



BIE SAFETY ADVISOR

OSHA Directive Guides Silica Inspections

In June, OSHA published its compliance directive, *Inspection Procedures for the Respirable Crystalline Silica Standards*, which aims to ensure uniformity in inspection and enforcement procedures when the agency assesses respirable crystalline silica exposures in general industry, maritime and construction. The new directive provides OSHA compliance safety and health officers with guidance on how to enforce the silica standards' requirements, including:

- methods of compliance
- Table 1 - specified exposure control methods
- exposure assessments
- housekeeping practices
- respiratory protection
- recordkeeping
- Permissible Exposure Limit (PEL)
- medical surveillance
- hazard communication

The directive also aims to clarify guidance on several topics, such as alternative exposure control methods; variability in sampling; multiemployer situations; and temporary workers.

OSHA's Respirable Crystalline Silica National Emphasis Program

OSHA also revised its National Emphasis Program (NEP) to identify and reduce or eliminate worker exposures to respirable crystalline silica (RCS) in general industry, maritime and construction. The NEP targets specific industries expected to have the highest numbers of workers exposed to silica and focuses on enforcement of the general industry and maritime standard (29 CFR 1910.1053), which took effect June 23, 2018, and the construction standard (29 CFR 1926.1153), which took effect Sept. 23, 2017.

The agency will provide stakeholders with compliance assistance for 90 days before it begins programmed inspections under the directive. Employers should note several key changes in this version of the NEP:

- Revised application to the lower permissible exposure limit for respirable crystalline silica to 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) as an 8-hour time-weighted average in general industry, maritime and construction.
- Updated list of target industries that area offices will use to develop randomized lists of employers in their local jurisdictions for targeted inspections.
- All OSHA regional and area offices must comply with this NEP, but they are not required to develop corresponding regional or local emphasis programs.

Revisions to Table 1

OSHA requested information on the effectiveness of engineering and work practice control methods not currently included for the tasks and equipment listed on Table 1 of the Respirable Crystalline Silica standard for construction. The agency also requested information on tasks and equipment involving exposure to respirable crystalline silica that are not currently listed on Table 1, along with information on the effectiveness of engineering and work practice control methods in limiting worker exposure to respirable crystalline silica when performing those tasks.

OSHA is currently analyzing the submitted comments to determine if revisions to Table 1 may be appropriate.

For more information on the health effects from silica exposure, and how employers can protect workers, visit OSHA's Safety and Health Topics webpage on Crystalline Silica:
<https://www.osha.gov/dsg/topics/silicacrystalline/>



Monthly Toolbox Talk

If It's Silica, It's Not Just Dust!

Crystalline silica is a common mineral found in the earth's crust. Materials like sand, stone, concrete, and mortar contain crystalline silica. It is also used to make products such as glass, pottery, ceramics, bricks, and artificial stone.

Respirable crystalline silica – very small particles at least 100 times smaller than ordinary sand you might find on beaches and playgrounds – is created when cutting, sawing, grinding, drilling, and crushing stone, rock, concrete, brick, block, and mortar. Activities such as abrasive blasting with sand; sawing brick or concrete; sanding or drilling into concrete walls; grinding mortar; and cutting or crushing stone result in worker exposures to respirable crystalline silica dust.

Workers who inhale these very small crystalline silica particles are at increased risk of developing serious silica-related diseases, including:

- ✓ Silicosis, an incurable lung disease that can lead to disability and death;
- ✓ Lung cancer;
- ✓ Chronic obstructive pulmonary disease (COPD); and
- ✓ Kidney disease.

What can your employer do to protect against exposures to crystalline silica?

- ✓ Replace crystalline silica materials with safer substitutes, whenever possible.
- ✓ Provide engineering and/or administrative controls, where feasible, such as local exhaust ventilation, dust collection systems, wet saws, and exhaust fans.
- ✓ Establish a written exposure control plan and designate a competent person to implement the plan

Protect Yourself

- ✓ Tell your supervisor when engineering or administrative controls aren't working properly.
- ✓ Vacuum the dust from your clothes with a high-efficiency particulate (HEPA) filtered vacuum or change into clean clothing before leaving the work site. Using compressed air significantly increases your exposure to silica dust.
- ✓ Participate in training, exposure monitoring, and health screening and surveillance programs to monitor any adverse health effects caused by crystalline silica exposures.
- ✓ Be aware of the operations and job tasks creating crystalline silica exposures in your workplace and know how to protect yourself.
- ✓ Be aware of the health hazards related to exposures to crystalline silica. Smoking adds to the lung damage caused by silica exposures.
- ✓ Do not eat, drink, smoke, or apply cosmetics in areas where crystalline silica dust is present.
- ✓ Wash your hands and face outside of dusty area before eating or drinking.
- ✓ Whenever possible, do not stand in any visible cloud of dust.
- ✓ Position dust producing operations with respect to prevailing winds whenever possible.
- ✓ Remain upwind of any dust sources.

Minimize Dust by Following Good Work Practices

- ✓ Use all available work practices to control dust exposures, such as water sprays and HEPA-filtered vacuum dust collection systems.

- ✓ Wetting is the most effective method for controlling silica dust generated during sawing, jack hammering and grinding operations. Wet dust is less likely to become or remain airborne.
- ✓ Vacuum work surfaces with a HEPA filtered vacuum or by wet methods rather than blowing clean with compressed air.
- ✓ Wet sweep instead of dry sweeping

Use of Respirators

When engineering and administrative controls are not adequate to reduce exposure below permissible levels, use of approved particulate respirators may be necessary. Follow directions from your supervisor. Respirators will be selected to protect you from the potentially harmful effects of silica. However, if your dust mask is used improperly or not kept clean, the respirator itself can become a hazard.

If respirator protection is required:

- ✓ Do not alter the respirator.
- ✓ Do not wear a tight-fitting respirator with a beard or mustache that prevents a good seal between the respirator and the face.
- ✓ Safety glasses or other PPE must be worn in a manner that does not interfere with the face-to-face piece seal.
- ✓ Inspect before each use and during cleaning. Remove from service if damaged.
- ✓ Don't share
- ✓ When wearing tight-fitting respirators, perform a user seal check each time you put on the respirator to ensure that the respirator is properly seated to the face.

HOW THIS TOPIC APPLIES TO THIS JOB:

ATTENDEES: Print Name / Signature (use back if necessary)

DATE: _____

SUPERVISOR SIGNATURE:

JOBSITE / PROJECT:

