

Injections Grouting Procedures 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:								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 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				
								<i>aligned with Safe Work Australia's Managing the risk of fatigue at work (2023) and ISO 45001:2018 clauses 6–8.</i>	

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	Exposure to hazardous materials, Slips and trips	3H	<p>Conduct a site inspection before starting work</p> <p>Ensure all workers have current Safety Data Sheets (SDS) for materials</p> <p>Provide personal protective equipment (PPE) such as gloves, goggles, and safety boots</p> <p>Clear and clean workspace to prevent slips and trips</p> <p>Perform a toolbox talk to discuss potential hazards and safety measures</p> <p>Ensure all workers are trained in hazard identification and risk management</p> <p>Use spill containment kits in preparation for potential leaks or spills</p> <p>Implement a buddy system for enhanced supervision and assistance</p> <p>Post clear signage regarding possible hazardous materials</p> <p>Eliminate unnecessary items from work area to minimize clutter</p>	2M
2. Mobilisation of Equipment	Manual handling injuries, Equipment collision	3H	<p>Use mechanical aids for lifting heavy items whenever possible</p> <p>Provide manual handling training to all workers</p> <p>Designate specific walking paths for equipment transportation</p> <p>Ensure operators are licensed and competent for equipment used</p> <p>Implement a spotter system during equipment movement</p> <p>Maintain regular communication between team members via radio</p> <p>Conduct pre-use inspections of equipment for faulty components</p> <p>Establish a traffic control system using barriers and signage</p> <p>Always use correct lifting techniques to reduce strain</p> <p>Limit speed of equipment in pedestrian areas to minimise collision risks</p>	2M
3. Setup of Grouting Equipment	Equipment failure, Exposure to noise	3H	<p>Conduct equipment checks and maintenance before setup</p> <p>Ensure all cables and connections are securely fastened</p> <p>Use hearing protection devices such as earplugs or earmuffs</p> <p>Position noise barriers around noisy equipment</p> <p>Ensure emergency stop mechanisms are functional</p> <p>Provide training on equipment-specific safety protocols</p> <p>Establish a regular maintenance schedule for grouting equipment</p> <p>Test all emergency shutdown processes for reliability</p>	1L

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			Isolate noisy equipment from occupied areas where possible Ensure clear access to all equipment controls for operators	
4. Mixing of Grout	Contact with grout chemicals, Dust inhalation	3H	[REDACTED]	2M
5. Injection Hose Setup	Pinch points, Pressure leaks	3H	[REDACTED]	1L
6. Injection Process	High-pressure fluid injection, Equipment malfunction	4A	[REDACTED]	2M

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7. Monitoring the Grout Flow	Inaccurate measurements, Electrical hazards	3H		1L
8. Completion	Falls from height, Musculoskeletal injuries	3H		2M
9. Clean Up	Exposure to cleaning chemicals, Slips and trips	3H		1L

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10. Demobilisation of Equipment	Equipment damage, Traffic hazards	3H		2M
11. Disposal of Waste	Chemical exposure, Environmental contamination	4A		2M
12. Final Inspection and Sign-Off	Missed hazards, Inadequate documentation	3H		1L

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13. Review and Improve Process	Complacency, Lack of feedback	3H		1L
14. Training	Skill gaps, Non-compliance	4A		2M
15. Reporting and Documentation	Data loss, Inaccurate reporting	3H		2M

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16. Incident Management	Delayed response, Improper incident analysis	4A		2M
17. Emergency Preparedness	Inadequate emergency plans, Confusion during emergencies	4A		2M
18. Personal Protective Equipment (PPE)	Inadequate PPE, PPE non-compliance	3H		1L

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19. Safety Culture	Lack of awareness, Poor communication	3H		1L
20. Communication Systems	Miscommunication, System failures	3H		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.