



UBC Research Project:

Respirable Crystalline Silica in the Manitoba Construction Industry

The University of British Columbia is conducting a research project looking at exposure to respirable crystalline silica (RCS) in the Manitoba construction industry. We are looking for companies to work with us to gather measurements of RCS at worksites of all kinds in Manitoba.

Who is running the project?

UBC is running this study, with funding from the Manitoba Workers Compensation Board. UBC has sole control over the research and the data collected. All participants will remain completely anonymous. The research work is not connected with SAFE Work Manitoba or inspection or enforcement of any kind.

What is the goal?

Employers need to know which tasks at their worksites are significant sources of RCS exposure. Because RCS testing is expensive, time-consuming and sometimes complex UBC is building an exposure database that will help employers predict what RCS exposure levels will be like on their worksites without having to do the testing on their own. UBC and the BC construction safety association have already built a website for contractors in that province (www.silicacontroltool.com) and our goal is to bring this to Manitoba.

How can you help?

We are looking for companies to work with us. Any construction industry company that works with concrete, asphalt, aggregates, drywall, stone, tile or any other material containing silica can participate.

Our staff will come to your worksite and take RCS measurements by equipping workers with a personal exposure monitor. Workers do their jobs normally while the samples are collected. Afterwards the samples are sent to a lab for processing, and the results will be shared with the participating company free of charge. We also have a quick questionnaire for participants to fill out.

MANITOBA – Common silica processes (CSP) to target

Material and task combinations

Asphalt

- Cutting asphalt with walk-behind saw
- Milling asphalt with milling machine
- Jackhammering asphalt
- Coring asphalt

Concrete masonry units

- Cutting concrete masonry units with table saw
- Cutting concrete masonry units with gas powered saw
- Demolition of concrete masonry structures

Concrete

- Cutting concrete with gas powered saw
- Coring concrete
- Drilling concrete with electric hammer drill
- Shooting/bolting into concrete with nailgun type tool
- Grinding concrete with angle grinder
- Grinding concrete with counterbalanced ceiling grinder
- Scarifying or bush hammering concrete
- Jackhammering concrete
- Abrasive blasting

Various materials

- Demolition
- Sweeping construction sites
- Powered sweeping with rotary brush (street sweeper or skid-steer)
- Sweeping/blowing with backpack blower

Shotcrete

- Shotcreting

Ceramic Tiles

- Cutting ceramic tiles with powered tile saw (installation or repair)

Rock/Sand/Earth

- Mechanized moving of rock/sand/earth
- Manual moving of rock/sand/earth
- Crushing/processing of rock/sand/earth

Marble/Granite

- Cutting marble/granite with powered saw
- Cutting/grinding/polishing/drilling into any decorative stone (installation or repair)

Drywall

- Cutting drywall
- Sanding drywall

Cementitious material

- Mixing and pouring concrete
- Breaking concrete forms

Mortar

- Tuck point grinding or similar

Fiber cement board

- Cutting fiber cement board with portable saw
- Cutting cement fiber insulation or similar material

Other

- Negative air handling unit maintenance
- Cleaning replacing filters on shop vacuum with HEPA filters