



## SILICA DUST GUIDE - SAFE WORK METHOD STATEMENT AND WORKER RPE USE REGISTER (SWMS)

<b>Company Name: M&amp;K Plant Hire Services Pty Ltd</b>	Principal Contractor (PC):
Business Contact: Paul Smith Contact Phone #: 07 3245 4414	PC Address:
Responsible person (for monitoring SWMS and work): Peter McGhie	PC Phone #:
Signature:  ABN: 65 676 448 543	Job Site Address:
Business Address: PO Box 895, Capalaba Qld 4157	<a href="mailto:bookings@mandkplanthire.com.au">bookings@mandkplanthire.com.au</a>

<b>SITE MANAGEMENT PLAN</b>	Is the work associated with a Construction Project? <input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b>	If yes – This SWMS must align with requirements of the Site Management Plan in place for the Construction Project.
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**THIS WORK ACTIVITY INVOLVES THE FOLLOWING “HIGH-RISK CONSTRUCTION WORK” (HRCW - IDENTIFIED IN THE JOB TASK COLUMN)**

<input type="checkbox"/> Confined spaces	<input checked="" type="checkbox"/> Mobile plant movement	<input type="checkbox"/> Demolition of a load-bearing structure	<input type="checkbox"/> Asbestos disturbance
<input type="checkbox"/> Using explosives	<input type="checkbox"/> Diving work	<input type="checkbox"/> Artificial extremes of temperature	<input checked="" type="checkbox"/> Tilt-up or pre-cast concrete
<input type="checkbox"/> Pressurised gas distribution mains or piping chemical, fuel or refrigerant lines energised electrical installations or services			
<input checked="" type="checkbox"/> Structures or buildings involving structural alterations or repairs that require temporary support to prevent collapse			
<input type="checkbox"/> Involves a risk of a person falling from 2m or more, including work on telecommunications towers			
<input checked="" type="checkbox"/> Working at depths greater than 1.5 metres, including tunnels or mines		<input checked="" type="checkbox"/> Work in an area that may have a contaminated or flammable atmosphere	
<input type="checkbox"/> Work carried out adjacent to a road, railway or shipping lane, traffic corridor		<input type="checkbox"/> In or near water or other liquid that involves the risk of drowning	

**WORKING WITH A RISK OF A FALL OVER 2 METRES.** Select the fall from height 'hierarchy of control level' considered when establishing controls:

<input checked="" type="checkbox"/> L 1: Work on the ground or solid construction	<input type="checkbox"/> L 4: Use a fall arrest system e.g., safety harness, catch platforms
<input checked="" type="checkbox"/> L 2: Use a passive fall restraint system e.g., guard rails, scaffolding, EWP	<input checked="" type="checkbox"/> L 5: Implement administrative controls e.g., signage, or instruction
<input type="checkbox"/> L 3: Use a work positioning system e.g., travel restraint, rope access	<input type="checkbox"/>

More than one of these measures to reduce risk can be used. See attached Silica Guide for a guide control for related controls for the Silica Risks. Appendix 2.



