



Unregulated Crystalline Silica Exposure in Wisconsin

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Introduction

Occupational silica exposure is related to the development of respiratory disease, tuberculosis, autoimmune disease, kidney disease, silicosis and lung cancer. Recent proposals for sand mines and processing plants around Wisconsin – including Chippewa Falls – have raised substantial community concerns about health risks to the public.



Nofoxcreekpit.com

Sources of Exposure

Sandblasting, construction and demolition, agriculture, cement kilns, and mining are all occupational sources of crystalline silica exposure. Mining Sources: Blasting, transport and handling of sand, crushing and storage piles of sand.

Industrial Sand Plants In Wisconsin

Existing Industrial size: Maiden Rock, Taylor, Portage, Fairwater, Menomonie,

Proposed, Not yet operating: Chippewa Falls, Marshfield, Town of Preston

Discussion Stage: Town of Arland, Town of Almena

Regulatory Limits

The Mine Safety and Health Administration standard is

$$10 \text{ mg SiO}_2/\text{m}^3$$

$$\% \text{ SiO}_2 + 2$$

For dust that is 100% silica, the standard would be 0.1 mg/m^3

The only environmental exposure standard we found was 0.003 mg/m^3 from the California OEHHA.

Are Wisconsin Residents Protected?

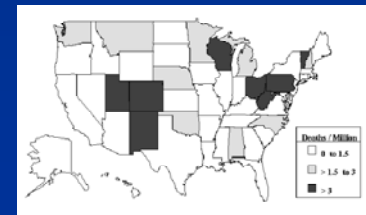
The Department of Natural Resources admits that crystalline silica is a human carcinogen (Andrew Stewart, 9/09), but is not regulating it as a hazardous air pollutant (NR 445). DNR was required to provide a report by July 1, 2006 but has not yet done so. A study has now begun.



Health Effects of Exposure

Silicosis –a fibrosis (scarring) of the lungs. Silicosis is progressive and leads to disability and death.

Silicosis: Crude mortality rates by state, U.S. residents age 15 and over, 1991-1992.



SOURCE: National Center for Health Statistics multiple cause of death data. Population estimates from U.S. Bureau of the Census.



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■ Lung Cancer – Crystalline silica (quartz) inhaled is classified as a carcinogen. By the following agencies:

-International Agency for Research on Cancer (IARC)

-National Toxicology Program

-California Proposition 65

-American Conference of Governmental Industrial Hygienists
-Occupational Safety and Health Administration :

Potential Cancer Hazard

-National Institute for Occupational Safety and Health (NIOSH)

:Potential Cancer Hazard

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