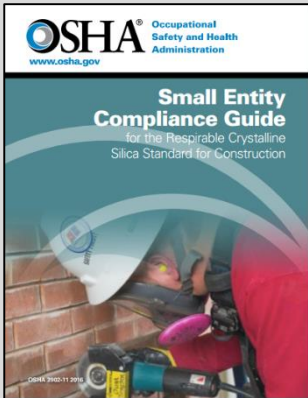


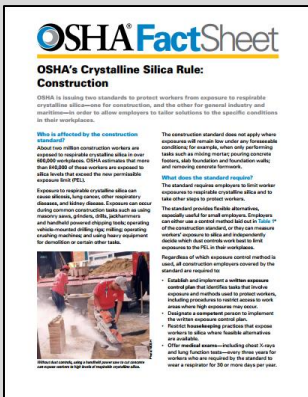
# Complying with OSHA's Respirable Crystalline Silica Standard

By: Jason Griffin, CAM Director of Education & Safety Services

## Resources



### Guide



### Fact Sheet



### FAQ

In June of 2016, OSHA passed regulation that was designed to protect workers from over exposure to respirable crystalline silica. Many questions have arisen as to how construction companies are to comply with the new standard which reduces the permissible exposure limit (PEL) to one fifth of the previous limit of 250  $\mu\text{g}/\text{m}^3$ . Since the release of the standard, many new resources have been developed to assist employers with compliance. OSHA has released a fact sheet, a frequently asked questions (FAQ) guide, and the "Small Entity Compliance Guide for the Respirable Crystalline Silica Standard for Construction."

Upon review of the compliance guide, employers may find that compliance with the new standard may not be as difficult as originally anticipated. The compliance guide breaks the standard down into plain language and outlines the options that employers have under the regulation as described below. Essentially, employers have two options, comply fully with the protective measures outlined Table 1 of the standard or develop alternative exposure control methods. Employers choosing to completely implement the control measures in Table 1 do not have to worry about doing crystalline silica exposure assessments as the Table was designed to limit exposure utilizing feasible engineering controls and respiratory protection when engineering controls alone are not sufficient to control the hazards. Table 1 identifies 18 common tasks that result in high levels of respirable crystalline silica exposure and addresses the measures necessary to reduce that exposure to below 50  $\mu\text{g}/\text{m}^3$  for the identified tasks. Employers who do not comply with Table 1 must assess employee exposure and develop measures for to prevent exposures beyond the PEL of 50  $\mu\text{g}/\text{m}^3$ .

To assist with understanding what is required under the standard, the following excerpt was taken directly from OSHA's "Small Entity Compliance Guide." When looking for the answer to question 1 below, if you are engaged in any of the tasks listed in Table 1, then the answer to this question is "Yes." If you are not engaged in any of the tasks identified in Table 1 and are only rarely engaged in tasks that generate silica dust then the standard may not apply. The fact sheet lists some tasks that would not result in exposures under the standard.

### Roadmap for Meeting the Requirements of the Respirable Crystalline Silica Standard

#### 1. Determine if the silica standard applies to your employees.

Could employees be exposed to respirable crystalline silica at or above 25  $\mu\text{g}/\text{m}^3$  as an 8-hour TWA under any foreseeable conditions, including the failure of engineering controls, while performing construction activities?

**No:** No further action is required under the silica standard.

**Yes:** Choose to comply with the standard using either the:

- Specified exposure control methods in Table 1, or
- The alternative methods of compliance

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## Supplemental Programs

Regardless of which option an employer takes under the standard there are some mandatory items that all employers must address. The chart below, which is a continuation of the excerpt from the compliance guide, shows what additional items must be addressed for compliance with the regulation.

### 2. Determine what additional requirements you must meet under the standard, based on the compliance method you are following.

Requirement	Must the Employer Follow this Requirement?	
	If Fully and Properly Implementing Table 1	If Following Alternative Exposure Controls
PEL	No	Yes
Exposure Assessment	No	Yes, when exposures are reasonably expected to be above the action level.
Methods of Compliance	No	Yes
Respiratory Protection	Yes, if respirator use is required by Table 1	Yes, if respirator use is required to reduce exposures to the PEL
Housekeeping	Yes	Yes
Written Exposure Control Plan	Yes	Yes
Medical surveillance	Yes, for employees who must wear a respirator under the silica standard for 30 or more days a year.	
Communication of Hazards	Yes	Yes
Recordkeeping	Yes, for any employees who are getting medical examinations	Yes, for exposure assessments and for any employees who are getting medical examinations

The compliance guide addresses each of the required elements above and also gives guidance on how to fully implement the control measures for each of the 18 tasks identified in Table 1.

In addition to the compliance guide, the Center for Construction Research and Training (CPWR), has also developed an online tool to assist employers with the development of a basic silica exposure control plan that they can then further develop to meet their business needs. It is also important to understand that some tasks identified in Table 1 or if developing alternative exposure control methods, that respiratory protection will be required under the standard. Once respiratory protection is required, employers must also develop and implement a respiratory protection program.



[MIOSHA Compliant Sample Respiratory Protection Program](#)

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The control measures outlined in the standard rely primarily on two methods that have been utilized to control dust for decades: wet methods and HEPA vacuuming. When implementing these methods on tools, the shrouds, covers, nozzles, and other apparatus must be designed to work specifically with the tool without interfering with that tool's safe operation. This means that they must meet the manufacturer's specifications for a given tool or they may be developed as an aftermarket attachment for a particular tool. It is important to note that the provisions provided in Table 1 imply that an employer will maintain the engineering controls identified in accordance with the manufacturer's specifications for the tool used.

In summary, employers who must comply with the respirable crystalline silica standard are required to:

1. Establish and implement a written exposure control plan that identifies tasks that involve exposure and the control methods used to protect workers from that exposure.
2. Designate a competent person to implement the exposure control plan.
3. Restrict housekeeping practices that expose workers to silica when feasible alternatives are available.
4. Offer medical exams every 3 years for workers who are required to wear a respirator for more than 30 or more days per year.
5. Evaluate the exposure control plan to determine effectiveness and update it if necessary.
6. Maintain records required by the standard of exposure and medical evaluations from the duration of an employee's employment plus 30 years.
7. Provide training on the hazards associated with exposures to respirable crystalline silica, the control methods used to control exposure, and the rules and regulations relating to occupational exposure to respirable crystalline silica.

Exposures to respirable crystalline silica can be controlled. OSHA estimates that about 2 million construction workers are exposed to respirable crystalline silica and that about 840,000 of those workers are exposed beyond the permissible exposure limit outlined in the revised standard. For additional information or training on this topic, contact Jason Griffin by phone at (248) 972-1141 or email at [griffin@cam-online.com](mailto:griffin@cam-online.com).