

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 THE 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. 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 or 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	<ul style="list-style-type: none"> Establish and maintain a controlled work area with physical barriers and warning signs. Use negative air pressure systems to contain dust and prevent migration to other areas. Ensure proper sealing of work area boundaries. Post trained personnel to monitor and enforce access restrictions. Use HEPA filtered vacuum systems for dust cleanup. Implement strict housekeeping protocols. Use drop cloths and protective coverings on adjacent surfaces. Minimize dust-generating activities. Post warning signs and barriers to restrict access. Use appropriate PPE for all personnel in the area. Establish a decontamination procedure for personnel and equipment exiting the work area. 	2M
5. Training and Competency	Inadequate training programs, Lack of worker competency	4A	<ul style="list-style-type: none"> Develop comprehensive training program covering all tasks and hazards. Provide hands-on training and practical experience. Implement a competency assessment process. Ensure training is up-to-date and reflects current practices. Use qualified trainers/instructors. Document training completion and competency. Provide ongoing training and refresher courses. Establish a mentorship program for new workers. Use visual aids and job aids. Conduct regular safety meetings and toolbox talks. Encourage a safety culture of continuous improvement. Provide training on proper use of PPE. Implement a system for reporting and addressing unsafe acts. Use a variety of training methods (classroom, hands-on, etc.). Ensure training is accessible to all workers. 	2M
6. Operational Controls	Inadequate operational procedures, Lapses in procedure adherence	4A	<ul style="list-style-type: none"> Develop clear, concise, and detailed operational procedures. Implement a system for monitoring and enforcing procedure adherence. Use checklists to ensure all steps are followed. Provide ongoing training and refresher courses. Establish a system for reporting and addressing unsafe acts. Use visual aids and job aids. Conduct regular safety meetings and toolbox talks. Encourage a safety culture of continuous improvement. Provide training on proper use of PPE. Implement a system for reporting and addressing unsafe acts. Use a variety of training methods (classroom, hands-on, etc.). Ensure training is accessible to all workers. 	3H

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

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

involvement,
worker concerns

3H

SAMPLE

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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.