

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

### Risk Rating & Required Action:

<b>4A</b>	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.
<b>3H</b>	Review and approve additional controls before task starts. Senior supervisor sign-off needed.
<b>2M</b>	Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.
<b>1L</b>	Proceed, following standard operating procedures. Monitor and keep records.

### Consequence Scale:

Consequence	People (injury/illness)	Project / Assets	Compliance / Reputation
<b>Catastrophic</b>	Fatality or permanent total disability	project shutdown	Significant regulator intervention; criminal prosecution
<b>Major</b>	Serious injury/illness (hospital > 5 days)	critical delay	Improvement notice; major media coverage
<b>Moderate</b>	Medical-treatment injury; lost-time > 1 day	moderate delay	Minor breach; adverse client comment
<b>Minor</b>	First-aid only, no lost time	negligible delay	Isolated non-conformance
<b>Insignificant</b>	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. Initial Analysis	Miscalculation of material quantities, Insufficient data collection	3H	<ul style="list-style-type: none"> <li>- Verify all source data before proceeding</li> <li>- Use digital tools for precise calculations</li> <li>- Cross-check calculations with team</li> <li>- Review historical data for accuracy</li> <li>- Have senior engineer supervise initial analysis</li> <li>- Ensure all data is current</li> <li>- Provide training on calculation software</li> <li>- Validate assumptions with stakeholders</li> <li>- Schedule additional analysis time</li> <li>- Implement double-check system</li> </ul>	2M
2. Determine Resource Availability	Supply chain disruptions, Material shortages	4H	<ul style="list-style-type: none"> <li>- Establish strong supplier relationships</li> <li>- Maintain backup suppliers</li> <li>- Regularly update supply inventory</li> <li>- Monitor global supply chain trends</li> <li>- Implement a resource allocation plan</li> <li>- Allocate safety stock</li> <li>- Perform regular audits on supplier reliability</li> <li>- Diversify supply sources</li> <li>- Use predictive analytics</li> <li>- Develop contingency plans for shortages</li> </ul>	3H
3. Estimating Material Costs	Financial misforecasting, Price volatility	3H	<ul style="list-style-type: none"> <li>- Use market analysis reports</li> <li>- Conduct price trend analysis</li> <li>- Update cost estimations regularly</li> <li>- Collaborate with the finance team</li> <li>- Set conservative budget estimates</li> <li>- Apply contingencies on estimates</li> <li>- Use automated budgeting tools</li> <li>- Regular communication with suppliers</li> </ul>	2M

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			<ul style="list-style-type: none"> <li>- Use historical data for price predictions</li> <li>- Train staff on budgeting tools</li> </ul>	
4. Data Collection	Data entry errors, Inconsistent information	3H	<ul style="list-style-type: none"> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> </ul>	2M
5. Risk Assessment	Overlooking potential risks, Underestimating impact	3H	<ul style="list-style-type: none"> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> </ul>	2M
6. Project Planning	Unrealistic timelines, Resource over-commitment	3H	<ul style="list-style-type: none"> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> <li>- [REDACTED]</li> </ul>	2M

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7. Resource Procurement	Delays in procurement, Quality issues	3H		2M
8. Material Specifications	Incorrect material specs. Non compliance with standards	3H		2M
9. Stakeholder Consultation	Miscommunication of requirements, Stakeholder conflicts	3H		2M

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10. Develop Material Plan	Inadequate planning, Plan deviations during execution	3H		2M
11. Review and Approval	Delays in approval, Insufficient review processes	3H		2M
12. Implementation	Implementation errors, Adjustment issues	3H		2M

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13. Monitoring	Failure to identify issues, Inadequate monitoring processes	3H		2M
14. Reporting	Inaccurate reporting, Delayed reporting	3H		2M
15. Feedback Evaluation	Ignoring stakeholder feedback, Unresolved issues	3H		2M

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16. Adjustments	Incorrect adjustments, Delay in adjustments	3H		2M
17. Follow-up	Neglecting follow-up actions, Inconsistent follow-ups	3H		2M
18. Project Completion	Unresolved issues, Incomplete documentation	3H		2M



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19. Post-Implementation Review	Overlooking key learnings, Inadequate review processes	3H		2M
20. Continuous Improvement	Stagnation, Failure to innovate	3H		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 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.