

DIRECTIONS FOR INSTRUCTORS

This Instructor's manual was produced by the authors of "Abrasive Blasting Training: PREVENTING SILICOSIS." It was developed to complement the Worker's training manual, give instruction on training abrasive blasting workers, and provide audio/visual materials including Internet-based videos and PowerPoint® presentations.

The materials developed were originally used for training abrasive blasting companies in the State of Michigan. At each training session, abrasive blasting experts were invited to speak about the benefits of switching to non-silica abrasives. The experts also spoke and passed out samples and literature on different medias, environmental control technologies including blasting rooms, glove boxes and dust control equipment. An expert from the field of health and safety was also invited. This expert brought examples of respiratory protection and air monitoring equipment.

The intent of the training is to motivate abrasive blasting (sandblasting) shops to substitute non-silica abrasive medias. Despite the number of non-silica abrasives, silica sand is still commonly used as an abrasive in sandblasting in the United States.

Blasting with silica sand is known to be one of the most hazardous work practices that involves silica. Crystalline silica, when inhaled, causes silicosis, a chronic, progressive lung disease that can cause death. Breathing in silica also increases the risk of getting lung cancer, emphysema, kidney disease, tuberculosis and rheumatoid arthritis.

The Instructor's manual follows the outline of the Worker's training manual. Chapters are presented in the same order as the Worker's manual and audio/visual presentations should follow along with the material in the book. At the beginning of each chapter there are general comments and instructions for instructors.

The manual begins with "Silica Substitutes." This chapter is the foundation for the day's training activities. If alternative medias are used, the risk of developing silicosis is eliminated unless blasting is done on a surface that contains silica.