Table 1. Exposure Control Methods for Selected Construction Operations

Operation	Engineering and Work Practice Control Methods	Required Air-Purifying Respirator (Minimum Assigned Protection Factor)	
		≤ 4 hr/day	> 4 hr/day
Using Stationary Masonry Saws	Use saw equipped with integrated water delivery system. NOTE: Additional specifications: • Change water frequently to avoid silt build-up in water. • Prevent wet slurry from accumulating and drying. • Operate equipment such that no visible dust is emitted from the process. • When working indoors, provide sufficient ventilation to prevent build-up of visible airborne dust. • Ensure saw blade is not excessively worn.	None	Half-Mask (10)
Using Hand-Operated Grinders	Use water-fed grinder that continuously feeds water to the cutting surface. OR Use grinder equipped with commercially available shroud and dust collection system, operated and maintained to minimize dust emissions. Collector must be equipped with a HEPA filter and must operate at 25 cubic feet per minute	None Half-Mask (10)	Half-Mask (10) Half-Mask (10)

Table 1. Exposure Control Methods for Selected Construction Operations

Operation	Engineering and Work Practice Control Methods	Required Air-Purifying Respirator (Minimum Assigned Protection Factor)	
		≤ 4 hr/day	> 4 hr/day
	(cfm) or greater airflow per inch of blade diameter. NOTE: Additional specifications (wherever applicable): • Prevent wet slurry from accumulating and drying. • Operate equipment such that no visible dust is emitted from the process. • When working indoors, provide sufficient ventilation to prevent build-up of visible airborne dust.		
Tuckpointing	Use grinder equipped with commercially available shroud and dust collection system. Grinder must be operated flush against the working surface and work must be performed against the natural rotation of the blade (i.e., mortar debris must be directed into the exhaust). Use vacuums that provide at least 80 cfm airflow through the shroud and include filters at least 99 percent efficient. NOTE: Additional specifications: • Operate equipment such that no visible dust is emitted from the process. • When working in enclosed spaces, provide sufficient ventilation to prevent build-up of visible airborne dust.	Powered air-purifying respirator (PAPR) with loose-fitting helmet or negative pressure full facepiece (25)	Powered air-purifying respirator (PAPR) with loose-fitting helmet or negative pressure full facepiece (25)
Using Jackhammers and Other Impact Drillers	Apply a continuous stream or spray of water at the point of impact. OR Use tool-mounted shroud and HEPA-filtered dust collection system. NOTE: Additional specifications: • Operate equipment such that no visible dust is emitted from the process. • When working indoors, provide sufficient ventilation to prevent build-up of visible airborne dust.	None None	Half-Mask (10) Half-Mask (10)
Using Rotary Hammers or Drills (except overhead)	Use drill equipped with hood or cowl and HEPA-filtered dust collector. Eliminate blowing or dry sweeping drilling debris from working surface. NOTE: Additional specifications:	None	None

Table 1. Exposure Control Methods for Selected Construction Operations

Operation	Engineering and Work Practice Control Methods	Required Air-Purifying Respirator (Minimum Assigned Protection Factor)	
		≤ 4 hr/day	> 4 hr/day
	• Operate equipment such that no visible dust is emitted from the process. • When working indoors, provide sufficient ventilation to prevent build-up of visible airborne dust. • Use dust collector in accordance with manufacturer specifications.		
Operating Vehicle-Mounted Drilling Rigs for Rock	Use dust collection system around drill bit and provide a low-flow water spray to wet the dust discharged from the dust collector. NOTE: Additional specifications: • Operate equipment such that no visible dust is emitted from the process. • Half-mask respirator is to be used when working under the shroud. • Use dust collector in accordance with manufacturer specifications. For equipment operator working within an enclosed cab having the following characteristics: • Cab is air conditioned and positive pressure is maintained. • Incoming air is filtered through a prefilter and HEPA filter. • Cab is maintained as free as practicable from settled dust. • Door seals and closing mechanisms are working properly.	None None	None None
Operating Vehicle-Mounted Drilling Rigs for Concrete	Use dust collection system around drill bit and provide a low-flow water spray to wet the dust discharged from the dust collector. NOTE: Additional specifications: • Use smooth ducts and maintain duct transport velocity at 4,000 feet per minute. • Provide duct clean-out points. • Install pressure gauges across dust collection filters. • Activate LEV before drilling begins and deactivate after drill bit stops rotating. • Operate equipment such that no visible dust is emitted from the process. • Use dust collector in accordance with manufacturer specifications.	None	Half-Mask (10)

