

Appendix 4. Controls table

Note: The controls table does not apply to tunnelling, or construction work in a tunnel. Section 2.2 outlines the steps to follow when you are not using the 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	
1 – Power tools				
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: ○ an integrated HEPA-filtered dust collection system which incorporates a filter cleaning mechanism, or ○ 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.	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.

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
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. See Section 10.3 for guidance on what the recommendations from a doctor might be following health monitoring.
	or; - Use saw equipped with commercially available dust collection system; and - Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and - 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.	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.
Handheld power saws for cutting fibre-cement board (with blade diameter of 200mm/ 8 inches or less)	- Use saw equipped with commercially available dust collection system; and - Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and - 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.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
Walk-behind 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.	Outdoor: None Indoor/ enclosed: MPF 10	Outdoor: None 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.
Drivable 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	Outdoor: None Indoor/ enclosed: MPF 10	Outdoor: None 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.
Core saws or drills (including rig-mounted and handheld core drilling).	- Use tool equipped with integrated water delivery system that supplies water to cutting surface; and - Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
Handheld and stand-mounted drills (including impact and rotary hammer drills)	▪ Use drill equipped with commercially available shroud or cowling with dust collection system; and ▪ Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and ▪ Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have either: ○ a tool-mounted HEPA-filtered dust collector, or ○ 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 ▪ Use a vacuum rated to either M or H-Class in accordance with AS/NZS 60335.2.69 when cleaning holes.	N/A	N/A	N/A
Dowel drilling rigs for concrete	▪ Use drill equipped with commercially available shroud or cowling with dust collection system; and ▪ Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and ▪ Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and be either: ○ a tool-mounted HEPA-filtered dust collector, or ○ 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. ▪ Use a vacuum rated to either M or H-Class in accordance with AS/NZS 60335.2.69 when cleaning holes.	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.
Vehicle-mounted drilling rigs for rock and concrete	▪ Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
	or; Operate from within an enclosed cab and use water for dust suppression on drill bit	N/A	N/A	N/A
Jackhammers and handheld powered chipping tools (i.e., removing mortar/concrete that has leaked from undersides of slabs and concrete beams/columns)	Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	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.
	or; - Use tool equipped with commercially available shroud and dust collection system; and - Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and - 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.	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.

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
Handheld grinders for mortar removal (i.e., tuckpointing or removing mortar/ concrete that has leaked from undersides of slabs)	- Use grinder equipped with commercially available shroud and dust collection system; and - Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and - Dust collector must: - provide an air flow of ≥ 25 cubic feet per minute (cfm) per inch/ ~700 litres per 25mm of wheel diameter, - be rated to either M or H-Class in accordance with AS/NZS 60335.2.69, and - have a cyclonic pre-separator or filter-cleaning mechanism.	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 trimming)	For tasks performed outdoors only: - use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. - operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions.	N/A	N/A	N/A
Note: Additional controls under consideration, such the use of capture hoods, connected to a M/H class extractor.	or;			
	- Use grinder equipped with commercially available shroud and dust collection system; and - Operate and maintain tool in accordance with manufacturer's instructions to minimise dust emissions; and - Dust collector must: - provide an air flow of ≥ 25 cubic feet per minute (cfm) per inch/ ~700 litres per 25mm of wheel diameter, - be rated to either M or H-Class in accordance with AS/NZS 60335.2.69, and - have a cyclonic pre-separator or filter-cleaning mechanism.	Outdoor: None Indoor/ enclosed: None	Outdoor: None 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.

