

Concrete Pump and Spraying Risk Assessment

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:

- Eliminate**
- Substitute
- Isolate
- Engineering
- Administrative
- 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 site inspection	3H	<ul style="list-style-type: none"> - Conduct a comprehensive site assessment - Develop a detailed work plan - Ensure all personnel receive a site induction - Establish clear communication protocols - Review emergency procedures - Confirm environmental conditions are safe - Ensure equipment is suitable for the conditions - Engage with all stakeholders for input - Prepare a list of contacts and emergency numbers - Train staff in hazard recognition 	2M
2. Delivery of Concrete Pump	Traffic accidental striking, Collision with structures	3H	<ul style="list-style-type: none"> - Use a qualified spotter during delivery - Maintain clear communication between driver and spotter - Plan delivery outside peak hours - Ensure adequate signage is visible - Implement traffic management plans - Check delivery paths for obstacles - Schedule deliveries to minimize congestion - Conduct regular vehicle maintenance - Train drivers in defensive driving techniques - Use barricades to separate work area 	2M
3. Setup of Concrete Pump	Incorrect setup, Equipment failure	3H	<ul style="list-style-type: none"> - Follow manufacturer's instructions for setup - Ensure only trained personnel perform setup - Double-check stabiliser positions - Use barriers to demarcate working area - Conduct a pre-operation check - Inspect all equipment for defects - Ensure communication devices are functional - Regularly maintain and service equipment 	2M

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			<ul style="list-style-type: none"> - Train operators in emergency shutdown procedures - Maintain a checklist for setup procedures 	
4. Establishment of Safety Zones	Struck by machinery, Lack of demarcation	3H	<ul style="list-style-type: none"> - Establish safety zones around machinery - Use high-visibility safety vests - Implement a strict no-go zone policy - Conduct regular safety training for all personnel - Use physical barriers to demarcate safety zones - Assign a dedicated safety officer to monitor zones - Implement a permit-to-work system for high-risk areas - Use clear signage to indicate safety zones - Establish a strict protocol for entering safety zones - Conduct regular safety audits of safety zones - Implement a strict protocol for emergency shutdowns - Use clear communication channels between operators and safety personnel - Implement a strict protocol for equipment maintenance - Use clear communication channels between operators and safety personnel - Implement a strict protocol for equipment maintenance 	1L
5. Equipment Inspection	Defective equipment, Non-compliance with standards	3H	<ul style="list-style-type: none"> - Conduct regular equipment inspections - Use a checklist to ensure compliance with standards - Implement a strict protocol for equipment maintenance - Assign a dedicated safety officer to monitor equipment - Use clear communication channels between operators and safety personnel - Implement a strict protocol for equipment maintenance - Use clear communication channels between operators and safety personnel - Implement a strict protocol for equipment maintenance 	1L
6. Mixing and Collection of Concrete	Cement burns, Exposure to dust	3H	<ul style="list-style-type: none"> - Use appropriate PPE (respirators, gloves, eye protection) - Implement a strict protocol for handling cement - Use clear communication channels between operators and safety personnel - Implement a strict protocol for equipment maintenance - Use clear communication channels between operators and safety personnel - Implement a strict protocol for equipment maintenance 	2M

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7. Positioning Boom	Boom strike, Instability	4A		2M
8. Connection of Hoses	Leaking connections, Hose rupture	3H		2M
9. Pump Operation	Over-pressurisation, Blockages	4A		2M

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10. Monitoring and Communication	Miscommunication, Delay in hazard identification	3H		2M
11. Supervisor Checks	Inadequate supervision, Missed inspections	3H		1L
12. Environmental Factors	Adverse weather, Poor visibility	4A		2M

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13. Cleaning Equipment	Exposure to chemicals, Inadequate waste disposal	3H		1L
14. Breakdown Procedures	Unexpected equipment failure, Lack of response protocol	3H		1L
15. Completion and Demobilisation	Site contamination, Residual hazards	3H		1L

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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.