

Below are some links and excerpts from articles that address this serious hazard.

http://www.osha.gov/OshDoc/data_General_Facts/crystalline-factsheet.pdf

What is crystalline silica?

Crystalline silica is a basic component of soil, sand, granite, and many other minerals. Quartz is the most common form of crystalline silica. Cristobalite and tridymite are two other forms of crystalline silica. **All three forms may become respirable size particles when workers chip, cut, drill, or grind objects that contain crystalline silica.**

What are the hazards of crystalline silica?

Crystalline silica has been classified as a human lung carcinogen. Additionally, breathing crystalline silica dust can cause silicosis, which in severe cases can be disabling, or even fatal. The respirable silica dust enters the lungs and causes the formation of scar tissue, thus reducing the lungs' ability to take in oxygen. There is no cure for silicosis. Since silicosis affects lung function, it makes one more susceptible to lung infections like tuberculosis.

http://www.airinfnow.com/html/ed_particulate.html

Particles can come in almost any shape or size, and can be solid particles or liquid droplets. We divide particles into two major groups. These groups differ in many ways. One of the differences is size, we call the bigger particles PM10 and we call the smaller particles PM2.5.

BIG. The big particles are between 2.5 and 10 micrometers (from about 25 to 100 times thinner than a human hair). These particles are called PM10 (we say "P M ten", which stands for Particulate Matter up to 10 micrometers in size). These particles cause less severe health effects.

SMALL. The small particles are smaller than 2.5 micrometers (100 times thinner than a human hair). These particles are called PM2.5 (we say "P M two point five", as in Particulate Matter up to 2.5 micrometers in size).

The smaller particles are lighter and they stay in the air longer and travel farther. PM10 (big) particles can stay in the air for minutes or hours while PM2.5 (small) particles can stay in the air for days or weeks. **And travel? PM10 particles can travel as little as a hundred yards or as much as 30 miles. PM2.5 particles go even farther; many hundreds of miles.**