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## MARCELLUS HEALTH AND SAFETY ALERT

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### Worker exposure to **silica** during hydraulic fracturing

Recent NIOSH field studies confirm that workers may be exposed to dust with high levels of **respirable crystalline silica** (silica) during hydraulic fracturing. Silica is known to cause silicosis, a disabling and sometimes fatal lung disease, and lung cancer.

#### Potential exposure tasks

- Dust ejected from hatches on top of sand movers during filling
- Dust ejected and pulsed through open side fill ports
- Dust generated by onsite vehicle traffic
- Dust released from transfer belt under sand movers
- Dust from agitation in blender hopper and between belts and hopper
- Dust released from top of transfer belt (dragon's tail) on sand mover

#### NIOSH findings on worker exposure

- 116 samples collected
- 47% exceed the OSHA exposure limit (PEL)
- 79% exceed the NIOSH exposure limit (REL)
- 9% exceed 10 times the PEL
- 31% exceed 10 times the REL

#### What needs to be done to protect workers and company assets?

The first step is to determine the potential for exposure among your workers. Based on this critical information, you'll be able to properly plan the necessary actions to protect your employees.

#### Steps to take

- Collect personal hygiene monitoring samples under the guidance of an Industrial Hygienist.
- Develop engineering and/or administrative controls
- Train employees on silica exposure
- Institute OSHA-compliant respiratory protection and hazard communication programs
- Provide respiratory protection and other personal protective equipment if warranted
- Consider medical monitoring of employees

**Questions? Call us at (724) 316-6359.**