

The New OSHA Respirable Crystalline Silica Rule: What Should I Know?

1 What is Respirable Crystalline Silica (RCS)?



- Crystalline silica is one of the most abundant materials in the Earth's crust. It exists in three distinct forms: quartz, cristobalite, and tridymite.
- Crystalline silica occurs in the workplace when workers cut, grind, drill, saw, crush or process materials such as rock, sand, glass, stone or brick. It can also be a byproduct of sandblasting and hydraulic fracturing.

2 Why do we need new standards?



- Exposure limits for silica were determined using research that is over 50 years old, and do not take into account the most recent scientific and medical findings.
- Robust evidence indicates that current exposure limits DO NOT protect worker health. In fact, cases of kidney disease and lung cancer have been reported from workers working within acceptable exposure limits.
- OSHA believes the new standards will protect 642 deaths per year, which is projected to save employers \$7.6 billion per year, based on the reduced mortality rates.

3 How is the new rule different?



- OSHA has adopted the ISO/CEN particle size-selective criteria for respirable dust samplers and requires a cutpoint of 4 μm for all cyclones and impactors. The Mesa Labs GK 2.69, GK 4.162, BGI4L and SCC1.062 cyclones all offer a cut point of 4 μm .
- The new Permissible Exposure Limit (PEL) is 50 $\mu\text{g}/\text{m}^3$ per eight-hour Time Weighted Average (TWA) and employers must measure worker exposure if levels reach or exceed 25 $\mu\text{g}/\text{m}^3$ as an eight-hour TWA.
- Employers will implement techniques to greatly reduce worker's exposure, such as wetting down or vacuuming up dust. Employers are also required to identify high exposure areas and limit access to such areas in addition to offering respiratory protection plans and medical exams for highly exposed workers.

4 When do I need to comply?



Compliance Scheduling for Different Industries:

- Construction Industry - June 23, 2017
- General Industry and Maritime Industry - June 23, 2018
- Hydraulic Fracturing - June 23, 2018