PPE, equipment malfunction	3H		1L

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13. Task Sequencing	incorrect task order, task overlap	3H		1L
14. Stakeholder Engagement	stakeholder opposition, misalignment of project goals	3H		1L
15. Conflict Resolution Planning	interpersonal conflicts, dispute resolution delays	3H		1L

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16. Financial Risk Assessment	budget overruns, unforeseen financial liabilities	4A		2M
17. Technology Integration	technological failures, lack of tech support	3H		2M
18. Risk Monitoring and Review	inadequate risk monitoring, delayed identification of risks	4A		2M

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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.