



Every day, Clark Seif Clark professionals are deployed across the nation helping both large and small customers resolve health & safety, industrial hygiene, environmental and indoor air quality issues.

At a moment's notice, Clark Seif Clark can send their experts anywhere they are needed. No matter if it's in response to a hurricane, wildfire, flood, tornado, or other natural disaster, Clark Seif Clark is ready to help and can respond in no time at all.

*Employment Opportunities:* CSC is currently looking to add industrial hygienists and asbestos consultants/technicians to their team at their Los Angeles and Long Beach offices.

## New Workplace Crystalline Silica Requirements Begin this Month

Silica is a part of the environment, commonly occurring in most soils. Chronic exposure to respirable crystalline silica particulates has long been known to cause restrictive lung disease and complications that can lead to cancer.

Worker exposures to airborne crystalline silica are tightly restricted by California's Occupational Safety and Health Administration (Cal/OSHA). Federal OSHA also recently passed new silica rules for maritime, general industry and construction sectors that become effective June 23, 2016.

### Generation of Airborne Silica

In construction, concrete cutting, coring, grinding, some excavation operations, crushing operations that break, pulverize and crush hardened concrete can all generate significant amounts of airborne silica.

In the maritime and general industries, airborne silica can be generated during processes involving blending or handling bulk silica containing solids, abrasive blasting operations or using

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compressed air to clean surfaces. Additionally, concrete block manufacturing operations are known to generate airborne silica.

### **The New Federal Standard**

Although the final rule was published in the March 25, 2016 Federal Register, the full standard is not yet in the OSHA Standards on their website (<https://www.osha.gov/law-regs.html>). When published, the references will be 29CFR 1910.1053 for General Industry (and Maritime) and 29CFR 1926.1153 for the Construction Industry.

In California, to be in compliance, employers should always use the most stringent of the standards (i.e. Cal/OSHA or Federal OSHA). Since a comprehensive standard, like the new Federal OSHA standard, has not been adopted in California, employers should refer to the Federal standard when assessing their crystalline silica program.

"Assisting companies and institutions with their compliance efforts to the new silica rules are Clark Seif Clark's experienced industrial hygienists," said William Jones, CIH, CSP, CPE and Vice President of Industrial Hygiene at Clark Seif Clark. "Our silica experts conduct air sampling, exhaust ventilation evaluations, make respiratory protective equipment evaluations, help write exposure control plans, compliance plans, and even assist with written employee notifications of air sampling results."

To learn more about this or other occupational, industrial hygiene, indoor air quality, environmental, health and safety testing services, please visit [www.csceng.com](http://www.csceng.com) , email [csc@csceng.com](mailto:csc@csceng.com) or call (800) 807-1118.

## **Protecting Workers from Hearing Lose Due to Excessive Noise Levels**

Worker exposure to environmental noise is sometimes difficult to avoid. However, understanding noise levels employees are exposed to is not difficult. The most significant effect of high noise levels is permanent hearing loss. Hearing loss and the degree of loss are directly related to the total energy impacting the ears. Often, the total energy at a noise source cannot be changed. In these cases, a way to keep the full force of that energy from striking the ear needs to be found.

The Occupational Safety and Health Administration (OSHA) limits noise exposure to a 90 dBA time weighted average for an 8 hour workday. However, individuals are all different in terms of whether the 90 dBA limit is enough to protect them. In fact, the National Institute of Occupational Safety and Health (NIOSH) believes that limiting exposure to 90 dBA for an 8 hour workday will still result in a 25% excess risk of a material hearing loss. The excess risk is

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**Is It Safe?**

risk of losses in the population that occur in addition to hearing loss caused by normal aging or other non-noise related causes.

So, what is too loud? If one needs to raise their voice to talk to someone who is less than 3 feet away, it is likely too loud.

Whether a worker has to raise their voice or not to communicate is not a scientific assessment. A more complete assessment can be easily done through a combination of personal exposure dose measurements, sound measurements at the source and area sound measurements.

If measurements indicate that the limit is exceeded, reducing the total energy reaching the ear can be done as follows:

- Engineer the noise out through replacement of equipment, using barriers or sound absorption, moving the noisy operation farther away from personnel or enclosing the operation
- Use administrative controls such as limiting exposure time by rotating personnel in and out of loud areas, conducting maintenance more frequently such as changing band saw blades or lubricating machinery components more often
- Use personal protective equipment (PPE) such as ear muffs or plugs.

If there are noise exposures of 85 dBA or above (whether or not PPE is worn), OSHA requires a hearing conservation program. Hearing conservation requirements are detailed and specific. A hearing conservation program requires:

- Exposure monitoring (initially and when there are changes in the work environment)
- Audiometric testing (hearing test of exposed personnel)
- Hearing protection with known (i.e. tested) effectiveness
- Formal training program
- Record keeping

Clark Seif Clark's experienced industrial hygienists can conduct noise studies, help write a customized hearing conservation program and even assist with written employee notifications of monitoring results. To learn more about this or other occupational, industrial hygiene, indoor air quality, environmental, health and safety testing services, please visit [www.csceng.com](http://www.csceng.com), email [csc@csceng.com](mailto:csc@csceng.com) or call (800) 807-1118.

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**About Clark Seif Clark:** CSC was established in 1989 to help clients in both the public and private sectors address environmental issues. CSC is a leading provider of these services with multiple offices along the western seaboard and southwest. The company

believes in science-based protocols and has a strong background in engineering making them the preferred environmental consultants to healthcare facilities, architects, schools, builders, contractors, developers and real estate professionals.