



29 CFR1926.1153

Respirable Crystalline Silica

Federal Register - March 25, 2016

Scope

- Former Permissible Exposure Limits – PEL are difficult to understand
- $\mu\text{g}/\text{m}^3$ = Micrograms per Cubic Meter of Air or One Millionth of a gram
- Construction formula was $250 \mu\text{g}/\text{m}^3$
- Evidence shows lung cancer and silicosis occur at levels below $100 \mu\text{g}/\text{m}^3$

Definitions

- Silicosis - A lung disease caused by breathing in tiny bits of silica
- Crystalline – A basic component soil, sand, granite and minerals. Fine particulates penetrate the “Alveoli – Deep Lung”
- Respirable – particles (Silica) in the air a human is able to be breathe into the deep lung
- Symptoms – Cough, phlegm production, chronic like symptoms, wheezing and crackles

Specified Exposure Control

- Table 1
 - 18 Job tasks with dust control methods or respirator requirements
 - Indoor or outdoor performance/exposure conditions
 - Methods using water at flow rates to minimize visible dust less than 4 hours or greater than 4 hours
 - Assigned Protection Factor – APF 10, 25, or 50

Alternate Exposure Control

- Permissible exposure limit (PEL)
- Exposure assessment – Employer assesses each employee at action level
- Performance option – Employer provides 8 hour TWA exposure assessment
- Scheduled monitoring option –
 - Monitor 8 hour and if below action level employer discontinues
 - Monitor 8 hour and if above repeat in six months
- Action level 25 $\mu\text{g}/\text{m}^3$
- PEL 50 $\mu\text{g}/\text{m}^3$

Respiratory protection

- Medical exams for those wearing a respirator more than 30 days per year as per Silica standard
 - Repeated every three years
 - Chest X-ray, physical exam, pulmonary function test
 - TB
 - Medical surveillance and fit testing

Housekeeping

- Minimize air born dust
 - No dry sweeping
 - No compressor air
 - No alternative methods are feasible

Written Exposure Control Program

- The employer shall implement a written plan
- Identify a competent person

Effective Date(s)

- June 23, 2017 – Initial
- September 23, 2017 - Current

On March 25, 2016, OSHA signed a law into the Federal Register for Respirable Crystalline Silica. This health hazard, known for at least eighty years, is due to go into effect very soon.

The law, known as, 29 CFR 1926.1153, defines the reasons a new law is needed; the previous PEL's were high and difficult for employers to understand. The regulation outlines for us the damage silica causes to the human body and the preventive methods employers must adhere.

Further, for the first time, OSHA describes eighteen (18) tasks that are the most common producers of respirable silica. The tasks are broken down into four-hour segments, and what engineering controls the employer is expected to do in order to protect their employees.

In addition, the rule provides four methods of compliance for the many employers of silica producing activities. Included in this are respiratory protection requirements and the elements of the employer's written program.

The effective date of the law has been delayed from June 23, 2017 to September 23, 2017. Our program will assist employers in the many variables of the regulation, what engineering controls are applicable and the best methods to protect their employees.