

Potential Exposure To Silica Dust 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:	

SAMPLE

RISK MATRIX							
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records.

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

Hierarchy of Controls	
Elimination	Remove the hazard.
Substitution	Replace the hazard.
Isolation	Isolate People from the hazard
Engineering	Isolate the hazard
Administrative	Change
PPE	PPE

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. Site Assessment	Unidentified silica dust sources, Inadequate air monitoring	4A	<ul style="list-style-type: none"> Conduct a thorough site inspection to identify potential dust sources Utilise air sampling equipment to determine baseline silica levels Ensure consultation with a qualified occupational hygienist Document findings and develop a site-specific risk profile Regularly update the assessment as new information becomes available Train site assessors on identifying silica dust hazards Schedule periodic reassessments Incorporate feedback from workers regarding low exposures Recognise and evaluate potential dust-generating activities Consider seasonal environmental changes that may impact dust levels 	3H
2. Equipment Selection	Selection of non-compliant tools, Inadequate dust suppression features	3M	<ul style="list-style-type: none"> Select tools specifically designed for silica dust control Ensure all equipment is compliant with Australian Standards Choose tools with integrated dust collection systems Opt for wet-cutting methods when applicable Regularly inspect tool condition and maintenance records Utilise equipment from reputable suppliers with silica dust control certifications Train operators on proper tool usage and maintenance Verify that all equipment is properly fitted with dust suppression accessories Implement a procedure for rapid reporting and repairing faulty tools Coordinate with manufacturers for updates on new dust suppression technologies 	2M
3. Personal Protective Equipment (PPE)	Inadequate PPE selection, Improper PPE usage	3H	<ul style="list-style-type: none"> Conduct a PPE hazard assessment specific to silica risk Provide respirators with P1 or P2 filters suitable for silica dust Ensure proper fit testing of all respiratory equipment Educate workers on the correct use and maintenance of PPE Ensure availability of alternative PPE sizes and types Implement PPE inspection and replacement program Store PPE in a clean, dry environment away from contaminants Supervise PPE usage to ensure compliance 	2M

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			Document all PPE training and fit testing sessions Review and update PPE requirements biannually	
4. Work Area Containment	Improper isolation of work areas, Failure to control dust migration	3H	[REDACTED]	2M
5. Training and Competency	Inadequate training programs, Lack of worker competency	4A	[REDACTED]	2M
6. Operational Controls	Inadequate operational procedures, Lapses in procedure adherence	4A	[REDACTED]	3H

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			[REDACTED]	
7. Ventilation Systems Installation	Improper ventilation design, System inefficiency	3H	[REDACTED]	2M
8. Health Surveillance	Delayed health surveillance, Inadequate medical examinations	4A	[REDACTED]	2M
9. Emergency Procedures	Inadequate emergency response plan, Lack of emergency drill assessments	4A	[REDACTED]	2M

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			[REDACTED]	
10. Monitoring and Reporting	Inadequate monitoring systems, Lag in data reporting	3H	[REDACTED]	2M
11. Waste Management	Improper silica waste disposal Concentration of dust in waste bins	3H	[REDACTED]	2M
12. Housekeeping	Dust accumulation on surfaces, Resuspension of settled dust	4A	[REDACTED]	2M

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			[REDACTED]	
13. Worker Consultation and Engagement	Lack of worker involvement, Unaddressed worker concerns	3H	[REDACTED]	2M
14. Task Scheduling	High-risk tasks during peak hours, Simultaneous dust-generating activities	3H	[REDACTED]	2M
15. Review and Continuous Improvement	Stagnant policies, Ineffective risk management updates	3H	[REDACTED]	1L

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			<div style="background-color: black; height: 15px; width: 100%;"></div> <div style="background-color: black; height: 15px; width: 95%;"></div> <div style="background-color: black; height: 15px; width: 90%;"></div> <div style="background-color: black; height: 15px; width: 85%;"></div> <div style="background-color: black; height: 15px; width: 80%;"></div> <div style="background-color: black; height: 15px; width: 75%;"></div> <div style="background-color: black; height: 15px; width: 70%;"></div> <div style="background-color: black; height: 15px; width: 65%;"></div> <div style="background-color: black; height: 15px; width: 60%;"></div> <div style="background-color: black; height: 15px; width: 55%;"></div>	

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 FOR 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-of-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/work-places-and-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>

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/work-places/codes-of-practice#COPs>

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

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.

