



Regulatory Compliance

## OSHA's Silica Standards: Don't Let Enforcement Delay Slow Your Prep

Julie Sullivan | Jul 07, 2017

### What You Need to Know

In April, OSHA announced it would delay enforcement of silica standards in construction organizations until September (originally, it was June).

Inhaling crystalline silica—even in small traces—is dangerous for construction associates, and it's highly prevalent in the workplace.

There are measures you can take in the meantime to reduce the toxic effect of crystalline silica inhalation.

Although the Occupational Safety and Health Administration has postponed enforcement of regulations for handling crystalline silica exposure within the construction industry until September, organizations should already have begun mapping out their safety plans.

This spring, OSHA announced that it would delay enforcement of protection from (and regulation of) silica exposure in construction—a rule-making effort to update the standard that goes back several years. OSHA released its final rules in 2016, which it *officially announced in 2013*.

In an *announcement to OSHA regional managers* about the decision, Deputy Assistant Secretary of Labor Dorothy Dougherty points out, “The construction standard for crystalline silica has a number of unique features warranting development of additional guidance materials.” The delay will allow additional time to train compliance officers and to further educate the manufacturing community about the dangers of silica consumption, she adds.

While businesses aren't technically obligated to adhere to OSHA's suggestions for best practices until then, the delay doesn't—nor shouldn't—negate a business from addressing the dangers of silica consumption and protecting its associates. The postponement does not affect the enforcement date for the shipping industry, which is set to take effect on June 23, 2018.

Last year, OSHA *estimated* that roughly 2 million people are exposed to crystalline silica in over 600,000 workplaces. But what's more concerning is that an estimated 840,000 of them are exposed to the substance in dangerous amounts. OSHA *expects* its 'Final Rule' on silicosis, when fully

implemented, to help save 600 lives a year and help prevent 900 new silicosis cases annually.

Silica is one of the most abundant elements on Earth. But when the substance becomes small (meaning microscopic and airborne), it can filter directly into the lungs and be hazardous to health. Unfortunately, the most common ailment that arises is silicosis, the lung disease caused by breathing in tiny bits of crystalline silica. Over time, the silica will scar the lungs, making breathing increasingly difficult.

This is a tough management challenge precisely because the respirable crystalline silica particles are microscopic. "These dust particles are very small. You cannot see them," **reports** the Center for Construction Research and Training.

Naturally, silica inhalation occurs where concrete and masonry work does—chipping, hammering, drilling, crushing and blasting of rock, concrete or sand. And while work in those environments can't be avoided, there are specific steps recommended by OSHA that organizations can take to protect their teams from exposure.

**"The construction standard for crystalline silica has a number of unique features warranting development of additional guidance materials."**

Dorothy Dougherty

Deputy Assistant Secretary of Labor for OSHA

## When does silica become dangerous?

OSHA has determined that the previous permissible exposure limit (PEL) of 10 milligrams per cubic meter (10 mg/m<sup>3</sup>) for respirable crystalline silica did not adequately protect associates exposing them to an increased risk of developing silicosis and other nonmalignant respiratory diseases, lung cancer and kidney disease. The new regulations require that PEL be reduced to 50 mg/m<sup>3</sup>.

In addition to measuring the exact amount of silica to which an individual can safely be exposed, the OSHA regulations issued in March 2016 specify that businesses must maintain records of their PEL levels as long as construction occurs. Businesses must also have employees undergo medical exams every three years.

The regulations provide a specific set of guidance for two industries: maritime and construction. Although both industries must meet the lower PEL, the guidance varies in how each industry can combat silica exposure.

"The silica standard for general industry and maritime is similar to other contaminant specific standards, focusing on the exposure rather than the task," Honeywell notes in a **safety guide**. "When reviewing silica exposure in the construction industry, OSHA identified application groups based on construction activities, tasks or equipment that are commonly recognized to create silica exposures."

## When do the new silica standards start being enforced?

Per OSHA's announcement, construction organizations will need to adhere to the new silica exposure standards beginning Sept. 23, 2017. Maritime and fracking industries are also affected by OSHA's silica regulations but have different **compliance dates**:

- General industry and maritime: June 23, 2018
- Hydraulic fracturing: June 23, 2018, except engineering controls, which have a compliance date of June 23, 2021

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