

SUMMARY

WHAT IS THE DANGER?

Abrasive blasters using silica sand as an abrasive may contract a dust disease of the lung called silicosis. Abrasive blasters using other media to clean/prepare other silica-containing substrates are also at risk. The common silicosis symptoms may be virtually unnoticeable in the beginning. Over time, silica can damage the lung tissue. This damage can cause permanent disability, secondary disease and death. Silica can also cause COPD/Emphysema, kidney disease, lung cancer, connective tissue disease, and activate tuberculosis.

WORKSITE CONDITIONS WHERE SILICOSIS MAY BE A PROBLEM:

- ⇒ **Failure to substitute non-silica abrasives**
- ⇒ **Inadequate engineering controls (such as ventilation) and work practices**
- ⇒ **Inadequate respiratory protection for workers**
- ⇒ **Inadequate medical surveillance of workers exposed to respirable silica**
- ⇒ **No written and enforced health and safety program and/or exposure control plan**

CAN SILICOSIS BE PREVENTED?

Yes. Technology for protecting you and your coworkers has been on the market for several years. Owners discover unexpected benefits from changing to non-silica abrasive substitutes and establishing engineering and other work practice controls are surprised to find out that the long-range costs are affordable.

This manual has been developed to assist employers performing abrasive blasting with sand and/or on substrates containing silica to comply with the revised OSHA silica standard. The manual will assist you, the abrasive blaster and abrasive blasting company owners to learn about the hazards of silica inhalation and how to be protected from developing silicosis and other silica exposure-related diseases. We believe that knowing the risks and having the resources to initiate safe work practices will lead owners and workers to develop a safe and healthy workplace.

WHY ARE THERE SO MANY REGULATIONS?

This manual does not add new regulations but rather explains OSHA's regulations. The final OSHA rule (adopted in full by MIOSHA) on Occupational Exposure to Respirable Crystalline Silica established two new standards, 29 CFR 1926.1153 for construction, and 29 CFR 1910.1053 for general industry and maritime. Other federal, state and local agencies have regulations dealing with the safe use, handling and storage of silica sand, including hazardous waste disposal, waste water treatment, and air pollution.