Regulatory Compliance

Occupational Exposure to Silica; Final Rule

3M Personal Safety Division | Apr 19, 2017

Occupational Exposure to Silica; Final Rule

- OSHA issued two new final rules in the *Federal Register, 81 Fed. Reg.* 16285-16890 (2016) regulating exposure to respirable crystalline silica: one for general industry and maritime and the other for the construction industry.
- According to OSHA, evidence in the record for this rulemaking indicates that workers exposed to respirable crystalline silica are at increased risk of developing silicosis and other nonmalignant respiratory diseases, lung cancer, and kidney disease.
- Effective date: June 23, 2016

General Industry and Maritime 29 CFR 1910.1053

On March 25, 2016, OSHA (Occupational Safety and Health Administration) issued two new final rules in the *Federal Register, 81 Fed. Reg.* 16285-16890 (2016) regulating exposure to respirable crystalline silica: one for general industry and maritime and the other for the construction industry. This regulation update discusses the final rule for general industry and maritime.

This summary of the OSHA standard for occupational exposure to silica in the construction industry was prepared by 3M Personal Safety Division (PSD) and emphasizes the respiratory protection aspects of the standard. It does not represent an official or legal or necessarily complete interpretation of the standard. The complete standard should be reviewed; if specific questions arise, the standard itself should be relied on rather than this summary. A copy of this standard can be obtained ***here***.

Introduction

According to OSHA, evidence in the record for this rulemaking indicates that workers exposed to respirable crystalline silica are at increased risk of developing silicosis and other nonmalignant respiratory diseases, lung cancer, and kidney disease.

Dates (29 CFR 1910.1053 (l))

Effective date: June 23, 2016.

According to OSHA the effective date is set to allow sufficient time (90 days) for employers to obtain the standard, read and understand its requirements, and undertake the necessary planning and preparation for compliance.

Start-up Dates

Depending on the provision of the standard, the date to be in compliance varies.

Standard provision	Date	Time period
All obligations (*i.e.,* exposure assessment and other ancillary provisions, engineering controls) for general industry and maritime employers (other than hydraulic fracturing operations in the oil and gas industry and an action level trigger for medical surveillance for all general industry and maritime employers)	June 23, 2018	Allows 2 years after the effective date to come into compliance
All obligations for hydraulic fracturing operations in the oil and gas industry (except obligations for engineering controls and an action level trigger for medical surveillance)	June 23, 2018	Allows 2 years after the effective date to come into compliance
Obligations for engineering controls for hydraulic fracturing operations in the oil and gas industry	June 23, 2021	Allows 5 year after the effective date to come into compliance
Obligations for an action level trigger for medical surveillance in the standard for general industry and maritime, including hydraulic fracturing operations in the oil and gas industry	June 23, 2020	Allows 4 years after the effective date to come into compliance

Start-up Dates

Scope and application (29 CFR 1910.1053 (a))

This section (*i.e.* 29 CFR 1910.1053) applies to all occupational exposures to respirable crystalline silica, except:

- Construction work (see 29 CFR 1926.1153)
- Agricultural operations covered under 29 CFR 1928
- Exposures that result for the processing of sorptive clays

This rule does not apply where employee exposures will remain below 25 µg/m3 as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

This rule does not apply if the employer complies with 29 CFR 1926.1153 and:

- The task performed is indistinguishable from a construction task listed in Table 1 in paragraph (c) of 29 CFR 1926.1153 and
- The task will not be performed regularly in the same environment and conditions.

Definitions (29 CFR 1910.1053(b))

The following is a partial list of the definitions from the respirable crystalline silica standard verbatim. Only definitions from the silica standard that are used in this document were copied.

Action level means a concentration of airborne respirable crystalline silica of 25 µg/m3, calculated as an 8-hour TWA.

Employee exposure means the exposure to airborne respirable crystalline silica that would occur if the employee were not using a respirator.

Objective data means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to respirable crystalline silica associated with a particular product or material or a specific process, task, or activity. The data must reflect

workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.

Physician or other licensed health care professional [PLHCP] means an individual whose legally permitted scope of practice (*i.e.*, license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by paragraph (i) of this section (29 CFR 1910.1053).

Regulated area means an area, demarcated by the employer, where an employee's exposure to airborne concentrations of respirable crystalline silica exceeds, or can reasonably be expected to exceed, the PEL.

Respirable crystalline silica means quartz, cristobalite, and/or tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 708:1995: Air Quality—Particle Size Fraction Definitions for Health-Related Sampling.

Specialist means an American Board Certified Specialist in Pulmonary Disease or an American Board Certified Specialist in Occupational Medicine.

View the full update *here*.