

National Industrial Sand Association Position on the OSHA Crystalline Silica Rulemaking

The National Industrial Sand Association (NISA) supports an Occupational Safety and Health Administration (OSHA) comprehensive crystalline silica standard that includes protective measures and does not lower the existing exposure limit. To this end, we endorse: (1) an OSHA Permissible Exposure Limit (PEL) of 0.1 mg/m³ for all forms of crystalline silica (quartz, cristobalite, tridymite), and (2) establishing exposure assessment and medical surveillance for workplaces where crystalline silica exposures exceed an Action Level (AL), typically set at half the PEL in an OSHA substance-specific comprehensive standard.

What is Crystalline Silica?

Crystalline silica makes up 12% of the earth's crust and its use is ubiquitous in our society. It most commonly occurs as quartz, like you find in beach sand. It is found in almost every type of rock - igneous, metamorphic, and sedimentary. Potential overexposures to crystalline silica can occur in mining, road building and construction, and manufacturing, where crystalline silica is inherent to many of the mineral additives used either as an ingredient in products or as an integral ingredient to the manufacturing process.

Silicosis is Preventable

NISA is committed to elimination of silicosis, which is caused by prolonged, excessive exposure to respirable crystalline silica. Silicosis is an "occupational" disease that may develop after many years of overexposure in the workplace; it is not a concern for consumers or the public who receive only intermittent environmental exposures, such as at the beach, on farms, or from unpaved roads.

How to Prevent Silicosis?

Employees in the industrial sand industry carry some of the greatest potential risk for overexposure, yet our industry has done an excellent job in preventing silicosis. We take very seriously our responsibility to protect our employees from excess exposures to crystalline silica. NISA developed an Occupational Health Program (OHP) manual that addresses potential health effects, exposure assessment, and medical surveillance. Our voluntary OHP is based on control methods that have been proven effective. In fact, it is the OHP that has enabled the virtual disappearance of silicosis cases from our workplaces. The program consists of several simple protective measures that include: 1) a management commitment to implementation; 2) implementation of a prevention program; 3) routine medical surveillance; 4) periodic exposure evaluations and assessments; 5) implementation of dust control methodologies; 6) employee involvement; 7) and smoking cessation programs. The NISA OHP goes far beyond current regulatory requirements, but our members have embraced this approach because it works to prevent silicosis and it is the right thing to do for our employees.

The Basics: Exposure Assessment and Medical Surveillance are Key

Workplaces with crystalline silica exposures should follow basic precautions that include exposure assessment and, where exposures warrant, medical surveillance. We further believe that dust control efforts, when they are required due to exposures above the PEL, should embrace a hierarchy from engineering controls, through administrative controls, to personal protective equipment, allowing each workplace to assess the feasibility and appropriateness of various solutions.

The 0.1 mg/m³ PEL is Protective

We support reasonable regulations that recognize that silicosis is preventable through a series of simple and effective occupational health measures. However, we oppose lowering the 0.1 mg/m³ PEL because it has been proven protective. NISA companies have demonstrated that silicosis can be prevented when exposures are maintained consistently below the 0.1 mg/m³ PEL. Lowering the PEL is not justified. Further complicating this issue is the fact that crystalline silica cannot be measured accurately at levels significantly below the current PEL given existing analytical techniques. A lower PEL will not contribute to safer workplaces, and will have catastrophic economic impacts across a broad spectrum of industries. In fact, an analysis by the American Chemistry Council's Crystalline Silica Panel indicates that the total economic impact of halving the current PEL would amount to \$5.45 billion/year.

The Solution

There is a win-win solution that would enable OSHA to adopt a comprehensive crystalline silica standard without triggering large-scale job loss, while at the same time achieving OSHA's important objective of making significant advances in reducing silicosis. The solution we are proposing for general industry amounts to only 1% of the \$5.45 billion referenced above. OSHA should adopt a comprehensive crystalline silica rule with a 0.1 mg/m³ PEL because, when consistently followed, it protects workers from silicosis. The reason for continued risk of silicosis cases in the coming decades is that some workers continue to be exposed to respirable crystalline silica levels above the current PEL.

NISA believes that the OSHA comprehensive silica standard should mandate that general industry employers whose workers are exposed to respirable crystalline silica above the AL must conduct dust monitoring of the air their workers breathe, and must retain

records of that monitoring. In addition, the new standard should require that when workers are exposed above the AL employers must provide periodic medical surveillance that includes a chest X-ray, and must keep records of that surveillance.

We support the use of qualitative methods as a means of risk assessment. Risk of overexposure can be assessed qualitatively based on Safety Data Sheets (SDSs), prior information, likelihood of dust generation, proximity of airborne dust to workers, nature of the industrial process, and the location of workers.

Appropriate measures to assure no excess exposures also should be required in the construction industry. With these requirements in place, workers with potential crystalline silica exposure in their workplaces will be protected.

NISA and its member companies stand ready to share the knowledge we have gained through many years of responsible work with crystalline silica to help craft a rule that will effectively protect American workers from silicosis. We call on the regulated community to take seriously their responsibility to protect their workforce from excessive exposures, and we ask that the regulatory community proceed with rulemaking that includes prevention measures, like exposure assessment, medical surveillance, and dust control that are capable of eliminating silicosis without lowering the current PEL.