

Respirable Crystalline Silica Exposure 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	inadequate PPE, incorrect setup	3H	<ul style="list-style-type: none"> - Ensure all personnel are trained on PPE usage - Verify setup according to manufacturer guidelines - Conduct initial site inspection - Use signage to indicate work area boundaries - Implement a Job Safety Analysis - Regular toolbox meetings for briefing - Ensure communication devices are working - Label all equipment correctly - Conduct risk briefing prior to work - Keep a register of equipment 	2M
2. Equipment Inspection	equipment malfunction, incorrect operation	4H	<ul style="list-style-type: none"> - Conduct pre-start equipment checks - Calibrate equipment as needed - Schedule regular maintenance checks - Use equipment logs - Check power supplies and connections - Ensure operators are certified - Report any defects immediately - Ensure spare parts are available - Implement a lockout/tagout system - Maintain protective guards on equipment 	2M
3. Material Storage	dust generation, spillages	3H	<ul style="list-style-type: none"> - Store materials in sealed containers - Label storage areas clearly - Implement spill response procedure - Use dust suppression techniques - Isolate storage areas from high traffic - Regularly inspect storage conditions - Maintain spill kits on-site - Enforce strict handling procedures 	1L

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			<ul style="list-style-type: none"> - Regular cleaning of storage areas - Limit access to authorised personnel 	
4. Handling and Mixing	dust exposure, skin contact	4A	<ul style="list-style-type: none"> - Use of appropriate PPE (respiratory protection, gloves, eye protection) - Avoidance of direct contact with dust - Regular cleaning of work areas - Use of local exhaust ventilation (LEV) - Restriction of access to the work area - Regular maintenance of equipment - Use of wet methods to suppress dust - Adequate ventilation of the work area - Regular cleaning of clothing and tools - Use of designated storage areas - Regular monitoring of dust levels - Training of personnel on dust hazards and control measures - Use of dust-free materials where possible - Regular health surveillance of personnel - Use of dust-free work surfaces - Regular cleaning of the work area - Use of dust-free tools and equipment - Regular maintenance of the work area - Use of dust-free materials - Regular cleaning of the work area - Use of dust-free tools and equipment - Regular maintenance of the work area - Use of dust-free materials 	2M
5. Cutting and Grinding	silica dust inhalation, eye injury	4A	<ul style="list-style-type: none"> - Use of appropriate PPE (respiratory protection, eye protection, gloves) - Avoidance of direct contact with dust - Regular cleaning of work areas - Use of local exhaust ventilation (LEV) - Restriction of access to the work area - Regular maintenance of equipment - Use of wet methods to suppress dust - Adequate ventilation of the work area - Regular cleaning of clothing and tools - Use of designated storage areas - Regular monitoring of dust levels - Training of personnel on dust hazards and control measures - Use of dust-free materials where possible - Regular health surveillance of personnel - Use of dust-free work surfaces - Regular cleaning of the work area - Use of dust-free tools and equipment - Regular maintenance of the work area - Use of dust-free materials - Regular cleaning of the work area - Use of dust-free tools and equipment - Regular maintenance of the work area - Use of dust-free materials 	2M
6. Drilling Operations	silica dust, noise	4A	<ul style="list-style-type: none"> - Use of appropriate PPE (respiratory protection, eye protection, earplugs) - Avoidance of direct contact with dust - Regular cleaning of work areas - Use of local exhaust ventilation (LEV) - Restriction of access to the work area - Regular maintenance of equipment - Use of wet methods to suppress dust - Adequate ventilation of the work area - Regular cleaning of clothing and tools - Use of designated storage areas - Regular monitoring of dust levels - Training of personnel on dust hazards and control measures - Use of dust-free materials where possible - Regular health surveillance of personnel - Use of dust-free work surfaces - Regular cleaning of the work area - Use of dust-free tools and equipment - Regular maintenance of the work area - Use of dust-free materials - Regular cleaning of the work area - Use of dust-free tools and equipment - Regular maintenance of the work area - Use of dust-free materials 	2M

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7. Demolition	structural collapse, dust clouds	4A		1L
8. Clean-up Procedures	re-suspension of dust, impurities, waste disposal	3H		1L
9. Transportation	material leaks, vehicle accidents	3H		2M

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10. Equipment Shutdown	unexpected energy release, incomplete shutdown	3H		1L
11. Disposal of Equipment	contamination, incomplete deactivation	3H		1L
12. Health Monitoring	undetected health issues, non-compliance with procedures	3H		1L

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13. Emergency Response	panic, inadequate response	3H		2M
14. Record Keeping	data loss, non-compliance	2M		1L
15. Continuous Improvement	stagnation, failure to adapt	2M		1L

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16. Training and Induction	ill-prepared workers, knowledge gaps	3H		2M
17. Contractor Management	unfamiliar with site procedures, communication barriers	3H		2M
18. Communication	miscommunication, ineffective warnings	2M		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>

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>

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>

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.

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>

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>

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