<b>Planning/Preparation</b>	<ul style="list-style-type: none"> <li>• Liaise with Principal Contractor to identify on-site safety systems and procedures</li> <li>• Establish supervisory and communication arrangements</li> <li>• Principal contractor to confirm emergency response procedures are in place.</li> </ul>
<b>Hold Points</b>	<ul style="list-style-type: none"> <li>• Hold points identified and signed off before continuing work. – live service – incorrect controls for silica management</li> </ul>
<b>Training/Licence</b>	<ul style="list-style-type: none"> <li>• All workers to have a General Construction Induction Card</li> <li>• Relevant workers have relevant certificates of competency, licenses, and training. Trained First Aider on site</li> <li>• All workers trained in site-specific emergency and evacuation procedures, SWMS, safe work procedures, and safety data sheets.</li> </ul>
<b>Worker duties and responsibilities</b>	<ul style="list-style-type: none"> <li>• Fit condition for work, i.e., no signs of fatigue, alcohol or drugs</li> <li>• Attend all site inductions/briefings</li> <li>• Comply with all site requirements, e.g. PPE, Traffic Management Plans (TMP)</li> <li>• Only carry out work related to the contract</li> <li>• Inspect completed work and report possible safety, environmental and quality matters to the supervisor.</li> </ul>
<b>Monitor/Review</b>	<ul style="list-style-type: none"> <li>• All people involved in the task must have this SWMS communicated to them before work commences</li> <li>• SWMS to be reviewed and amended if necessary, in consultation with relevant people after any near miss or incident</li> <li>• If additional site hazards identified, review this SWMS and amend control measures to suit</li> <li>• People, including workers, contractors and sub-contractors, affected by the revisions to this SWMS, must be informed ASAP</li> <li>• Give the principal contractor a copy of the revised SWMS</li> <li>• The site supervisor to monitor works against the controls stated in this SWMS</li> <li>• SWMS must be kept on-site and made available for inspection or review</li> <li>• Keep a record of this SWMS until the job is complete or for two years if involved in a notifiable incident</li> <li>• Regardless of any other factor, the person in control of the workplace must review this SWMS at least annually.</li> </ul>
<p><b>References:</b></p> <ul style="list-style-type: none"> <li>→ Worksafe QLD (Workplace Health and Safety, Electrical Safety Office, Workers' Compensation Regulator, Workcover</li> <li>→ Work Health and Safety Act 2011/2024</li> <li>→ Work Health and Safety Regulation 2011</li> <li>→ Electrical Safety Act 2002</li> <li>→ Electrical Safety Regulation 2013</li> <li>→ Environment Protection Act 1994</li> <li>→ Environmental Protection (Air) Policy 2019</li> <li>→ Environmental Protection (Noise) Policy 2019</li> <li>→ Environmental Protection (Water and Wetland Biodiversity) Policy 2019</li> <li>→ Environmental Protection Regulation 2019</li> </ul> <p><b>Codes of Practice</b></p> <ul style="list-style-type: none"> <li>→ Labelling of Workplace Hazardous Chemicals Code of Practice 2021</li> <li>→ Managing the Risk of Falls at Workplaces Code of Practice 2021</li> <li>→ Managing the Work Environment and Facilities Code of Practice 2021</li> <li>→ Electrical safety code of practice - Works 2020</li> </ul>	
<p><b>Codes of Practice continued...</b></p> <ul style="list-style-type: none"> <li>→ Electrical safety code of practice 2021</li> <li>→ Managing electrical risks in the Workplace</li> <li>→ First Aid in the Workplace Code of Practice 2021</li> <li>→ Hazardous Manual Tasks Code of Practice 2021</li> <li>→ How to Manage Work Health and Safety Risks Code of Practice 2021</li> <li>→ Managing Noise and Preventing Hearing Loss at Work Code of Practice 2021</li> <li>→ Electrical safety code of practice 2020 - Working near overhead and underground electric lines</li> <li>→ Excavation Work Code of Practice 2021</li> <li>→ Demolition Code of Practice 2021</li> <li>→ Managing Risks of Plant in the Workplace Code of Practice 2021</li> <li>→ Traffic management for construction or maintenance work Code of Practice 2008</li> <li>→ Managing the risk of Psychosocial hazards at work Code of Practice 2022</li> <li>→ Managing respirable crystalline silica dust exposure in construction and manufacturing of construction elements Code of practice 2022</li> </ul> <p><b>Project specific references:</b></p>	



## Personal Protective Equipment (PPE)

FOOT PROTECTION	EYE PROTECTION	FACE PROTECTION	DISPOSABLE HAND PROTECTION	PROTECTIVE CLOTHING	HALF-FACE RESPIRATORS (P1 / P2 / DISPOSABLE / CARTRIDGE)	DISPOSABLE HALF-FACE RESPIRATOR
						
☒	☒	☐	☒	☒	☒	☒

JOB TASK	HAZARDS	RISK	CONTROL MEASURES	RESPONSIBLE PERSON
1. Training	Exposure to respirable crystalline silica (RCS)	4A	<ul style="list-style-type: none"> <li>• Training and Information provided to workers on respirable crystalline silica (RCS) should include:               <ul style="list-style-type: none"> <li>○ Information on RCS through Safety Datasheet (SDS) or labels</li> <li>○ Risk management process</li> <li>○ Work practices, procedures and control measures</li> <li>○ How to fit, use, maintain and clean personal protective equipment (PPE)</li> <li>○ Emergency procedures, including any special decontamination procedures or PPE failures</li> <li>○ First aid and incident reporting procedures</li> <li>○ The purpose and results of air monitoring including the types of health tests that may be required</li> <li>○ Checking controls are working and using them</li> <li>○ Waste collection and disposal.</li> <li>○ Fit testing for workers wearing respirators</li> </ul> </li> </ul>	<b>Organisation/Supervisor</b>
	Inexperienced worker	3H	<ul style="list-style-type: none"> <li>• Supervision provided to inexperienced or new workers, e.g. Cutting stone for the first time or new machinery used.</li> </ul>	
2. Worker consultation	Exposure to RCS	3H	<ul style="list-style-type: none"> <li>• Ensure workers have been consulted and allowed the opportunity to express their views on the safety controls</li> <li>• Workers and Employers must be satisfied that the controls are sufficient for the task before the work commences</li> <li>• If an HSR represents employees, the consultation must involve that HSR.</li> </ul>	<b>Supervisor &amp; Workers</b> to contribute to the consultation process
3. Health monitoring	Exposure to RCS	4A	<ol style="list-style-type: none"> <li>1. Identify if any materials and work practices on-site leads to the generation of respirable crystalline silica dust (<i>Identify silica through the SDS, a label or other sources</i>)</li> <li>2. Silica containing materials supplied and brought into workplaces need to be accompanied by both the SDS and the label</li> </ol>	<b>Organisation/Supervisor</b> to ensure controls are followed



