

# Overview of Oregon OSHA's silica rules for general industry and construction

OAR 437 Division 2, Subdivision Z-Silica



## WHAT'S THE PURPOSE OF THE SILICA RULES?

Employees exposed to respirable crystalline silica dust are at increased risk of developing silicosis and other respiratory diseases, lung cancer, and kidney disease. The silica rules were written to protect these workers from overexposure.

## WHAT INDUSTRIES ARE AFFECTED?

The rules apply to general industry and construction industry employers whose employees may be exposed to crystalline silica dust. The rules do not apply to agriculture and forest activities.

## WHAT ACTIVITIES CAN CAUSE EXPOSURES?

Exposure can occur when workers cut, saw, drill, and crush concrete, brick, ceramic tiles, rock, and stone products; and in operations that process or use large quantities of sand, such as foundries and the glass, pottery, and concrete products industries.

Exposures can also occur during construction tasks that require masonry saws, grinders, drills, jackhammers, and hand-held powered chipping tools, vehicle-mounted drilling rigs, milling machines, and heavy equipment for demolition.

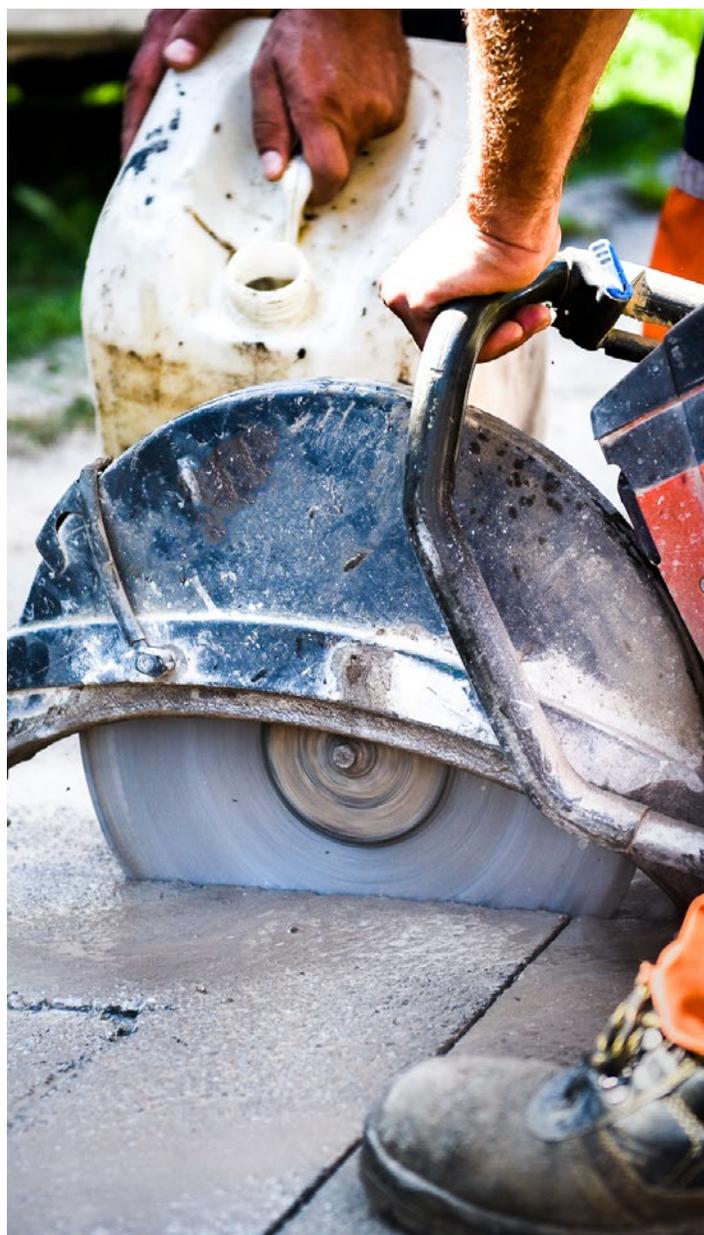
## IN GENERAL, WHAT ARE THE MAIN ELEMENTS OF THE STANDARD?

- **Exposure Control Plan** – Prepare a written exposure control plan that describes the tasks that involve exposure to respirable crystalline silica and a description of control and work practices, respiratory protection used for each task, and a description of the housekeeping measures used.
- **Workplace Exposure Assessment** – Assess the exposure of each employee who is exposed to respirable crystalline silica at or above the action level of 25 ug/m<sup>3</sup> (micrograms of silica per cubic meter of air), averaged over an eight-hour day. This does not apply to construction-industry employers if they follow the requirements in 437-002-1057, Specified exposure control methods.
- **Permissible Exposure limit** – Ensure that no employee is exposed to an airborne concentration of respirable crystalline silica that exceeds the permissible exposure limit (PEL) of 50 µg/m<sup>3</sup> (calculated as an eight-hour time-weighted average).
- **Restricted Areas** – Restrict employees' access to areas where they could be exposed above the permissible exposure limit. Construction activities require written procedures to restrict access to these areas and a competent person to ensure the procedures are followed.

- **Engineering and Work Practice Control** – You must use engineering and work practice control methods to keep employees' exposure to respirable crystalline silica at or below the PEL and to reduce exposures as much as possible.
- **Table 1 for Construction Activities** – Use specified exposure control methods, listed in Table 1, 437-002-1057, instead of conducting an exposure assessment. (Table 1 matches common construction tasks with dust control methods so that employers know what they need to do to limit worker exposures.) Table 1 and 437-002-1057 apply only to construction and construction-like activities. See fact sheet FS-66 for more details.
- **Respiratory Protection** – Provide respirators to workers when dust exposures cannot be kept at or below the PEL, when otherwise required by the silica rules, and when required by a task listed in Table 1 of 437-002-1057. Respirators must meet the requirements in this rule and the requirements in 1910.134, Respiratory Protection, including the medical evaluation requirement of that standard.
- **Housekeeping** – Prohibit dry sweeping and brushing when wet sweeping or HEPA-filtered vacuuming are feasible, and prohibit use of compressed air to clean surfaces unless the compressed air is used with a ventilation system that captures the dust.
- **Medical Surveillance** – Offer medical exams, including chest X-rays and lung function tests, every three years for workers who are exposed to silica at or above the action level for 30 or more days per year and for workers who are required to wear a respirator for 30 or more days per year.
- **Information and Training** – Ensure that each employee has access to labels on containers of crystalline silica and safety data sheets and understands the requirements in 1910.1200, hazard

communication. Employees must also know the tasks and health hazards associated with respirable crystalline silica and the methods used to protect them.

- **Recordkeeping** – Keep records of all exposure measurements and objective data used to assess employee exposures to respirable crystalline silica. Also, keep records of employees' medical exams if they are under medical surveillance.



## WHAT PROVISIONS OF THE RULES APPLY WHEN THE EMPLOYER IS USING TABLE 1 AS ALLOWED?

The standard allows construction employers to use certain specified methods in lieu of an exposure assessment. However, all other provisions of the standard apply, including a written exposure control plan, provisions for regulating employee access to certain areas, respiratory protection, medical surveillance, and employee training and information. See fact sheet FS-66 for more details.

## WHEN DO THE SILICA RULES BECOME EFFECTIVE?

The silica rules were adopted Sept. 25, 2016; all employers were required to comply with the rules beginning July 1, 2018. Provisions for medical surveillance for general industry were delayed until July 1, 2020, for employees who are exposed to silica above the action level but not the PEL.

