

**Statistics**

- OSHA estimates that of the more than two million construction workers who are exposed to respirable crystalline silica, 840,000 are exposed to silica levels that exceeds the new permissible exposure limit (PEL).
- The new PEL (50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )) is dramatically lower and is considered more protective than the previous PEL.

**What is Silica and Where Does Silica Come From?**

- Silica is a natural substance found in materials such as concrete, bricks, rocks, stone, sand, and clay.
- When these materials are cut, ground, drilled or otherwise disturbed, airborne dust containing microscopic crystalline silica is created.
- When workers breathe in the dusts generated from these processes, silica is transported into the respiratory system, from the upper respiratory tract to the lungs where it settles and causes damage.

**Diseases Caused by Silica Exposure**

- **Silicosis:** Silicosis develops when the silica crystals cause scar tissue to form in the lungs. The accumulation of scar tissue results in the loss of lung function, which is characterized by signs such as shortness of breath.
- **Chronic Obstructive Pulmonary Disease (COPD):** COPD develops either due to lung damage or airway inflammation, both of which can make it hard to breathe.
- **Lung cancer:** Lung cancer often results from chronic (long-term) exposure to high levels of silica dust.

**Silica-Creating Tasks and Applicable Controls (from OSHA Table 1)<sup>1/</sup>:**

Task Description	List Of Controls That Must Be Used To Reduce Exposure	Required Respiratory Protection	
		≤4 hrs. per shift	4 hrs. per shift
Sweeping	Dry sweeping not allowed. Use sweeping compound, wet methods or vacuum.	Not specified in Table 1	Not specified in Table 1
Jack Hammering & Chipping	Use a tool with a water delivery system with continuous flow or dust collection system with shroud.	Outdoors – none Indoors – dust mask or half-face	All – dust mask or half-face respirator
Handheld Grinders <sup>2/</sup>	Use a grinder equipped with integrated water delivery system or equipped with a commercially available shroud	None	Outdoors – none Indoors – dust mask or half-face
Core Drilling	Use a tool with an integrated water delivery system that supplies water to the cutting surface.	None	None
Handheld Power Saws	Use a saw equipped with integrated water delivery system that supplies water to the blade.	Outdoors – none Indoors – dust mask or half-face	All – dust mask or half-face respirator

<sup>1/</sup>Table 1 consists of 18 specific construction tasks, reference this table for more information (29 CFR 1926.1153).

<sup>2/</sup>Handheld grinders for mortar removal have different respiratory protection requirements.

Signature of Employees in Attendance:

DATE:

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