JOB TASK	HAZARDS	RISK	CONTROL MEASURES	RESPONSIBLE PERSON
			<p>3. Determine if exposure to dust containing RCS' exceeds the minimum standards (<i>exposures subject to the requirements as set out in the <b>Workplace Exposure Standards for Airborne Contaminants published by SafeWork Australia.</b></i>)</p> <p>4. Based on the exposure levels, determine if air monitoring required for workers</p> <p>5. Ensure health monitoring is provided to workers if there is a significant risk to the worker's health because of the exposure to silica.</p> <p>⚠ <i>WorkSafe Victoria recommends that employees not be exposed to levels above 0.02 mg/m3 as an eight hour TWA.</i></p> <ul style="list-style-type: none"> <li>• <b>In the case of engineered stonework</b> ensure health monitoring conducted at least every six months</li> <li>• In addition to the ongoing schedule, conduct air monitoring: <ul style="list-style-type: none"> <li>○ When there are changes to working practices</li> <li>○ Changes to the materials used or the work environment</li> <li>○ A worker health monitoring report indicates an adverse change in health status which may be related to silica exposure</li> <li>○ If an HSR requests a review of control measures</li> <li>○ When changes are made to the workplace exposure standard.</li> </ul> </li> </ul>	
4. Risk assessment	Exposure to RCS	4A	<ul style="list-style-type: none"> <li>• Ensure risk assessment completed, and the following considered: <ul style="list-style-type: none"> <li>○ How, where and for how long workers will be exposed to RCS dust</li> <li>○ The suitability of the control measures</li> <li>○ How will the effectiveness of control measures be monitored?</li> </ul> </li> </ul>	<b>Supervisor</b> to check the site & conduct risk assessment
5. Workplace dust control	Exposure to RCS	4A	<p>⚠ <b>Remove non-essential personnel from the dust-producing area</b></p> <ul style="list-style-type: none"> <li>• Regularly undertake inspections of controls</li> <li>• Use the highest level of control available</li> <li>• Use water sprays or dust suppressants whenever possible</li> <li>• Do as much work as possible under controlled conditions instead of on-site, or perform work outdoors or in well-ventilated areas</li> <li>• Separate indoor RCS processes from other work areas by enclosing the immediate area <ul style="list-style-type: none"> <li>○ Working indoors or in enclosed areas: <ul style="list-style-type: none"> <li>▪ Keep silica exposures low using extra ventilation, i.e., portable exhaust fans or other means of mechanical ventilation such as local exhaust ventilation LEV systems</li> <li>▪ Ensure airflow is not impeded by the movements of workers during work, or by the opening or closing of doors and windows. Position the ventilation to move contaminated air away from the workers' breathing zones</li> </ul> </li> </ul> </li> </ul>	<b>Supervisor and workers</b> to ensure control measures followed



JOB TASK	HAZARDS	RISK	CONTROL MEASURES	RESPONSIBLE PERSON
			<ul style="list-style-type: none"> <li>• Where there is powered mobile plant movement generating dust use water spraying methods:               <ul style="list-style-type: none"> <li>○ Isolate machine operators - must stay inside an enclosed cab with the doors and windows closed while work is in progress</li> </ul> </li> <li>• Rotate workers to reduce exposure</li> <li>• Maintain good housekeeping, including:               <ul style="list-style-type: none"> <li>○ Regular cleaning of work areas and equipment</li> <li>○ Never use compressed air for cleaning or personal decontamination</li> <li>○ Restrict housekeeping practices, such as the use of compressed air without a ventilation system and dry brushing or sweeping</li> </ul> </li> <li>• Place warning signs to identify silica dust hazard areas and required PPE/RPE.</li> </ul>	
6. Plant & equipment controls	Exposure to RCS	4A	<ul style="list-style-type: none"> <li>• Maintain, pre-inspect and operate plant and equipment as per manufacturers' instructions</li> <li>• Use remote-controlled plant and equipment where possible</li> <li>• When plant operators rely on enclosed cabs for protection against silica dust, the cab must:               <ul style="list-style-type: none"> <li>○ Be well-sealed and well-ventilated</li> <li>○ Have door jambs, window grooves, power line entries and other joints that work properly and are tightly sealed</li> <li>○ Have heating and air conditioning, so that operators can keep windows and doors closed</li> <li>○ Use an intake air filter with a minimum MERV16 rating (at least 95 per cent efficient in the 0.3-10.0 µm range)</li> <li>○ Be kept free from settled dust by regular cleaning and maintenance to prevent dust from becoming airborne inside the enclosure</li> </ul> </li> <li>• Fit tools with a Dust Class H vacuum:               <ul style="list-style-type: none"> <li>○ Turn the vacuum OFF/ON regularly to reduce dust buildup on the filter, if it is not self-cleaning</li> <li>○ Change vacuum-collection bags at least as often as the manufacturer recommends</li> <li>○ Avoid exposure to dust when changing vacuum bags and cleaning or replacing air filters</li> </ul> </li> <li>⚠ <i>When wet methods are not practicable, ensure hand tools equipped (e.g., drills, masonry saws, grinders) with a shroud and a vacuum with a high-efficiency particulate air (HEPA)-filter</i></li> <li>• Never dry cut, grind or polish materials unless the use is controlled. Use is controlled if:               <ol style="list-style-type: none"> <li>a. An integrated water delivery system supplies a continuous feed of water</li> <li>b. A Dust Class H vacuum or another suitable system that captures the dust generated is used on a commercially available on-tool extraction system</li> <li>c. Where the controls listed at (a) and (b) are not reasonably practicable, local exhaust ventilation used</li> </ol> </li> </ul> <p style="background-color: yellow;">Dust Class H vacuum means a vacuum that complies with the Class H requirements in AZ/NZS 60335.2.69 Household and similar electrical appliances—Safety—Part 2.69: Particular requirements for wet and dry vacuum cleaners, including power brush, for commercial use or its equivalent.</p>	Supervisor and workers to ensure control measures followed



