

## Silica Exposure Control Plan (ECP)

Cal Pacific Systems (CPS) is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following Exposure Control Plan (ECP) is provided to eliminate or minimize occupational exposure to airborne silica in accordance with OSHA standard 29 CFR 1926.1153, "Respirable Crystalline Silica Construction." The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees.

### Employee Exposure Determination

CPS employees working with concrete or materials that may contain Silica, must use the following **Table** to comply with Cal/OSHA regulation. Even if there is a slight possibility of Silica present, implement and use the proper **Dust Suppression** and **Respirator Protection** as outlined below.

#### Major Types of Respirators

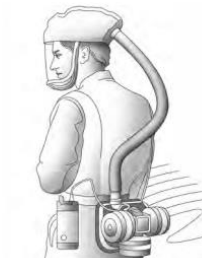
*Air-purifying respirators, which remove contaminants from the air.*



**Half mask/Dust mask**  
APF=10  
*Needs to be fit tested*



**Half mask (Elastomeric)**  
APF=10  
*Needs to be fit tested*



**Loose-Fitting Powered Air-Purifying Respirator (PAPR)**  
APF= 25

Sawing, Cutting	Dust Suppression	Required Respirator		
		Less than 4 hours	More than 4 hours	
Handheld power saws (any blade diameter)	<ul style="list-style-type: none"> <li>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> </ul>	Outdoor	None	Half Mask/Dust Mask (APF 10)
		Indoor/Enclosed Area	Half Mask/Dust Mask (APF 10)	Half Mask/Dust Mask (APF 10)
Walk-behind saws	<ul style="list-style-type: none"> <li>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> </ul>	Outdoor	None	None
		Indoor/Enclosed Area	Half Mask/Dust Mask (APF 10)	Half Mask/Dust Mask (APF 10)
Drivable saws for tasks performed outdoors only	<ul style="list-style-type: none"> <li>Use saw equipped with integrated water delivery system that continuously feeds water to the blade.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> </ul>		None	None
Drilling, Jackhammer	Dust Suppression	Required Respirator		
		Less than 4 hours	More than 4 hours	
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 cowling with dust collection system.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> <li>Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.</li> <li>Use a HEPA-filtered vacuum when cleaning holes</li> </ul>		None	None
		Outdoor	None	Half Mask/Dust Mask (APF 10)

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Jackhammers and handheld powered chipping tools	<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 style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>Use tool equipped with commercially available shroud and dust collection system.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> </ul>	Indoor/ Enclosed Area	Half Mask/Dust Mask (APF 10)	Half Mask/Dust Mask (APF 10)
<b>Grinding</b>	<b>Dust Suppression</b>	<b>Required Respirator</b>		
		<b>Less than 4 hours</b>	<b>More than 4 hours</b>	
Handheld grinders for mortar removal (i.e., tuckpointing)	<ul style="list-style-type: none"> <li>Use grinder equipped with commercially available shroud and dust collection system.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> <li>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.</li> </ul>		Half Mask/Dust Mask (APF 10)	Loose-Fitting Powered Air-Purifying Respirator (PAPR) (APF 25)
Handheld grinders for uses other than mortar removal for tasks	<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 minimize dust emissions.</li> </ul>	Outdoor	None	None
	<p style="text-align: center;"><b>OR</b></p> <ul style="list-style-type: none"> <li>Use grinder equipped with commercially available shroud and dust collection system.</li> <li>Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.</li> <li>Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.</li> </ul>	Indoor/ Enclosed Area	None	Half Mask/Dust Mask (APF 10)
<b>Heavy Equipment, Demolition</b>	<b>Dust Suppression</b>	<b>Required Respirator</b>		
		<b>Less than 4 hours</b>	<b>More than 4 hours</b>	
Heavy equipment/vehicles to abrade or fracture silica-containing materials (hoe-ramming, rock ripping) or used during demolition	<ul style="list-style-type: none"> <li>Operate equipment from within an enclosed cab.</li> <li><b>Note:</b> if employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.</li> </ul>		None	None
Heavy equipment/vehicles for grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	<ul style="list-style-type: none"> <li>Apply water and/or dust suppressants as necessary to minimize dust emissions.</li> <li><b>Note:</b> if the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.</li> </ul>		None	None

### **Addition Requirements for Special Circumstances under Table 1**

- For indoors or in enclosed areas tasks, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;
- For tasks using wet Dust Suppression methods, apply water at flow rates sufficient to minimize release of visible dust;
- For an enclosed cab or booth, make sure that it:
  - Is maintained as free as practicable from settled dust;
  - Has door seals and closing mechanisms that work properly;

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- Has gaskets and seals that are in good condition and working properly;
- Is under positive pressure maintained through continuous delivery of fresh air;
- Has intake air with a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
- Has heating and cooling capabilities.
- Where an employee performs more than one task included on Table (above) during a work shift:
  - If the total duration of all tasks combined is more than 4 hours, then follow the required respiratory protection for each task specified for more than 4 hours per shift.
  - If the total duration of all tasks combined is less than 4 hours, then follow the required respiratory protection for each task specified for less than 4 hours per shift.

### Housekeeping

CPS does not allow dry sweeping or dry brushing where such activity could contribute to employee exposure to Respirable Crystalline Silica unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

Areas assessable by non-employee bystanders and other sub-contractors must be restricted. CPS employees may restrict access by posting signs and caution tape to keep bystanders outside the working areas.

CPS does not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to Respirable Crystalline Silica unless:

- The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or
- No alternative method is feasible.

### Designated Competent Person

All employees are to report possible/potential silica exposure to the designated competent person, who will regularly monitor the jobsite. The designated Competent Person is:

Khoi Nguyen (Safety Director)  
(510) 329-5169  
Khoi.nguyen@calpacificsystems.com

### Training and Hazard Communication

CPS will include Respirable Crystalline Silica training and implement Hazard Communication Program to assure employees understand the health risks with exposure to Silica Dust. Training will be provided prior to any employee beginning work at the jobsite.

CPS will ensure that each employee has access to labels on containers of Crystalline Silica and those containers respective Safety Data Sheets (SDS's). All employees will be trained in accordance with the provisions of the CAL/OSHA Hazard Communication Standard and the Training Section of this program. This training will cover concerns relating to cancer, lung effects, immune system effects, and kidney effects PS will ensure that each employee with the potential to be exposed at or above the Action Level for Respirable Crystalline Silica can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to Respirable Crystalline Silica;
- Specific tasks in the workplace that could result in exposure to Respirable Crystalline Silica;
- Specific measures CPS has implemented to protect employees from exposure to Respirable Crystalline Silica, including engineering controls, work practices, and respirators to be used;
- The contents of the CAL/OSHA Respirable Crystalline Silica Construction Standard;
- The identity of the Competent Person designated by BALFOUR BEATTY; and
- The purpose and a description of the company's Medical Surveillance Program.

CPS will make a copy of the CAL/OSHA Respirable Crystalline Silica Construction Standard readily available without cost to any employee who requests it. Please contact the Main office of the Safety Team with any questions or concerns.