

# COMPLIANCE OVERVIEW

Provided by Huckaby & Associates

## OSHA Rule: Respirable Crystalline Silica

On March 25, 2016, the Occupational Safety and Health Administration (OSHA) issued a [final rule](#) regarding respirable crystalline silica. Under this rule, employers will be subject to new standards for protecting workers. The rule became effective on **June 23, 2016**, but employers in the construction industry have until **Sept. 23, 2017**, to comply with the rule. Employers in the maritime and general industries will have until June 23, 2018, to comply with the rule.

The rule includes standards that dramatically reduce the permissible exposure limit (PEL) for respirable crystalline silica to 50 micrograms per cubic meter of air (50  $\mu\text{g}/\text{m}^3$ ). The rule also requires employers to implement specific measures to protect workers.

This Compliance Overview presents a high-level summary of OSHA's final rule regarding respirable crystalline silica.

### LINKS AND RESOURCES

- [Final rule](#) on occupational exposure to respirable crystalline silica
- OSHA [FAQs](#) on the respirable crystalline silica final rule
- OSHA [crystalline silica webpage](#); CDC [silica webpage](#)
- Methods of sample analysis for [construction](#), [general and maritime](#) industries
- Medical surveillance guidelines for [construction](#), [general and maritime](#) industries

This Compliance Overview is not intended to be exhaustive nor should any discussion or opinions be construed as legal advice. Readers should contact legal counsel for legal advice.

### HIGHLIGHTS

#### SILICA FINAL RULE

- The final rule establishes a new permissible exposure limit for respirable crystalline silica.
- Employers must implement specific measures to protect workers.
- The intent of the rule is to reduce the risk of diseases caused by exposure to respirable crystalline silica.

#### IMPORTANT DATES

- Employers in the construction industry must comply by Sept. 23, 2017.
- Employers in the general and maritime industries must comply by June 23, 2018.



## BACKGROUND

Crystalline silica (silica) is a common mineral found in materials like sand, concrete, stone and mortar. Silica becomes hazardous when it is reduced to a dust and released into the air where it can be inhaled (called respirable silica). This commonly occurs in operations that involve cutting, sawing, drilling and crushing materials that contain silica. Operations in which sand products are used, such as glass manufacturing, metal casting and sand blasting, also tend to generate respirable silica. When silica dust particles are inhaled, they can penetrate deep into the lungs and cause disabling and sometimes fatal diseases, including silicosis, lung cancer, chronic obstructive pulmonary disorder and kidney disease.

OSHA first set PELs for respirable silica in 1971, allowing 100  $\mu\text{g}/\text{m}^3$  for general industry and 250  $\mu\text{g}/\text{m}^3$  for construction and shipyards. Since then, numerous advanced scientific studies determined that much lower levels of silica exposure can cause serious health effects. After reviewing the scientific evidence, OSHA determined that even though significant health risks remain at the 50  $\mu\text{g}/\text{m}^3$  PEL, this is the lowest level that most affected operations can reasonably achieve through the use of engineering controls and work practices.

## COVERED EMPLOYERS

In its final rule, OSHA issued two separate standards for protecting workers from exposure to respirable crystalline silica, one for the construction industry and another for the general and maritime industries.

Both standards are similar and provide comparable protections for workers, but OSHA issued them separately to account for differences in work activities, anticipated exposure levels and other conditions unique to each industry. Although exposure to respirable crystalline silica has also been documented in the agricultural sector, OSHA did not issue regulations for this industry.

## GENERAL REQUIREMENTS FOR COVERED EMPLOYERS

Under both standards, employers subject to OSHA's final rule must:

- Implement engineering and work-practice control measures;
- Establish and implement a written exposure plan;
- Restrict housekeeping practices that expose workers to silica;
- Offer medical exams to workers who are exposed to silica;
- Train workers on operations that result in silica exposure and on ways to limit exposure; and
- Keep records of workers' silica exposure and medical exams.

Employers in the construction industry must also designate a **competent person** to implement their written exposure control plans.

### *Exposure Control Requirements*

To comply with exposure control requirements, general industry and maritime employers must measure respirable silica levels in the workplace any time they may possibly be at or above 25  $\mu\text{g}/\text{m}^3$  (action level). They must also ensure that employees are not exposed to levels above 50  $\mu\text{g}/\text{m}^3$  by limiting access to areas with high levels, using dust control measures (such as wetting and ventilation), and providing workers with respirators.

Construction employers have the option of either using those same methods or following specific dust-control methods that are outlined in [Table 1](#) of OSHA’s final rule. Table 1 provides a list of common construction tasks and specific actions construction employers can take to protect workers who perform each task.

### ***Written Exposure Plan***

The final rule allows employers to tailor their written exposure control plans to their particular worksites. Minimum requirements include a description of all tasks that workers may have to do that could expose them to respirable silica and a description of the employer’s methods for protecting workers, including procedures used to restrict workers’ access to potential high-exposure areas.

Construction employers must also designate an individual who is capable of identifying existing and foreseeable silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.

### ***Housekeeping***

If housekeeping practices may expose workers to respirable silica, employers must use any feasible alternative as a means of reducing or eliminating the exposure risk.

### ***Medical Surveillance***

Employers must offer medical exams to workers who may be exposed to respirable silica levels of 25 µg/m<sup>3</sup> or more for 30 or more days per year. The exams must be offered every three years and must include chest X-rays and lung function tests.

### ***Compliance Schedule***

Each standard includes a compliance schedule for covered employers. The table below provides an overview of the relevant deadlines.

| Industry             | Deadline       | Exceptions  |
|----------------------|----------------|---|
| General and Maritime | June 23, 2018  | <ul style="list-style-type: none"> <li>Medical surveillance must be offered to workers who will be exposed to 25 µg/m<sup>3</sup> or more of crystalline silica for 30 or more days a year starting on June 23, 2020; and</li> <li>Hydraulic fracturing operations must implement engineering controls by June 23, 2021.</li> </ul> |
| Construction         | Sept. 23, 2017 | <ul style="list-style-type: none"> <li>Laboratory evaluation sample requirements begin on June 23, 2018.</li> </ul>   |