JOB TASK	HAZARDS	RISK	CONTROL MEASURES	RESPONSIBLE PERSON
7. Cutting, grinding, polishing & other processes which produce RCS	Exposure to RCS	4A	<ul style="list-style-type: none"> <li>⚠ <b>ALWAYS preference wet methods over dry</b></li> <li>⚠ <b>Remove non-essential personnel from the dust-producing area and install exclusion zones and warning signage</b></li> <li>• Ensure all people that remain in the area are provided with respiratory protection</li> <li>• Cover sensitive areas (power outlets, food storages)</li> <li>• Wet the material before cutting, grinding, or polishing</li> <li>• Rinse work after the process to remove any residual dust</li> <li>• If cutting, use the minimum number of cuts on each job Use equipment that generates the least amount of dust</li> <li>• Undertake daily checks of guards, PPE, and exhaust ventilation equipment</li> <li>• PPE:               <ul style="list-style-type: none"> <li>○ Wear respiratory protective equipment (RPE) such as a half-face negative respirator or powered air-purifying respirator (PAPR):                   <ul style="list-style-type: none"> <li>▪ Respiratory protection, e.g. P1/P2 face mask minimum:                       <ul style="list-style-type: none"> <li>❖ people medically fit to wear the face mask</li> <li>❖ Issued to individuals</li> <li>❖ A competent person conducts fit testing</li> <li>❖ Complete facial seal (no facial hair)</li> <li>❖ Correct cartridge for contaminant (see SDS for flammable vapour / concrete dust)</li> </ul> </li> <li>○ Wear disposable or washable coveralls and eye protection</li> </ul> </li> <li>• Maintain a daily check of PPE and equipment.</li> </ul> </li> </ul>	Supervisor and workers to ensure control measures followed
8. Environment	Contamination of waterways & water catchment	3H	<ul style="list-style-type: none"> <li>• Dispose of RCS materials in bins provided on site</li> <li>• Dispose of empty containers/bags in approved waste containers</li> <li>• Do not wash out tools or containers where residue can enter waterways or drains.</li> </ul>	Supervisor and workers to ensure control measures followed
	Improper waste disposal	4A	<ul style="list-style-type: none"> <li>• A silica waste management system is in place</li> <li>• Place all silica waste in approved containers, e.g. slurry, disposable clothing or PPE, rags</li> <li>• All silica waste containers identified, e.g. the label must identify the substance as 'Silica dust hazard.'</li> </ul>	
	Dust	3H	<ul style="list-style-type: none"> <li>• Ensure water sprays or dust suppressants used</li> <li>• Where there is powered mobile plant movement generating dust use water spraying methods and cover loads on trucks while in transit</li> <li>• Clean up any slurry produced to prevent the slurry from drying and releasing silica dust into the air. Clean wet slurry with a shovel or a wet vacuum.</li> </ul>	



