ASPHALT PLANTS

SILICA

Silica

What is Silica and Silicosis?

Silica, or silican dioxide (SiO2), is a mineral that occurs naturally in crystal ine or non-crystalline form. The most abundant crystalline form is α -quartz, which is the most common silicate mineral in the earth's crust. It is found in sand, sandstone, shale and granite. Drilling, crushing, cutting, chipping, breaking, eawing or polishing materials containing crystalline silica can create a large amount of respirable dust.

Silicosis is a lung disease caused by the inhalation of crystalline silica dust. Leading to inflammation and scarring in the form of nodular lesions in the upper lobes of the lungs.

Approximately 2.3 million workers are exposed to respirable crystalline silica in the workplace. This includes 2 million workers in construct on and roughly 300,000 workers in general industry, maritime and hydraulic fracturing. Such jobs include:

- Construction
- Sandblasting
- Jack hammering
- Rock drilling, cutting, chipping or polishing.
- Brick or tile cutting and sawing
- Concrete drilling, sawing, grinding and polishing.
- Turneling
- Demolition
- Asphalt milling
- Tuckpointing
- Stone countertop fabrication
- · Diatomaceous earth processing
- Pottery production
- Foundries
- · Work on linings of rotary kilns and cupola fumaces
- Mining
- Hydraulic fracturing





Using Appropriate PPE





Where are the greatest Hazards?

Though there are many moving parts on an Asphalt plant...they may not be the most DANGEROUS!



Respirable Dust

Exposure / Concentration



Tasks/ Exposure House Keeping

Loaders

Environmental

Cabs

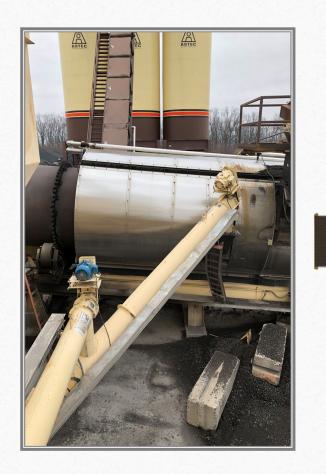


Screendeck

maintenance



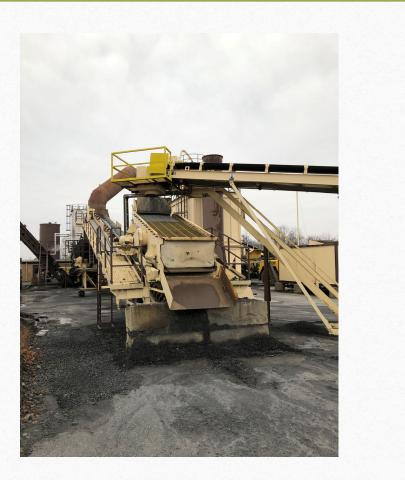
Dryer Drum Groundsperson



Rap Systems

Groundperson

Silica Shingles Compounds



Waste Dust

Cleanout Dust Truck



Processed Fines

Controlling Dust (Airborne)



Dust Screw

Water sprays



BAGHOUSE

Keep maintained



Checking worn Bags



Monitor Tasks with Exposures

IS TASK OVER ACTION LEVEL ? ENGINEERING CONTROL #1 ADMINISTRATIVE CONTROL #2 PERSONAL PROTECTIVE EQUIPMENT #3