

Concrete Pumping (Boom Pumping) 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	4A ACUTE	DO NOT PROCEED	Elimination Remove the hazard.	
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE			Substitution Replace the hazard.	
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE			Isolation Isolate People from the hazard	
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE			Engineering Isolate the hazard	
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH			Administrative Change	
						1L LOW	Monitor and keep records.	PPE	
Risk Rating & Required Action:								Notes on Hierarchy of Controls:	
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.								Remember to apply controls in the preferred order shown by the coloured pyramid:	
3H Review and approve additional controls before the task starts. Senior supervisor sign-off needed.								1. Eliminate	
2M Ensure all nominated controls are in place and effective. Proceed with caution; monitor conditions.								2. Substitute	
1L Proceed, following standard operating procedures. Monitor and keep records.								3. Isolate	
								4. Engineering	
								5. Administrative	
								6. PPE	
Consequence Scale:								Always document why a lower-order control is accepted if elimination or substitution is not reasonably practicable.	
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				
								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	Slips, Trips, Falls	3H	<ul style="list-style-type: none"> - Conduct a site survey to identify potential hazards. - Ensure clear access and egress are available. - Use non-slip mats in slippery areas. - Provide appropriate footwear to all workers. - Brief workers about site-specific risks. - Ensure proper lighting in work areas. - Clearly mark hazardous zones. - Conduct a toolbox talk before starting activities. - Inspect equipment for defects before use. - Ensure ground areas are clear of debris. 	2M
2. Excavation Inspection	Collapse of ground, Uneven surfaces	3H	<ul style="list-style-type: none"> - Inspect excavation site for stability. - Erect barriers around the edges of excavations. - Maintain even ground levels where possible. - Train workers in recognising unstable conditions. - Set up exclusion zones. - Ensure all personnel are aware of excavation locations. - Use temporary shoring where required. - Regularly assess ground conditions for changes. - Ensure all inspections are documented. - Communicate any changes in site conditions promptly. 	2M
3. Pump Setup	Equipment failure, Electrical hazards	4A	<ul style="list-style-type: none"> - Use only certified equipment for the task. - Conduct pre-start checks on all equipment. - Ensure electrical systems are earthed. - Position pump on stable, level ground. - Verify all safety devices are operational. - Use licensed operators for setup and operation. - Identify any overhead power lines and avoid. - Provide adequate training for staff on emergency procedures. 	2M

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			<ul style="list-style-type: none"> - Regular maintenance checks documented. - Implement lockout/tagout procedures. 	
4. Delivery Line Setup	Line burst, Trip hazards	3H	<ul style="list-style-type: none"> - Regular maintenance checks documented. - Implement lockout/tagout procedures. - Ensure all connections are secure and tight. - Use appropriate tools and equipment for line setup. - Follow manufacturer's instructions for line installation. - Inspect line for damage or wear before use. - Avoid sharp bends or kinks in the line. - Secure the line properly to prevent tripping hazards. - Use proper lifting techniques when handling the line. - Keep the work area clean and free of debris. - Wear appropriate PPE (hard hat, safety glasses, gloves). - Communicate with team members during setup. - Stop work immediately if a line burst occurs. - Report any issues or damage to the supervisor. 	2M
5. Control Panel Operation	Crushing incident Untrained operation	3H	<ul style="list-style-type: none"> - Only trained personnel should operate the control panel. - Read and understand the control panel instructions before use. - Ensure all safety guards are in place and functioning. - Do not touch moving parts or machinery while the panel is operating. - Stop the machine if an abnormal sound or vibration is noticed. - Keep hands and feet clear of the machinery. - Do not attempt to adjust or repair the machinery while it is running. - Follow the correct sequence of operations for the control panel. - Avoid overloading the machinery. - Keep the control panel clean and free of dust or debris. - Report any malfunctions or issues to the supervisor. - Do not use the machinery if you are unsure or uncomfortable. 	2M
6. Concrete Pouring	Overfills, Structural collapse	4A	<ul style="list-style-type: none"> - Follow the correct pouring sequence and rate. - Use appropriate tools and equipment for pouring. - Monitor the concrete level closely to avoid overfills. - Stop pouring if a structural collapse is observed. - Report any issues or concerns to the supervisor. - Do not stand on or near the concrete being poured. - Use proper lifting techniques when handling the concrete. - Keep the work area clean and free of debris. - Wear appropriate PPE (hard hat, safety glasses, gloves). - Communicate with team members during pouring. - Stop work immediately if a structural collapse occurs. - Report any issues or damage to the supervisor. 	2M

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7. Boom Operation	Boom failure, Collision with structures	4A		2M
8. Cleaning and Maintenance	Exposure to harmful chemicals due to wet surfaces	3H		1L
9. Demobilisation	Equipment Strikes, Loading Incidents	3H		1L

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10. Documentation and Review	Incomplete Records, Unauthorised Access	2M		1L
11. Emergency Preparedness	Fire Outbreaks, Medical Emergencies	4A		2M
12. Employee Training	Skill Gaps, Non-Compliance	3H		1L

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13. Environmental Considerations	Pollution, Erosion	3H		1L
14. Traffic Management	Vehicle Collisions, Pedestrian Hazards	3H		2M
15. Weather Monitoring	Lightning Strikes, High Winds	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.