

# **PREVENTING SILICOSIS ABRASIVE BLASTING TRAINING**

## **Agenda**

8:00 A.M.	Introduction and Overview
8:30	“20 Questions” Exercise
8:45	“Plain Talk About a Serious Problem - Silicosis” (Film)
9:05	Health Hazards of Abrasive Blasting
10:00	--- Break ---
10:15	Silica Substitutes - HANDS ON DEMO
11:15	Cutting Airborne Silica
12:00	--- Lunch ---
12:35	Air Monitoring - HANDS ON DEMO
1:15	--- Stretch Break ---
1:20	Respiratory Protection and PPE - HANDS ON DEMO
2:30	--- Break ---
2:40	Getting Organized
2:55	Safety Training
3:15	Cleaning Up
3:30	--- Stretch Break ---
3:35	Medical Monitoring
3:50	Keeping Your Family Safe
4:00	Questions and Answers
4:15	Course Evaluation

# Purpose

This manual was produced by Michigan State University's Department of Medicine, Occupational and Environmental Medicine Division, to deal with the hazards of silica and silicosis in abrasive blasting shops in Michigan. The manual was developed and written by Aaron Ells, Debra Chester and Ken Rosenman, M.D. Assistance and review were also made by Mary Jo Reilly at Michigan State University, Mike McCawley of NIOSH and Greg Grubb of MIOSHA.

Silicosis is a lung disease which is associated with the inhalation of silica dust. It is a progressively debilitating disease that can develop after you breathe in microscopic, crystalline silica particles. There is no cure for silicosis. However, it is completely preventable.

Michigan's surveillance efforts have confirmed 749 cases of silicosis from 1985-1998. Each year approximately 50-70 new cases are confirmed; in 1996, 64 cases were identified. More than 250 American workers die with silicosis every year. More than one million U.S. workers are exposed to crystalline silica.

Abrasive blasting with sand is known to be one of the most hazardous work practices that involves the use of silica. Reports from NIOSH (CDC, 1992) and in the medical literature document the continuing hazards of sandblasting. Workers who perform sandblasting are at risk not only of developing chronic silicosis but also acute and accelerated silicosis.

Forty years ago, European countries took steps to ban the use of silica for abrasive blasting. Despite the number of silica-free substitute abrasive medias, silica is still the most common abrasive used in sandblasting in the United States.

This training manual has been developed for the purpose of training abrasive blasters on how to do abrasive blasting safely. By providing employees and employers with information regarding the hazards of silica and possible control measures, and with the knowledge necessary to implement protective measures, we believe this training can result in removing barriers to successful prevention of silicosis.

This worker's training manual may be reproduced and distributed for non-profit educational purposes. The format for this manual was modeled from the publication: Prevent Lead Poisoning Before it Poisons Your Business, produced by the California Occupational Health Program to deal with the hazards of lead in radiator shops.

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