JOB TASK	HAZARDS	RISK	CONTROL MEASURES	RESPONSIBLE PERSON
9. On completion	Exposure to RCS	4A	<ul style="list-style-type: none"> <li>Respiratory protective equipment used until all contaminated disposable coveralls and clothing has been removed and bagged for disposal, and personal washing completed</li> <li>Clean up any slurry produced to prevent the slurry from drying &amp; releasing silica dust into the air</li> <li>Use damp rags to wipe down RCS-contaminated areas and equipment</li> <li>Carefully roll or fold any plastic sheeting used to cover any surface within the RCS work area, so as not to spill any collected dust or debris</li> <li>If necessary, use damp rags or a HEPA vacuum cleaner to clean any remaining visibly contaminated sections of the RCS work area</li> <li>If possible, fully dismantle tools and decontaminate using the appropriate method in a controlled environment.</li> </ul> <p><b>⚠ Never use compressed air for cleaning.</b></p>	Supervisor and workers to ensure control measures followed
	Personal contamination	4A	<ul style="list-style-type: none"> <li>Ensure contaminated clothing removed before leaving the work area (to ensure dust not transferred to other areas of the workplace).</li> <li>Use HEPA vacuum cleaner to remove apparent signs of contaminated material</li> <li>Wipe coveralls, shoes, eye protection with a damp cloth</li> <li>Wipe respirator with a damp cloth – but do not remove</li> <li>Remove coveralls, boots and any other PPE</li> <li>Remove respirator</li> <li>Wash face and hands with soapy water. Pay attention to under the fingernails</li> </ul> <p><b>⚠ Never use compressed air for personal decontamination.</b></p>	
	Equipment malfunction or damage	3H	<ul style="list-style-type: none"> <li>Maintain and test PPE/RPE following manufacturer's instructions</li> <li>Inspect all equipment and report to the supervisor if damaged</li> </ul> <p><b>⚠ Do not use if any fault/damage/missing parts. Report immediately and follow tag-out/lock-out procedures.</b></p>	
10. Emergency response	<ul style="list-style-type: none"> <li>Injury</li> <li>Fatality</li> <li>Environmental damage</li> </ul>	4A	<ul style="list-style-type: none"> <li><b>For police, fire or ambulance call '000.'</b></li> <li>Follow site emergency and evacuation procedures</li> <li>A communication system is available, e.g. a mobile phone or radio</li> <li>Check for dangers to self before helping others</li> <li>Maintain control of the area and stabilise the situation</li> <li>Apply first aid to the injured worker</li> <li>Complete an incident report.</li> </ul>	Supervisors and workers ensure controls followed



<b>OVERALL RISK RATING AFTER CONTROLS</b>		<input type="checkbox"/> 1 - Low	<input checked="" type="checkbox"/> 2 - MODERATE	<input type="checkbox"/> 3 - HIGH	<input type="checkbox"/> 4 - ACUTE	
<b>PERMITS</b>	<input type="checkbox"/> Not applicable	<input type="checkbox"/> Hot Work	<input type="checkbox"/> Confined Space	<input type="checkbox"/> Local council	<input type="checkbox"/> Excavation	<input type="checkbox"/> Lift (crane)
	<input type="checkbox"/> Working at height	<input checked="" type="checkbox"/> Restricted access	<input type="checkbox"/> Asbestos remediation	<input type="checkbox"/> Other?	<input type="checkbox"/> Other?	<input type="checkbox"/> Other?

<b>HAZARDOUS SUBSTANCES</b>	Project specific Safety data sheets, Risk assessments and register available on the Procore App.	
<b>PLANT &amp; EQUIPMENT</b>	<b>LICENCES AND QUALIFICATIONS</b>	<b>SUPERVISORY ARRANGEMENTS</b>
<input checked="" type="checkbox"/> Cement mixer <input checked="" type="checkbox"/> Power Saw <input checked="" type="checkbox"/> Hand Tools <input checked="" type="checkbox"/> Hand Held Mixer <input checked="" type="checkbox"/> Respirator	<input checked="" type="checkbox"/> Respirator "fit test" <input checked="" type="checkbox"/> White Card - CPCCWHS1001 <input checked="" type="checkbox"/> Training and sign off Hazardous Substances risk assessment register	<input checked="" type="checkbox"/> Spot Checks <input checked="" type="checkbox"/> Suitably qualified supervisors for job <input checked="" type="checkbox"/> Direct on-site supervision <input checked="" type="checkbox"/> Toolbox talks / Pre-starts <input checked="" type="checkbox"/> Project and or task specific training <input checked="" type="checkbox"/> Workers to report and add days of use to attached register whenever RPE has been used

<b>PLANT &amp; EQUIPMENT</b>	<b>HAZARDOUS SUBSTANCES</b>	<b>SUPERVISORY ARRANGEMENTS</b>
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<b>SWMS SIGN-OFF</b>	This SWMS developed in consultation and cooperation with workers and relevant organisation representatives. I have read the above SWMS, and I understand its contents. I confirm that I have the skills and training, including relevant certification, to conduct the task as described. I agree to comply with safety requirements within this SWMS, including risk control measures, safe work instructions, and PPE described.
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WORKERS' NAME	JOB ROLE / POSITION E.G. SUPERVISOR, WORKER, TRAINEE	LICENCES, COMPETENCIES & QUALIFICATIONS <i>(add as applicable)</i>			DATE	SIGNATURE
		TYPE / DESCRIPTION	CLASS	NUMBER		
		Construction Card				
		Construction Card				
		Construction Card				
		Construction Card				
		Construction Card				
		Construction Card				





