

WEEKLY TOOLBOX TALK: SILICA DUST AWARENESS

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Crystalline silica is a common mineral in the earth's crust, and is found in many types of rock including sand, quartz, and granite. Silica is present in both work and non-work environments, and exposure to crystalline silica dust has long been known to cause a disease called silicosis. When you inhale crystalline silica, the lung tissue reacts by developing fibrous tissue around trapped silica particles. This condition of the lung is called *silicosis*.

Due to the extensive use of concrete and masonry products in buildings today, construction workers have a potential exposure to crystalline silica. Although our work involves using drywall products that contain very little to no silica, operations such as dumping of rock, jack hammering, abrasive blasting, sawing, drilling or demolition of concrete and masonry structures are some of the activities that could produce this exposure.

In addition, always follow safe work practices when there is possible exposure to silica dust.

- Recognize when silica dust may be generated and plan ahead to eliminate or control the dust at the source.
- Use proper respiratory protection when point of operation controls cannot keep exposures below the recommended exposure limit. Your supervisor and safety team would make you aware when respiratory protection is necessary.
- Always use dust control systems when they are available and keep them well maintained.
- Be aware that high silica concentrations can occur inside and outside enclosed areas during operations such as concrete or masonry sawing or abrasive blasting.
- Do not eat, drink, or smoke in areas where sandblasting is being done, or where silica dust is being generated.
- Wash your hands and face before eating, drinking, or smoking and vacuum (don't blow) dust from your clothing.
- Clean yourself before leaving the job site to prevent contamination of cars, homes, and other work areas.

Lungs take care of normal dust. Airborne dust and dirt is common at work sites - both at home and on the job. Fortunately, the body's respiratory system does a good of job filtering out dust and most foreign bodies. Fine particulates such as asbestos and silica, however, are so tiny they can get past our filtering system. This may cause serious lung problems over an extended period of time if protection or controls are not used. Use the appropriate personal protective equipment and safety precautions.

MAREK has a specific written control plan to eliminate silica exposure at our jobsites that refers to OSHA's Table 1 Specified Exposure Control Methods to reduce silica exposure to OSHA's permissible levels of 50 micrograms per cubic feet.

All power tools used for drilling, cutting, grinding or crushing crystalline silica- containing material such as but not limited to: brick, block, stone, mortar, and other materials must have a dust collection system with a HEPA filter to collect the dust.

In the following weeks, more Toolbox Talks will be available to address silica awareness on the use of power tools, such as hammer drilling, drywall routers, and drywall sanding.

Tags:

safety

Toolbox Talk:

Hazard Recognition