Common Tasks with High Potential for Silica Exposure

Identifying tasks with high potential for crystalline silica dust exposure is the first step in selecting appropriate controls.

Exposure levels vary widely depending on materials, environment, duration, and control measures. Testing and air monitoring during normal working conditions are the most reliable way to determine actual exposure levels and whether controls and respiratory protection levels are adequate.

Highest Exposure Potential tasks

These activities have the greatest likelihood of exceeding occupational limits if proper controls are not in place:

- Underground mining operations
- Crushing operations
- Blasting activities
- Production of engineered stone countertops
- Demolition activities
- Indoor processing of aggregate or other silica-containing media with dated/inadequate equipment and technology
- Soil disturbance during tilling and harvesting in dry climates
- Sandblasting

Construction and Industrial Tasks with Elevated Exposure Risk

The following are just a few tasks that can exceed exposure limits depending on duration and conditions:

- Cutting engineered stone tile or countertops
- Cutting concrete
- Grinding or polishing concrete
- Prolonged chipping
- Hand mixing individual bags
- Compacting
- Mechanically placing or loading aggregate
- Sanding board
- Processing concrete, grout, or asphalt

If your work includes these tasks, begin by identifying where silica risks may be present and review your controls using the hierarchy of controls. Employers have a legal responsibility to identify high-risk tasks and provide controls that protect workers from silica exposure.

Learn more at **LungSquatters.ca**

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