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		TYPE / DESCRIPTION	CLASS	NUMBER		
		Construction Card				
		Construction Card				
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WORKERS' NAME	JOB ROLE / POSITION E.G. SUPERVISOR, WORKER, TRAINEE	LICENCES, COMPETENCIES & QUALIFICATIONS <i>(add as applicable)</i>			DATE	SIGNATURE
		TYPE / DESCRIPTION	CLASS	NUMBER		
		Construction Card				



## HIERARCHY OF CONTROLS

**MOST EFFECTIVE**



**LEAST EFFECTIVE**

## RISK MATRIX

STEP 1: DETERMINE LIKELIHOOD: What is the possibility that the effect will occur?		
	CRITERIA	DESCRIPTION
ALMOST CERTAIN	Expected in most circumstances.	The effect is a common result.
LIKELY	Will probably occur in most circumstances.	The effect is known to have occurred previously.
POSSIBLE	Could possibly occur at some time.	The effect could occur. I've heard of it happening before.
UNLIKELY	Unlikely but possible.	The effect could occur, but I have not heard of it happening before.
RARE	Highly unlikely to occur.	The effect is practically impossible.

STEP 2: DETERMINE CONSEQUENCE: What will be the expected effect?	
LEVEL OF EFFECT	EXAMPLE OF EACH LEVEL
INSIGNIFICANT	No effect – or so minor that effect is acceptable.
MINOR	Minor first aid treatment, minimal business disruption, minimal environmental effect.
MODERATE	Serious injuries, medium business interruption, medium environmental impact.
MAJOR	Extensive injuries/fatality, significant business interruption, environmental harm, prosecution.
CATASTROPHIC	Multiple permanent disability/fatalities, business failure, substantial environmental harm, prosecution/imprisonment.

STEP 3: DETERMINE THE RISK SCORE:					
EFFECT LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
ALMOST CERTAIN	2 MOD.	2 MOD.	3 HIGH	4 ACUTE	4 ACUTE
LIKELY	2 MOD.	2 MOD.	3 HIGH	4 ACUTE	4 ACUTE
POSSIBLE	1 LOW	2 MOD.	2 MOD.	3 HIGH	4 ACUTE
UNLIKELY	1 LOW	1 LOW	2 MOD.	3 HIGH	4 ACUTE
RARE	1 LOW	1 LOW	2 MOD.	2 MOD.	3 HIGH

STEP 4: RECORD RISK	
SCORE	ACTION
<b>4A: ACUTE</b>	<b><u>DO NOT PROCEED until risk level is reduced;</u></b> immediately introduce high-level controls. <i>Re-assess before proceeding.</i>
<b>3H: HIGH</b>	<i>Review before commencing work.</i> Introduce new controls and/or maintain high-level controls to lower the risk level. Controls are to be monitored frequently.
<b>2M: MOD.</b>	<i>Maintain control measures.</i> Be cautious when working. Monitor and review regularly.
<b>1L: LOW</b>	<i>Record and monitor.</i> Proceed with work. Regularly review risks.



## Record of tasks for health monitoring trigger example:

<b>Date:</b> Record of the date on which the task was done as day / month / year. If the task took multiple days, record each day as a separate entry.
<b>Task:</b> Briefly name the task and conditions. Conditions include a) if the task took more or less than four hours, and b) if the task was outdoors or enclosed.
<b>Controls used:</b> Briefly describe the isolation, engineering and work practice control measures used to prevent the release of silica dust, including but not limited to: <ul style="list-style-type: none"> <li>• Isolation; can include fabrication rooms, enclosed equipment and exclusion zones &amp; signage.</li> <li>• Engineering; can include water suppression, local exhaust ventilation, general ventilation or tunnelling ventilation.</li> <li>• Work practice; can include task rotation, safe work procedures and warning signs.</li> </ul> <p>The respiratory protective equipment (RPE) used should be identified in the RPE - MPF column.</p>
<b>RPE - MPF:</b> State the minimum protection factor (MPF) of the RPE used. See Section 7.6 of the Managing respirable crystalline silica dust exposure in construction and manufacturing of construction elements Code of Practice for more information on MPF.

This record is used to determine when a worker meets the 30 day trigger for health monitoring in the Managing respirable crystalline silica dust exposure in construction and manufacturing of construction elements Code of Practice (the Code).

Every time a worker does a task that requires the use of RPE, according to the Code, the date, task, controls and RPE should be recorded in the below table. If tasks are recorded on 30 days in a 12 month period, then the health monitoring trigger has been met. At this point, the PCBU must provide health monitoring for the worker.







