OSHA’s Proposed Crystalline Silica Rule: Information for Small Businesses

OSHA’s proposed rule to protect workers from exposure to respirable crystalline silica will offer small employers the flexibility to tailor solutions that fit their workplaces.

The Harmful Impact of Silica

About 2.2 million workers are exposed to respirable crystalline silica: tiny particles, small enough to inhale and damage workers’ lungs. Most of these at-risk workers—about 1.85 million—are in the construction industry. Exposure occurs during construction activities when workers are cutting, grinding, crushing, or drilling into materials that contain silica like concrete, masonry, tile and rock. Workers who manufacture brick, concrete, and pottery are also often exposed, as well as workers in operations using sand products, such as foundry work and sandblasting.

Exposure to crystalline silica causes silicosis, an incurable but preventable lung disease. Exposure also causes lung cancer and other lung diseases, as well as kidney disease. OSHA expects the proposed standard to save close to 700 lives and prevent more than 1,600 cases of silicosis each year once the full effects of the rule are realized.

Small businesses and their employees in industries like dental laboratories, foundries, and construction work are directly affected by the proposed rulemaking. Roughly 1.3 million workers are exposed to silica in about 470,000 small businesses. This includes 580,000 employees in about 356,000 very small businesses of fewer than 20 workers each.

A Voice for Small Businesses

OSHA strongly encourages small businesses to participate in the rulemaking process by providing comments and taking part in public hearings. Information on submitting comments on the proposed rule and participating in public hearings can be found at www.osha.gov/silica. Your input will help OSHA develop a final rule that adequately protects workers and makes sense for small employers.
Flexible Alternatives for Businesses

OSHA is seeking input from small employers and others on the burden, costs, feasibility and practicality of the proposed rule. OSHA is proposing two different standards to protect workers from crystalline silica—one for construction and one for general industry and maritime. This will enable employers to tailor solutions to the conditions in their own workplaces.

To meet the needs of the construction industry, OSHA is proposing a flexible alternative that would allow employers to identify appropriate dust controls for a given task by referring to a table in the standard. This approach simplifies compliance and eliminates the need for measuring workers’ exposures to silica, while still ensuring adequate protection for workers.

The proposed general industry standard also offers employers significant flexibility, allowing them to limit worker exposures to the permissible exposure limit (PEL) by using any dust control or work practice method—such as water sprays, dust collectors, enclosed cabs on equipment, or prohibiting activities such as dry sweeping—that delivers the necessary protection, rather than specifying which steps an employer must take.

The exposure limits in both standards protect workers better than the antiquated exposure limits issued in 1971. The new limits, based on simple, conventional weight measures, make it easier for employers to determine if worker exposures are at or below the permissible level.

Other provisions extend the balanced approach, minimizing burdens on employers while still ensuring sufficient worker protections. For example, the rule would generally require monitoring of exposures only two to four times a year, depending on silica levels measured during initial monitoring. That frequency would be sufficient for employers to determine if their exposure controls are working and enable workers to know about their exposures.

Based on the most recent economic analysis, OSHA estimates that:

- The proposed rule would provide average net benefits of about $2.8 to $4.7 billion annually over the next 60 years;
- The average cost of compliance for an establishment in general industry would be about $2,600 per year, and for construction, about $1,000;
- The cost to a firm with fewer than 20 employees would average about $550 a year; and
- The new rule would have no discernible impact on total U.S. employment.

Additional Information

You can learn more about OSHA’s proposed rule, including opportunities to participate in development of the rule, by visiting OSHA’s Silica Rulemaking webpage at www.osha.gov/silica.