

The Silica/Milling Machine Partnership

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Solving the Silica Challenge

What happens when a team of labor, industry, and government professionals work together to create a better workplace – without litigation or red tape? Good things!

Objectives

The silica/milling machine partnership is a unique opportunity to accomplish something everyone wants—worker health and safety—in a fraction of the time and at a fraction of the cost of traditional approaches.

Specifically, the partnership aims to determine (1) how much crystalline silica exposure crews incur in milling operations, and (2) to what degree the exposure can be suppressed through engineering controls and best operational practices.

How the Partnership Works

The partnership was formed with National Asphalt Pavement Association as project organizer. In addition to NAPA, partners include:

- International Union of Operating Engineers
- Laborers International Union of North America
- Association of Equipment Manufacturers
- National Institute for Occupational Safety and Health
- Occupational Safety and Health Administration
- Manufacturers of Milling Machines
- Payne & Dolan Inc.

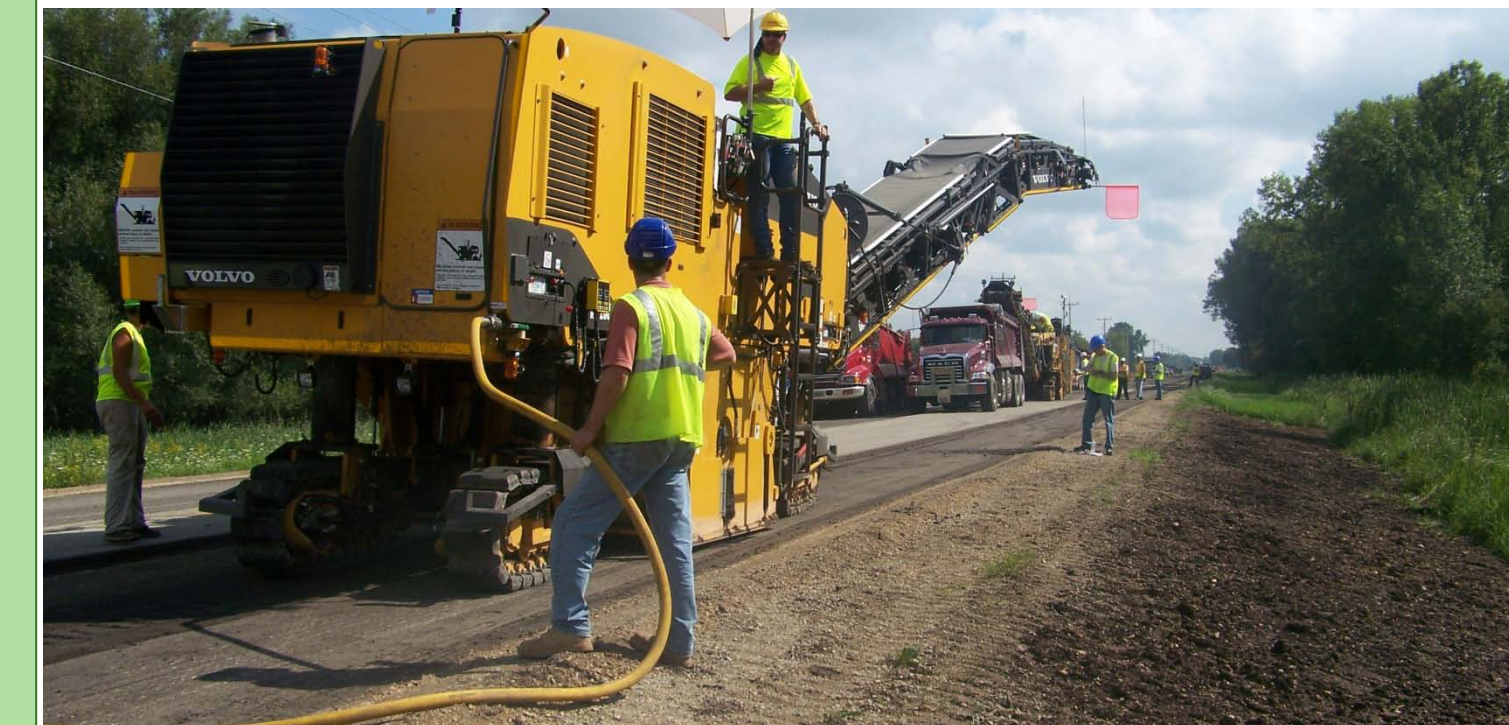
Significant time was invested in development of prototype dust-suppression systems. The challenge was also to learn how to evaluate these systems for effectiveness with statistical validity. It was found that NIOSH’s Cincinnati office and the Office of Mine Safety and Health Research in Pittsburgh had an abundance of expertise on dust suppression that the partnership could leverage. Prototype designs included water suppression and dust evacuation. In 2008, the partnership located an abandoned airfield in Michigan which had enough asphalt depth and milling surface to allow four milling machines to conduct multiple trials under controlled field conditions. In 2010, for a second round of testing, a 15-mile section of state highway in Wisconsin was utilized for further tests. This second round included five manufacturers. Also in 2010, OSHA conducted its own trials with standard industrial-hygiene personal-monitoring devices for sampling.

Current Status

In 2011 and 2012, the focus is on completing tracer gas testing for optimizing individual manufacturers’ evacuation system designs. The final phase will be testing in actual job settings.

Scenes from “Millfests”

Milling machines lined up for testing



Every day began with a “Safe Start” meeting



Contact

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