## Silica Dust Controls table

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours / Shift	> 4 hours / Shift	
<b>Powertools</b>				
Stationary masonry saws (e.g., tile saws, brick saws)	Use saw equipped with integrated water delivery system that continuously feeds water to the blade; and  Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions.	N/A	N/A	N/A
	Or Use a saw with either: <ul style="list-style-type: none"> <li>○ an integrated HEPA-filtered dust collection system which incorporates a filter cleaning mechanism, or</li> <li>○ use a saw with a commercially available dust collection system where the dust collector must provide the air flow recommended by the tool manufacturer, or greater, and be rated to either M or H-Class in accordance with AS/NZS 60335.2.69.</li> </ul>	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.
Handheld power saws (any blade diameter), includes quick cut saws, concrete chasing.	Use saw equipped with integrated water delivery system that continuously feeds water to the blade; and  Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions.	Outdoor: none Indoor/ enclosed:  MPF 10	Outdoor: MPF 10 Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.
	Or			



Handheld power saws (any blade diameter), includes quick cut saws, concrete chasing	<ul style="list-style-type: none"> <li>• Use saw equipped with commercially available dust collection system; and</li> <li>• Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>• Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and be rated to either M or H-Class in accordance with AS/NZS 60335.2.69.</li> </ul>	Outdoor: MPF 10 Indoor/ enclosed:  MPF 10	Outdoor: MPF 10 Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.
Handheld power saws for cutting fibre-cement board (with blade diameter of 200mm/ 8 inches or less)	<ul style="list-style-type: none"> <li>• Use saw equipped with commercially available dust collection system; and</li> <li>• Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>• Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and be rated to either M or H-Class in accordance with AS/NZS 60335.2.69.</li> </ul>	N/A	N/A	N/A
Core saws or drills (including rig-mounted and handheld core drilling).	<ul style="list-style-type: none"> <li>• Use tool equipped with integrated water delivery system that supplies water to cutting surface; and</li> <li>• Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions.</li> </ul>	N/A	N/A	N/A
Handheld and stand- mounted drills (including impact and rotary hammer drills)	<ul style="list-style-type: none"> <li>• Use drill equipped with commercially available shroud or cowl with dust collection system; and</li> <li>• Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>• Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have either:             <ul style="list-style-type: none"> <li>○ a tool-mounted HEPA-filtered dust collector, or</li> <li>○ an on-tool capture hood connected to a dust extractor/vacuum rated to either M or H-Class in accordance with AS/NZS 60335.2.69</li> </ul> </li> </ul>	N/A	N/A	N/A





	<ul style="list-style-type: none"> <li>Use a vacuum rated to either M or H-Class in accordance with AS/NZS 60335.2.69 when cleaning holes.</li> </ul>			
Dowel drilling rigs for concrete	<ul style="list-style-type: none"> <li>Use drill equipped with commercially available shroud or cowling with dust collection system; and</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and be either:           <ul style="list-style-type: none"> <li>a tool-mounted HEPA-filtered dust collector, or</li> <li>a system incorporating on-tool capture hood connected to a dust extractor/vacuum rated to either M or H-Class in accordance with AS/NZS 60335.2.69.</li> </ul> </li> <li>Use a vacuum rated to either M or H-Class in accordance with AS/NZS 60335.2.69 when cleaning holes.</li> </ul>	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring.
Jackhammers and handheld powered chipping tools (i.e., removing mortar/concrete that has leaked from undersides of slabs and concrete beams/columns)	<ul style="list-style-type: none"> <li>Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact</li> </ul> <p>Or</p>	Outdoor: None  Indoor/ enclosed:  MPF 10	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring



	<ul style="list-style-type: none"> <li>• Use tool equipped with commercially available shroud and dust collection system; and</li> <li>• Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>• Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and be rated to either M or H-Class in accordance with AS/NZS 60335.2.69.</li> </ul>	Outdoor: None  Indoor/ enclosed:  MPF 10	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring
Handheld grinders for mortar removal (i.e., tuckpointing or removing mortar/concrete that has leaked from undersides of slabs)	<ul style="list-style-type: none"> <li>• Use grinder equipped with commercially available shroud and dust collection system; and</li> <li>• Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>• Dust collector must:             <ul style="list-style-type: none"> <li>○ provide an air flow of <math>\geq 25</math> cubic feet per minute (cfm) per inch/ ~700 litres per 25mm of wheel diameter,</li> <li>○ be rated to either M or H-Class in accordance with AS/NZS 60335.2.69, and</li> <li>○ have a cyclonic pre-separator or filter-cleaning mechanism.</li> </ul> </li> </ul>	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	Outdoor: MPF 50  Indoor/ enclosed:  MPF 50	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring.
Handheld grinders for uses other than mortar removal (e.g. concrete grinding, cutting of materials, chasing, pile)	For tasks performed outdoors only: <ul style="list-style-type: none"> <li>• use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface.</li> <li>• operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions.</li> </ul>	N/A	N/A	N/A
<b>Note:</b> Additional controls under consideration, such	<ul style="list-style-type: none"> <li>• Use grinder equipped with commercially available shroud and dust collection system; and</li> </ul>	Outdoor: None	Outdoor: None	PCBU to provide health monitoring, if worker has undertaken