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
Walk-behind milling machines and floor grinders (includes concrete polishing)	▪ Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface; and ▪ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N/A	N/A	N/A
	or; ▪ Use machine equipped with dust collection system. ▪ Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. ▪ Dust collector must: ○ 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. 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.	N/A	N/A	N/A
2 - Mobile plant				
Small drivable milling machines (less than half-lane)	▪ Use a machine equipped with supplemental water sprays designed to suppress dust. Water must be combined with a surfactant; and ▪ Operate and maintain machine to minimise dust emissions.	N/A	N/A	N/A
Large drivable milling machines (half-lane and larger)	For cuts of any depth on asphalt only: ▪ use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust; and ▪ operate and maintain machine to minimise dust emissions.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
	For cuts of four inches in depth or less on any substrate: ▪ use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust; and ▪ operate and maintain machine to minimise dust emissions.	N/A	N/A	
	or; ▪ use a machine equipped with supplemental water spray designed to suppress dust. Water must be combined with a surfactant; and ▪ operate and maintain machine to minimise dust emissions.	N/A	N/A	N/A
Crushing machines	▪ Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g. hoppers, conveyers, sieves/sizing or vibrating components, and discharge points); and ▪ Operate and maintain machine in accordance with manufacturer's instructions to minimise dust emissions; and ▪ Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote-control station.	N/A	N/A	N/A
Shot blasting / sand blasting	Refer to the Abrasive blasting Code of Practice for guidance on selecting appropriate controls for this task			
Heavy equipment and utility vehicles for tasks such as grading and excavating but not	▪ Apply water and/or dust suppressants as necessary to minimize dust emissions	N/A	N/A	N/A
	or;			

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
including: Demolishing, abrading, or fracturing silica-containing materials (e.g. loading of demolished materials onto trucks)	▪ Operate equipment from within an enclosed cabin. ○ Fully enclosed operator cabins, such as those found on earthmoving plant have been shown to effectively control exposure to RCS when fitted with properly designed and maintained HEPA air filtration. ▪ Relevant isolation controls include: ○ enclosed cabins with windows closed at all times ○ ensuring cabins remain at positive pressure. ▪ Fitting high efficiency air filtering systems (e.g. HEPA filters) to the intake and cabin recirculation air intake of front end loaders, excavators and other machinery.	N/A	N/A	N/A
	▪ When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimise dust emissions	N/A	N/A	N/A
Heavy equipment and utility vehicles used to cut, abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping, use of hydraulic rams) or used during demolition activities involving silica-containing materials (e.g., breaking down	▪ Operate equipment from within an enclosed cabin. ○ Fully enclosed operator cabins, such as those found on earthmoving plant have been shown to effectively control exposure to RCS when fitted with properly designed and maintained HEPA air filtration. ▪ Relevant isolation controls include: ○ enclosed cabins with windows closed at all times ○ ensuring cabins remain at positive pressure. ▪ Fitting high efficiency air filtering systems (e.g. HEPA filters) to the intake and cabin recirculation air intake of front end loaders, excavators and other machinery.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
concrete slabs, beams and walls)	When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimise dust emissions	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.
3 – Housekeeping and clean-up activities				
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	- Isolate the work area; and - Substitute with wet sweeping, vacuuming or other wet methods where practicable.	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.
Wet sweeping	Sufficient water should be added to prevent elevated levels of airborne dust.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
Using compressed air or blowers	- Isolate the work area; and - Should be substituted with wet methods where practicable.	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	- Wet cleaning methods. - or - Use a H or M class vacuum cleaner.	N/A	N/A	N/A
Operation of walk behind or ride on sweeping equipment.	Use HEPA-filtered equipment, or that incorporates water scrubbing / wet cleaning methods.	N/A	N/A	N/A
4 – Other tasks with low risk				
Use of manual (i.e., non-powered) tools to score, snap or split	- This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. - Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	N/A	N/A	N/A
Use of powered shears	- This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. - Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
Handling of dry bags	▪ This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. ▪ Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	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)	▪ This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. ▪ Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations. ▪ Risk management should consider any other hazardous chemicals that may be in the dry materials.	N/A	N/A	N/A
Removing concrete formwork	▪ This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. ▪ Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	N/A	N/A	N/A
Hand sanding and finishing of concrete	▪ This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. ▪ Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	N/A	N/A	N/A
Shot fired fixing into concrete	▪ This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. ▪ Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	N/A	N/A	N/A

Equipment / task	Engineering and work practice control methods	Respiratory protective equipment, minimum protection factor (MPF)		Health monitoring
		≤ 4 hours /shift	> 4 hours /shift	
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)	▪ This activity is likely to generate exposure well below the WES when undertaken in isolation from activities that generate significant exposures to silica. ▪ Manage risks so far as reasonably practicable, this includes following the manufacturer's recommendations.	N/A	N/A	N/A