



## OSHA SILICA DUST STANDARDS What Pool Professionals Need to Know

The Occupational Safety and Health Administration (OSHA) has issued a final rule limiting worker exposure to respirable crystalline silica. The rule is comprised of two standards, one for Construction and one for General Industry and Maritime.

### **What are the Key Provisions?**

- Reduces the permissible exposure limit (PEL) for respirable crystalline silica to 50 micrograms per cubic meter of air, averaged over an 8-hour shift.
- Requires employers to: use engineering controls (such as water or ventilation) to limit worker exposure to the PEL; provide respirators when engineering controls cannot adequately limit exposure; limit worker access to high exposure areas; develop a written exposure control plan, offer medical exams to highly exposed workers, and train workers on silica risks and how to limit exposures.
- Provides medical exams to monitor highly exposed workers and gives them information about their lung health.
- Provides flexibility to help employers — especially small businesses — protect workers from silica exposure.

### **What is the Compliance Schedule?**

Both standards contained in the final rule take effect on June 23, 2016. Compliance is according to the schedule below:

*Construction* - June 23, 2017, one year after the effective date.

*General Industry and Maritime* - June 23, 2018, two years after the effective date.

*Hydraulic Fracturing* - June 23, 2018, two years after the effective date for all provisions except Engineering Controls, which have a compliance date of June 23, 2021.

### **Who is affected by this rule?**

All construction work, except where employee exposure will remain below 25 micrograms per cubic meter of air ( $25 \mu\text{g}/\text{m}^3$ ) as an 8-hour time-weighted average (TWA) under all foreseeable conditions. Based on conversations with the APSP Builders Council, the general belief is that one or more activities involved in pool construction will be affected.

### **When does the rule take effect?**

The effective date for Construction industries is June 23, 2017.

## **What are the options for compliance?**

The regulations offer three methods for compliance

### Option 1: Subsection (c):

Follow specific control and protection provisions of [Table 1](#).

There are 18 recommended product solutions and controls listed in the table, reflecting common silica-generating construction tasks with corresponding control methods that have been documented to be effective. The table notes when and if respiratory protection is required. The respiratory protection requirements are linked to the length of time a task is performed (4 hours or less or more than 4 hours.) OSHA only included tasks and controls for which it had sufficient data to demonstrate that workers would be protected if the controls were maintained and used properly.

This option eliminates the need for air monitoring if a contractor follows and properly implements the equipment and task-controls listed in the table.

### Option 2. Subsection (d)

Take measurements: This option is commonly referred to as Objective Data. Under this option the employer can use any combination of air monitoring data or objective data to show that a task when performed using a specific equipment/control method (with respiratory protection if needed) under specific working conditions will not expose workers above the PEL, which is 50 micrograms per cubic meter of air, averaged over an 8-hour shift.

This “objective data” can be compiled from exposure data the contractor has generated from their own air monitoring efforts or data generated by a third party such as a tool manufacturer, a raw material supplier, or a research organization. If objective data is used, it must closely resemble or have a higher exposure potential than the employer’s workplace conditions, including the processes (e.g., cutting, grinding, etc.), the type of silica-containing material being used (brick, concrete, etc.), the control methods (e.g. water, vacuum), work practices, and environmental conditions (windy, dry, etc.)

### Option 3.

Medical Monitoring

If a control method is not listed in [Table 1](#), and no objective data is available, OSHA requires that employers implement a monitoring program to show that the employees have exposure levels below the PEL of 50 micrograms/m<sup>3</sup>, when workers are performing applications with exposure over the Action Level of 25 µg/m<sup>3</sup> over an 8-hour TWA work period.

## **When is medical monitoring required?**

Monitoring is required for all workers who are required to wear a respirator for more than 30 days per year. Monitoring is also required if the Employer is not able to use Options 1 or 2 above.

## **If the task is not listed in [Table 1](#), how can I comply?**

If the task in question is not listed in [Table 1](#), then the Employer must chose form options 2 or 3.

## **Where can I get more information?**

OSHA has issues a number of summaries and guides to compliance  
For a brief overview of the impact on the Construction industry access

<https://www.osha.gov/Publications/OSHA3681.pdf>

A general FAQ is available at [https://www.osha.gov/silica/Silica\\_FAQs\\_2016-3-22.pdf](https://www.osha.gov/silica/Silica_FAQs_2016-3-22.pdf)