Changes to the OSHA Respirable Crystalline Silica Standard

Key dates

The Respirable Crystalline Silica Standard took effect June 23, 2016. Compliance starts:

- Construction – Sept. 23, 2017
- General Industry and Maritime – June 23, 2018 (two years after the effective date)
- Hydraulic Fracturing – June 23, 2018 (two years after the effective date for all provisions except Engineering Controls, which have a compliance date of June 23, 2021)

States with their own OSHA approved state plans have six months to adopt standards that are as effective as the OSHA standards. Be sure to check the information on your state adopted silica standards to ensure compliance with your state OSHA plan.
Who is Affected?

Employers and employees of General Industry, Maritime, Construction and Hydraulic Fracturing industries. Construction work performed on concrete or rock that creates dust from drilling, cutting and grinding materials or other operations that contain silica.

What you need to know

• Permissible exposure limit (PEL) is now 50 ug/m³ of respirable crystalline silica over an 8 hour time-weighted average (TWA).
• An “Action Level” of 25 ug/m³ has been added. The action level is when an employer has to take action to control the exposure.
• Respirable crystalline silica must be addressed in the employer’s hazard communication program.
• Develop a written exposure control plan in accordance with 29 CFR 1926.1153.
• Use engineering controls (such as water or ventilation) to limit worker exposure to the PEL.
• Provide respirators when engineering controls cannot adequately limit exposure.
• Limit worker access to high exposure areas.
• Offer medical exams to highly exposed workers and give them information about their lung health.
• Train workers on silica risks and how to limit exposures.

Why the Changes?

The previous standard was outdated and did not adequately protect workers from silica-related diseases. New ways of manufacturing products containing silica have also created the demand for updated standards to be enhanced. The change also provides flexibility to help employers, especially small businesses, protect workers from silica exposure.

Written Exposure Control Plan

• A designated competent person is defined as having the knowledge and ability necessary to implement the written exposure control plan required under the standard.
• The employer is to develop and implement a written exposure control plan for work involving exposure to respirable crystalline silica.
• The employer has to develop and implement engineering controls to reduce employee exposure to (or below) the permissible exposure limits. The employer should also limit employee access to areas where exposures are above the permissible exposure limits.
• OSHA standard 29 CFR 1926.1153 includes a task orientated exposure limit table. The table states the equipment, task, engineering control methods and time exposed during the activity into a table, referred to as Table 1. It uses an example task, exposure control method and length of shift to identify what required respiratory protection is necessary for that activity.
• Exposure plans must be reviewed at least annually for effectiveness and update if necessary.
• Plans must be available for examination and copying on request from, affected employees, their designated representatives, OSHA and state OSHA officials.
Housekeeping Practices
Avoiding certain housekeeping activities will limit workers' exposure to respirable crystalline silica.
- Do not brush or dry sweep, unless wet sweeping and HEPA-filtered vacuuming is not feasible.
- Do not clean clothing or surfaces with compressed air.
- Housekeeping is updated to incorporate the use of HEPA vacuuming, wetting dust and wet sweeping.

Medical Exams
Employers should make medical surveillance available, at no cost to the employee, for each employee who's required to use a respirator for 30 days or more per year.
- Exams have to be performed by a physician or other licensed health care professional (PLHCP).
- Initial exams have to be done within 30 days of the employee's assignment, unless the employee has had a medical exam compliant with 1926.1153 within the last three years.

Training for Workers
Employers must ensure employees receive training under the silica standard and can demonstrate knowledge and understanding of their hazards, including:
- Health hazards associated with respirable crystalline silica exposure.
- Specific tasks that could expose a worker to respirable crystalline silica.
- Specific measures the employer is implementing to protect workers from exposure.

Training must take place at the time a worker is assigned to a job involving exposure to respirable crystalline silica.

Record Keeping
Record keeping for employers with applicable operations must retain the following records:
- Air monitoring data
- Objective data
- Medical surveillance records

Personal Protective Equipment
- Respiratory protection is to be provided when controls will not limit exposures below the permissible exposure limit.
- Employers will want to review the Table I exposure limits to identify the need for respiratory protection.
- If an employer performs work needing the use of respiratory protection, a written respiratory protection program is required anytime respirators are required in the workplace in accordance with 29 CFR 1910.134.
Want to know more?

Employers should become familiar with the updated standard, Table 1 guidelines and how it applies to their industry.

**OSHA Silica Standard and Table 1:**

**OSHA Small Entity Compliance Guide, Document 3902:**
https://www.osha.gov/Publications/OSHA3902.pdf

**OSHA Silica Resources & Compliance Schedule:**
https://www.osha.gov/silica/