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Silica: United States Occupational Safety and Health Administration Amends Existing Standard for Occupational Exposure

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The United States Occupational Safety and Health Administration ("OSHA") published a March 25th Federal Register Notice stating it is amending its existing standards for occupational exposure to respirable in crystalline silica ("silica"). See 81 Fed. Reg. 16286.

OSHA states that it has determined that employees exposed to respirable silica at the previous permissible exposure limit ("PEL") are at significant risk of material impairment to their health.

Silica is a compound composed of the elements silicon and oxygen and exists in crystalline and amorphous states. It exists in both the natural environment and as produced during manufacturing or other processes. The substances are described as odorless solids, have no vapor pressure and create non-explosive dust when particles are suspended in the air. In crystalline silica, silicon and oxygen atoms are arranged in a 3-dimensional repeating pattern.

Crystalline silica is used in a wide variety of industry applications. OSHA states that there are over 30 major industries and operations where crystalline silica can occur and include work places such as foundries, dental laboratories, concrete products and paint and coating manufacturer and construction activities (including masonry cutting, drilling, grinding and tuckpointing, and use of heavy equipment during demolition activities involving silica-containing materials).

The final rule establishes a new PEL of 50 micrograms of respirable silica per cubic meter of air (50ug/m3) as an 8-hour time-weighted average in all industries covered by the rule. The rule also includes:

- Requirements for exposure assessment
- Methods for controlling exposure
- Respiratory protection
- Medical surveillance
- Hazard communication
- Recordkeeping

OSHA is issuing two separate standards.

One standard is for general industry and maritime. The other standard applies to construction. The rationale for this division is stated to be the need to tailor requirements to the varying circumstances found in these sectors.

A link to the Federal Register Notice containing over 600 pages of preamble can be found here:

<https://www.federalregister.gov/articles/2016/03/25/2016-04800/occupational-exposure-to-respirable-crystalline-silica>