Table 1. Exposure Control Methods for Selected Construction Operations

Operation	Engineering and Work Practice Control Methods	Required Air-Purifying Respirator (Minimum Assigned Protection Factor)	
		≤ 4 hr/day	> 4 hr/day
	For equipment operator working within an enclosed cab having the following characteristics: • Cab is air conditioned and positive pressure is maintained. • Incoming air is filtered through a prefilter and HEPA filter. • Cab is maintained as free as practicable from settled dust. • Door seals and closing mechanisms are working properly.	None	None
Milling	For drivable milling machines: Use water-fed system that delivers water continuously at the cut point to suppress dust. NOTE: Additional specifications: • Operate equipment such that no visible dust is emitted from the drum box and conveyor areas.	None	Half-Mask (10)
	For walk-behind milling tools: Use water-fed equipment that continuously feeds water to the cutting surface.	None	Half-Mask (10)
	OR Use tool equipped with commercially available shroud and dust collection system. Collector must be equipped with a HEPA filter and must operate at an adequate airflow to minimize airborne visible dust. NOTE: Additional specifications: • Use dust collector in accordance with manufacturer specifications including airflow rate.	None	Half-Mask (10)
Using Handheld Masonry Saws	Use water-fed system that delivers water continuously at the cut point. Used outdoors.	None	Half-Mask (10)
	Used indoors or within partially sheltered area.	Half-Mask (10)	Half-Mask (10)
	OR		

Table 1. Exposure Control Methods for Selected Construction Operations

Operation	Engineering and Work Practice Control Methods	Required Air-Purifying Respirator (Minimum Assigned Protection Factor)	
		≤ 4 hr/day	> 4 hr/day
	Use saw equipped with local exhaust dust collection system. Used outdoors. Used indoors or within partially sheltered area. NOTE: Additional specifications: • Prevent wet slurry from accumulating and drying. • Operate equipment such that no visible dust is emitted from the process. • When working indoors, provide sufficient ventilation to prevent build-up of visible airborne dust. • Use dust collector in accordance with manufacturer specifications.	 Half-Mask (10) Full Facepiece (50)	 Half-Mask (10) Full Facepiece (50)
Using Portable Walk-Behind or Drivable Masonry Saws	Use water-fed system that delivers water continuously at the cut point. Used outdoors. Used indoors or within partially sheltered area. NOTE: Additional specifications: • Prevent wet slurry from accumulating and drying. • Operate equipment such that no visible dust is emitted from the process. • When working indoors, provide sufficient ventilation to prevent build-up of visible airborne dust.	 None Half-Mask (10)	 None Half-Mask (10)
Rock Crushing	Use wet methods or dust suppressants. OR Use local exhaust ventilation systems at feed hoppers and along conveyor belts. NOTE: Additional specifications: • Operate equipment such that no visible dust is emitted from the process. For equipment operator working within an enclosed cab having the following characteristics: • Cab is air conditioned and positive pressure is maintained;	Half-Mask (10) Half-Mask (10) None	Half-Mask (10) Half-Mask (10) None

Table 1. Exposure Control Methods for Selected Construction Operations

Operation	Engineering and Work Practice Control Methods	Required Air-Purifying Respirator (Minimum Assigned Protection Factor)	
		≤ 4 hr/day	> 4 hr/day
	• Incoming air is filtered through a prefilter and HEPA filter; • Cab is maintained as free as practicable from settled dust; and • Door seals and closing mechanisms are working properly.		
Drywall Finishing (with silica-containing material)	Use pole sander or hand sander equipped with a dust collection system. Use dust collector in accordance with manufacturer specifications. OR Use wet methods to smooth or sand the drywall seam.	None None	None None
Use of Heavy Equipment During Earthmoving	Operate equipment from within an enclosed cab having the following characteristics: • Cab is air conditioned and positive pressure is maintained; • Incoming air is filtered through a prefilter and HEPA filter; • Cab is maintained as free as practicable from settled dust; and • Door seals and closing mechanisms are working properly.	None	None

Note 1: For the purposes of complying with all other requirements of this section, the employer must presume that each employee performing an operation listed in Table 1 that requires a respirator is exposed above the PEL.

Note 2: Where an employee performs more than one operation during the course of a day, and the total duration of all operations combined is > 4 hr/day, the required air-purifying respirator for each operation is the respirator specified for > 4 hr/day. If the total duration of all operations combined is ≤ 4 hr/day, the required air-purifying respirator for each operation is the respirator specified for ≤ 4 hr/day.