

OSHA Proposes New Silica Occupational Exposure Rule

Hinshaw Alert | 4 min read

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The U.S. Department of Labor's Occupational Safety and Health Administration ("OSHA") recently announced a newly proposed rule centered on curbing lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease in relation to crystalline silica exposure in various workplaces. ([See Dept. of Labor's Proposed Rule.](#)) To that end, Dr. David Michaels, Assistant Secretary of Labor for Occupational Safety and Health, stated, "Every year, exposed workers not only lose their ability to work, but also to breath. This proposal is expected to prevent thousands of deaths of silicosis—an incurable and progressive disease—as well as lung cancer, other respiratory diseases and kidney disease." OSHA has estimated that this newly-proposed rule would result in saving nearly 700 lives per year and prevent 1,600 new cases of silicosis annually.

Currently, exposure to airborne silica dust occurs during processes involving cutting, sawing, drilling and crushing of concrete, brick, block and other stone products in the construction industry. Exposure can also occur in operations using sand products such as in glass manufacturing, foundries, and sandblasting.

OSHA's newly-proposed rule is based on extensive review of scientific and technical evidence, consideration of current industry consensus standards, and outreach by OSHA to stakeholders at public meetings, conferences, and with employer and employee organizations. OSHA contends that the proposed rule utilizes common sense standards and is designed to give employers flexibility in meeting the new standard, and includes two separate standards—one for general industry and maritime employment and another for the construction industry.

OSHA has undertaken to implement a new rule because its current permissible exposure limits ("PELs") for crystalline silica were adopted in 1971 and have not been updated since that time. As such, the former PEL's do not adequately protect workers as they are outdated, inconsistent, and hard to understand. As it is, current PELs are based on research from the 1960s and do not reflect more recent scientific evidence or positions taken by later established safety organizations such as the National Toxicology Program, International Agency for Research on Cancer, and the National Institute for Occupational Safety and Health. For instance, all the aforementioned organizations have identified respirable crystalline silica as a human carcinogen since the research of the 1960s.

Additionally, the current PELs are difficult for many employers to understand, and are based on methods for measuring worker exposures that have not been commonly used for more than 40 years. As it is, current PELs for

construction and shipyard workers allow them to be exposed to risks that are over twice as high for workers in general industry. Accordingly, OSHA deemed it necessary to propose a new rule to bring all silica PELs into the 21st century.

To explain, respirable crystalline silica consists of very small particles at least 100 times smaller than ordinary sand one would encounter on beaches and playgrounds. It is estimated that 2.2 million workers are exposed to respirable crystalline silica in their workplaces, and there is evidence which indicates a substantial number of workers still suffer from silica-related diseases. Government data shows that about 1.85 million of these workers are in the construction industry and are exposed when workers cut, grind, crush, or drill silica-containing materials such as concrete, masonry, tile, and rock. Another 320,000 workers are exposed in general industry during operations such as brick, concrete and pottery manufacturing, as well as operations using sand products such as foundry work and hydraulic fracturing of oil and gas wells. Workers can also be exposed during sandblasting in general industry and maritime workplaces.

Given the above, the new proposed rule would require workers' exposures to be limited to a new PEL of 50 micrograms of respirable crystalline silica per cubic meter of air, averaged over an eight-hour day. The new PEL would be the same in all industries covered by the rule. The newly-proposed rule would also include provisions for measuring how much silica workers are exposed to, limiting workers' access to areas where silica exposures are high, using effective methods for exposure reduction, provision of medical exams to workers with high silica exposures, and education for workers about silica-related dangers and how to limit exposures. As it is, these provisions are similar to industry consensus standards that numerous responsible employers have been using for years.

The proposed rule also encourages reduction of silica exposure by directing implementation of widely known dust control methods—such as wetting down work operations, enclosing an operation (“process isolation”), or using a vacuum system to collect dust at the point where it is created. It is estimated by OSHA that the proposed rule would provide an average net benefit of about \$2.8 to \$4.7 billion annually over the next 60 years. It is also expected to cost about \$1,242 for the average workplace covered by the rule. OSHA also believes that the annual cost to a firm with fewer than 20 employees would be less and average about \$550 per year. As such, the newly-proposed rule (according to the government) is expected to have no discernible impact on total U.S. employment, and to significantly reduce occupational exposure to respirable silica.

For more information, please contact [Craig T. Liljestrand](#), or your regular [Hinshaw attorney](#).

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