

Guide for Stone Fabricators: Exposure to Respirable Crystalline Silica

On December 19, 2024, Cal/OSHA adopted updates to their permanent standard on respirable crystalline silica (RCS) under [title 8, section 5204](#).



These updates were in response to a silicosis epidemic among quartz countertop fabrication workers. Many of these workers have developed silicosis in their 30s or 40s because of silica dust they breathed in.

The updated standard:

- Revises section 5204 with new employer requirements.
- Requires new protections for workers engaged in high-exposure trigger tasks (cutting, grinding, polishing, clean up, etc.) on artificial stone containing more 0.1% crystalline silica, or other silica containing products, including natural stone containing more than 10% crystalline silica.

The updated standard allows Cal/OSHA to quickly shut down an operation if inspectors witness an imminent hazard, such as dry cutting, dry sweeping, or lack of proper respirators.

See [Section 5204 Subsection \(g\) for a full list of imminent hazards](#).



Employers **MUST** ensure that workers who perform high-exposure trigger tasks:

- Use effective **wet methods** to prevent RCS dust exposures; dry cutting and dry sweeping are prohibited.
- Are not exposed above the action level (AL) of 25 micrograms of RCS per cubic meter of air ($\mu\text{g}/\text{m}^3$), averaged over an 8-hour shift.
- Perform the high-exposure trigger tasks within regulated areas, identified by warning signs in language(s) understood by employees.
- Use a full-face, tight-fitting, powered air-purifying respirator (PAPR), with some exceptions.
- Quickly clean up silica dust debris using wet methods or HEPA vacuuming to prevent dust from becoming airborne.
- Are offered medical testing, including a low-dose chest CT scan and a breathing test.



Photo credit courtesy of University of Oklahoma

Flowing a high volume of water over the work surface reduces RCS exposures when used together with in-tool water systems.

All employers **MUST**:

- Ensure that wet methods are effective at preventing RCS exposures.
- Train employees on silica exposure and silicosis, including risks, symptoms, and control measures.
- Conduct air monitoring for RCS on a regular basis, at least every 12 months.
- Maintain a written exposure control plan, including annual air monitoring records.
- Report any confirmed silicosis or cancer cases to the [California Department of Public Health](#) (CDPH) and [Cal/OSHA](#) within 24 hours (QR Codes at right).
- Report use of silica, a regulated carcinogen, to Cal/OSHA as required by Section 5203.




CDPH



Cal/OSHA

High-Exposure Trigger Tasks and the Respirable Crystalline Silica Standard

This document is meant to inform you, the employer, of Cal/OSHA's requirements under section 5204 to protect workers who cut, grind, polish or otherwise create dust from artificial or natural stone. To ensure compliance with section 5204, employers should consult the full standard. If necessary, employers may contact Cal/OSHA Consultation Services, a health & safety consultant, or your insurer for compliance support.

Requirement	What is it?	How to do it?	How Often?	More info
Air Monitoring	Measure the amount of silica in the air. Exposure cannot be above the action level (AL) of 25 µg/m ³ as an average over 8 hours.	Hire a private consultant, or work with your insurer or Cal/OSHA's free consultation services. For more details, scan the QR Code to view our Air Monitoring Guide for California Employers . 	<ul style="list-style-type: none"> • Repeat every 3 months if >50 µg/m³. • Repeat every 6 months if at or above 25 but at or below 50 µg/m³. • Repeat every 12 months if <AL (25 µg/m³). 	5204(d)
Regulated Areas	Designate a specific area where workers perform high-exposure trigger tasks or are exposed over the Permissible Exposure Limit.	Regulated areas have: <ul style="list-style-type: none"> • Engineering controls and personal protective equipment (PPE) to prevent RCS exposures. • Warning signs at entrances in languages(s) understood by employees. • Limited access. 	At all times.	5204(e) 5204(l)(3)
Control Exposure to Silica and Train Employees	<ul style="list-style-type: none"> • Work practice controls. • Engineering controls. • Employee training. • Respiratory protection. • Housekeeping. 	<ul style="list-style-type: none"> • Train employees about silica hazards. • Always use wet methods to suppress dust – dry cutting and dry sweeping are prohibited. • Promptly and safely clean up silica dust debris. • Use PAPRs (powered air-purifying respirators). • Implement written exposure control plan. 	<ul style="list-style-type: none"> • Train employees annually. • Ensure that engineering controls are functioning properly at all times. • Ensure that PPE is used properly during high-exposure trigger tasks. • Ensure proper clean-up of dust and debris. 	5204-(f)-(i)
Medical Surveillance	Medical examinations and testing for employees exposed to high-exposure trigger tasks.	<ul style="list-style-type: none"> • Low-dose chest CT scan, depending on exposure • Lung function test • Tuberculosis test 	Medical examinations with testing done when starting work, then, at least every three years after.	5204(j)(2)(A)