the use of capture hoods, connected to a M/H class extractor	<ul style="list-style-type: none"> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and</li> <li>Dust collector must:           <ul style="list-style-type: none"> <li>provide an air flow of <math>\geq 25</math> cubic feet per minute (cfm) per inch/ <math>\sim 700</math> litres per 25mm of wheel diameter,</li> <li>be rated to either M or H-Class in accordance with AS/NZS 60335.2.69, and</li> <li>have a cyclonic pre-separator or filter-cleaning mechanism.</li> </ul> </li> </ul>	Indoor/ enclosed:  None	Indoor/ enclosed:  MPF 10	tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring.
Walk-behind milling machines and floor grinders (includes concrete polishing)	<ul style="list-style-type: none"> <li>Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface; and</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> </ul>	N/A	N/A	N/A
	<p>or</p> <ul style="list-style-type: none"> <li>Use machine equipped with dust collection system.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ▪ Dust collector must:           <ul style="list-style-type: none"> <li>provide the air flow recommended by the manufacturer, or greater, and be rated to either M or H-Class in accordance with AS/NZS 60335.2.69.</li> </ul> </li> </ul> <p>When used indoors or in an enclosed area, use a either M or H-Class in accordance with AS/NZS 60335.2.69 to remove loose dust in between passes.</p>	N/A	N/A	N/A
<b>Housekeeping</b>				
Vacuuming	As a minimum, use a H or M class vacuum cleaner (RPE is not necessary for vacuuming).	N/A	N/A	N/A
Dry sweeping	<ul style="list-style-type: none"> <li>Isolate the work area; and</li> </ul>	Outdoor: MPF 10	Outdoor: MPF 10	PCBU to provide health monitoring, if worker has undertaken



	<ul style="list-style-type: none"> <li>Substitute with wet sweeping, vacuuming or other wet methods where practicable.</li> </ul>	Indoor/ enclosed:  MPF 10	Indoor/ enclosed:  MPF 10	tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring.
Wet sweeping	Sufficient water should be added to prevent elevated levels of airborne dust.	N/A	N/A	N/A
Using compressed air or blowers	<ul style="list-style-type: none"> <li>Isolate the work area; and</li> <li>Should be substituted with wet methods where practicable.</li> </ul>	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	Outdoor: MPF 10  Indoor/ enclosed:  MPF 10	PCBU to provide health monitoring, if worker has undertaken tasks requiring RPE for 30+ days in 12 months.  See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring.
Clean-up of dried slurry	<ul style="list-style-type: none"> <li>Wet cleaning methods</li> <li>Use a H or M class vacuum cleaner.</li> </ul>	N/A	N/A	N/A
Operation of walk behind or ride on sweeping equipment.	<ul style="list-style-type: none"> <li>Use HEPA-filtered equipment, or that incorporates water scrubbing / wet cleaning methods.</li> </ul>	N/A	N/A	N/A



Low Risk Tasks				
Use of manual (i.e., non-powered) tools to score, snap or split	<ul style="list-style-type: none"> <li>• This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>• Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.</li> </ul>	N/A	N/A	N/A
Handling of dry bags	<ul style="list-style-type: none"> <li>• This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>• Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.</li> </ul>	N/A	N/A	N/A
Mixing of dry materials for less than 15 minutes per day (i.e. mixing small amounts of mortar or concrete)	<ul style="list-style-type: none"> <li>• This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>• Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.</li> <li>• Risk management should consider any other hazardous chemicals that may be in the dry materials.</li> </ul>	N/A	N/A	N/A
Removing concrete formwork	<ul style="list-style-type: none"> <li>• This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>• Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.</li> </ul>	N/A	N/A	N/A
Hand sanding and finishing of concrete	<ul style="list-style-type: none"> <li>• This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>• Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.</li> </ul>	N/A	N/A	N/A



Shot fired fixing into concrete	<ul style="list-style-type: none"> <li>This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>Manage risks so far as reasonably practicable, this includes following the manufacturer’s recommendations.</li> </ul>	N/A	N/A	N/A
Working with silica-containing products while wet (e.g., finishing and hand wiping block walls to remove excess wet mortar, pouring concrete, and grouting floor and wall tile)	<ul style="list-style-type: none"> <li>This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica.</li> <li>Manage risks so far as reasonably practicable, this includes following the manufacturer’s recommendations.</li> </ul>	N/A	N/A	N/A