

Safety Alert - Property Services Group

Preventing Respirable Crystalline Silica Exposure

Issue Date: 24, March, 2023

Context:

The Victorian Government introduced new regulations in 2022 aimed at minimising Victorian workers exposure to crystalline silica and also adding additional regulatory oversight of high-risk crystalline silica work outside of engineered stone across all industries.

Hazard:

What is Respirable Crystalline Silica ? This is a form of Silica dust it is found in some stone, rock, sand, gravel, and clay. The most common form is quartz. Silica dust can also be found in the following products:

| Material | Crystalline Silica Content |
|-----------------------------|----------------------------|
| Engineered stone | Up to 95% |
| Granite | 25 – 60% |
| Marble | 5% |
| Sandstone | 70 – 90% |
| Brick | Up to 30% |
| Ceramic Tiles | 30 – 45% |
| Concrete | Up to 30% |
| Autoclaved Aerated Concrete | 20% - 40% |

Crystalline Silica Content of Various Materials

COMMERCIAL ACCIDENTS – Drive incidents without the safety of your employer.

Reducing workplace harm. Improving outcomes for injured workers.

When these materials are worked on, silica is released as a fine dust known as respirable crystalline silica or silica dust.

Silica dust is harmful when inhaled into your lungs. Exposure to silica dust can lead to the development of silicosis (an irreversible scarring and stiffening of the lungs). It is estimated that 230 people develop silicosis each year as a result of past exposure to silica dust at work. Not all exposed workers will develop silicosis; silicosis risk increases with long-term or repeated high-level exposure.

Who is at risk

The workers most at risk of exposure to silica dust are those who use power tools or mechanical equipment on silica containing stone or rocks and products that contain silica.

Moving Forward at RMIT

1. The uncontrolled cutting of engineered stone is prohibited.
2. All work performed at RMIT on material containing crystalline silica that generates dust is to be classed as **High-Risk Crystalline Silica Work**, unless determined otherwise by testing and risk assessment. By law, employers must carry out air monitoring if they are not sure if their employees are exposed to levels of silica dust that are above the exposure standard.
3. A crystalline silica hazard control statement (CSHCS) is required for all work performed on material that contains crystalline silica.
4. RMIT PSG Design Stds to be reviewed and updated to
 - I. Prohibit the use of Engineered stone
 - II. Prohibit the use of Sandstone containing >70% Crystalline Silica
 - III. Prohibit the use of any product containing >70% Crystalline Silica



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How to Manage the Risk

| HOC | Controls |
|--|---|
| Eliminate Get Rid Of | Use materials that do not contain crystalline silica |
| Substitution Change/Replace | Use materials with a lower crystalline silica content Using fibre cement sheet sheers instead of circular saws |
| Isolation Separate | Use automated machines, Fully enclosed work areas with high efficiency air filtration Apply exclusion zones |
| Engineering Controls | No dry cutting, use wet methods Use on tool water suppression technology or dust extraction Use well positioned local exhaust ventilation Use H or M-class vacuums |
| Administrative Controls Instructions & Signs | Design shift rotations and limit task times Use signage to warn of silica dust hazards in the area Design housekeeping and cleaning policies Prepare a safe work method statement (SWMS) |
| PPE | Provide respiratory protective equipment (RPE) with a suitable protection factor |

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Comments: For further guidance from WorkSafe Victoria.

<https://www.worksafe.vic.gov.au/pdf/crystalline-silica-safety-basics>

<https://www.worksafe.vic.gov.au/resources/preparing-crystalline-silica-hazard-control-statement-high-risk-crystalline-silica-work>