



Prevent Exposure: Silica Dust in Enclosed Cabs

Silica is in many materials common on construction sites, such as sand, concrete, and rock. When heavy construction equipment disturbs these materials during, for example, demolition and paving, dust containing crystalline silica can be released into the air. Workers who breathe this dust are at risk of developing serious, sometimes fatal lung diseases such as silicosis, lung cancer, and chronic obstructive pulmonary disease (COPD). It has also been linked to illnesses such as kidney disease.

Grace's Story

Grace's work involves moving silica-containing materials at above ground mines and construction sites. Although she typically works in an enclosed cab, dust can get into the cab through, for example, a broken door seal or when she opens the window to communicate with other workers. Grace started wheezing, being short of breath, and feeling tired after even short periods of work. She went to her doctor and described her work history. Grace's doctor x-rayed her chest and had the x-ray read by a certified Class B reader because of Grace's possible exposure to silica. The results helped in diagnosing Grace's lung disease.

- ✘ What caused Grace's illness?
- ✘ How could this illness have been prevented?
- ✘ Have you ever been exposed to silica dust, or do you know someone who has? If so, what happened?

Remember This

- Keep the cab as free as possible from settled dust.
- Make sure the cab is equipped with a properly working air filtration system with a filter efficiency rating of 95% or higher (e.g., MERV-16). Inspect the filter and notify your supervisor if it needs to be cleaned or replaced.
- Inspect the cab for holes, gaps, cracks, and broken seals around doors, windows, joints, power line entries, and controls. Make sure door seals, closing mechanisms, and gaskets are working properly. Notify your supervisor if repairs or replacements are needed.
- Check the cabin pressure gauge throughout the day to make sure positive air pressure is maintained through the continuous delivery of fresh air. The pressure in the cabin should be between 0.05 - 0.25 inches of water (in.w.g. or in.H₂O).
- Make sure the cab has heat and air conditioning.
- If you are working outside the enclosed cab, water, dust suppressants, or both can reduce exposure to silica and other dust.
- Avoid eating, drinking, and smoking in areas where there is silica dust. A good practice is to first leave the dusty area and wash your hands and face.
- Avoid bringing dust home. Use a vacuum with a HEPA filter to clean the dust from clothing before leaving the worksite. Do not brush or blow dust off.
- To learn more, visit www.silica-safe.org.

How can we stay safe today?

What will we do at the worksite to control and prevent exposure to silica dust?

1. _____
2. _____

OSHA Regulations: 1926.1153 Respirable crystalline silica; MSHA 30 CFR Parts 70, 71, 72, 75, and 90



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- ✘ Keep the cab free of settled dust. Inspect the filter and cab daily. Notify your supervisor if the filter needs to be cleaned or replaced, and if seals, closing mechanisms, or gaskets need to be repaired or replaced.
- ✘ Check the pressure in the cab throughout the day to make sure positive air pressure is maintained.
- ✘ Use a vacuum with a HEPA filter to clean the dust from your clothes and change into clean clothing before leaving the worksite. Avoid bringing dust home!