

RAP The Dangers of Silica

Many common construction work tasks generate harmful levels of crystalline silica dust if proper controls are not followed. When silica dust builds up in your lungs, you are at risk of developing a serious lung disease called *silicosis*, which can lead to death. *Silicosis* is not curable, but it is preventable. The more you know about silica dust, the better prepared you will be to adequately protect yourself.

What is Silica?

Silica is the basic component of sand and rock and include

- Concrete, concrete block, cement and mortar
- Masonry and tiles
- Brick, refractory brick
- Composite products such as Hardiplank
- Granite, sand, fill dirt, top soil
- Asphalt containing rock or stone
- Abrasive used for blasting

You may be exposed to silica when working with or around these materials.

Are you exposed to silica dust?

The cutting, breaking, crushing, drilling, grinding, or abrasive blasting of these materials without proper controls will produce fine silica dust.

If you do one of the following activities, you are at risk of breathing silica dust:

- Chipping, sawing, grinding, hammering, and drilling of rock, concrete, or masonry
- Crushing, loading, hauling, and dumping of rock
- Sawing, hammering, drilling, grinding, and chipping of concrete structures
- Demolition of concrete or masonry structures
- Power cutting or dressing stone
- Abrasive blasting and hydro blasting of concrete
- Clean-up activities such as dry sweeping or pressurized air blowing of concrete or sand dust
- Tunneling, excavation, and earth moving of soils with high silica content

*Remember, just because you can't see dust particles, doesn't mean there isn't silica in the air. Silica particles can hang around for an entire work shift without being visible to the eye.

Control Methods/Best Practices

Common methods and best practices for eliminating or reducing exposure are a combination of dust suppression, erecting barriers, and PPE. Some of the controls come in forms of continuous water spray, HEPA vacuums, dust caps, tape barriers, and full enclosure systems sometimes including negative air units. PPE could include Tyvek suits, eye and hand protection and respirators. As with any hazard, PPE should be your last line of defense in protecting yourself. Click [here](#) to learn more on how to protect your workers.

Jobsite: _____ Date: _____

Employee Name (Please Print)	Employee Signature