Respirable Crystalline Silica in mines and quarries

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The potential for worker exposure to crystalline silica is widespread within mining and quarrying. Very fine Respirable Crystalline Silica (RCS) is particularly harmful to workers. It can be generated during drilling, blasting, crushing, cutting and transporting.

Follow these four simple steps to reduce risk of exposure.

Identify	Assess	Control	Monitor
Sample source rock to identify presence of silica	Conduct personal exposure monitoring to determine worker exposure	Use controls listed below to reduce the risk of exposure	Regular personal monitoring Periodic Health surveillance

Some facts about Respirable Crystalline Silica

Current Workplace Exposure Standard (WES) level for RCS is **0.025mg/m3**

Exposure monitoring must be done by a competent person in accordance with **AS 2985**

Multiple samples allow better understanding of exposure

Regular health surveillance (medical) should be conducted including spirometry (lung capacity test)

All health surveillance should be supervised by an appropriate doctor

Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations 2016

Reg 84 - Monitor worker exposure to RCS if workers are exposed to levels above the WES

Reg 127 – Regular health medicals must be offered to workers at least every 5 years

Controls include:

- **Use of water on plant, stockpiles and roads**
- **Dry dust extraction**
- **Separation of workers from high exposure areas**
- **Personal protection equipment - dust masks**

For more information see Managing worker exposure to dust in mines and quarries on the MinEx website.