



# Protecting Miners from Silica Dust:

## *Engineering and Administrative Controls*

Breathing silica dust while working can harm your health and increase your risk of death. Silica dust is generated during mining activities, such as cutting, sanding, drilling, crushing, grinding, sawing, scraping, jackhammering, excavating, and hauling materials that contain silica. Engineering controls, along with administrative controls, protect miners from breathing silica.

## Engineering Controls

### What are engineering controls?

Engineering controls remove or reduce dust at its source. They are the best way to protect miners from breathing silica dust.

### Examples are:

- Air ventilation
- Enclosed cabs and control booths
- Water sprays
- Tool shrouds and vacuums
- Skirtboards on conveyor belts



### Do mine operators have to use engineering controls to protect miners from silica dust?

Yes, mine operators must install engineering controls to protect miners from breathing silica dust above the permissible exposure limit.

### What must mine operators do after installing engineering controls?

Mine operators must inspect, maintain, and repair engineering controls to make sure they are working properly to protect miners.



## Contact

To learn more, visit MSHA's website at [www.MSHA.gov](http://www.MSHA.gov).

If you have questions, email [ASKMSHA@dol.gov](mailto:ASKMSHA@dol.gov).

To report a concern, contact your Mine Safety and Health Administration (MSHA) District Office.



# Administrative Controls

## What are administrative controls?

Administrative controls include changes to work practices or behavior that can help protect miners from breathing silica dust after engineering controls are installed.

### Examples are:

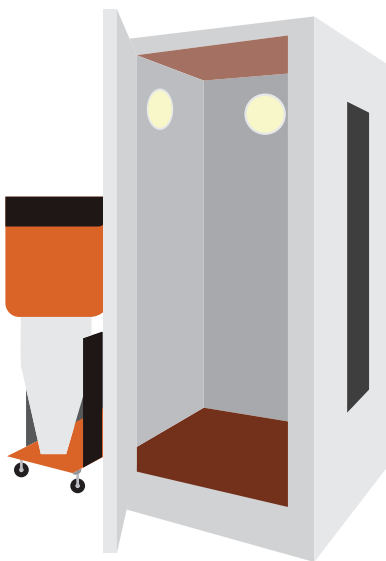
- Keeping work areas clean
- Working in an area away from a dust source
- Walking around the outside of a dusty area
- Safely cleaning dust from work clothes

## Can mine operators use administrative controls to protect miners from silica dust?

Yes, mine operators may use administrative controls along with engineering controls to protect miners from breathing silica dust above the permissible exposure limit.

## Can mine operators rotate miners rather than install engineering controls to limit exposure to silica dust?

No, mine operators must use engineering controls and other administrative controls to protect miners from breathing silica dust above the permissible exposure limit. Rotating miners to reduce exposure to silica dust is not permitted since rotation exposes a greater number of miners to silica dust.



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