

Tough approach being taken on silica dust management

Heidi Bendikson - Mon, 17 Jun 2024

Operators need to protect their workers from silica dust and WorkSafe will be tough on those who don't, the regulator says.

Last year, it was revealed that two Southland workers from an unnamed atypical quarry had been diagnosed with silicosis.



WorkSafe says their enquiries have led to changes being introduced by that operator.

"This includes real-time dust monitoring, misting sprays on screening equipment, and more detailed medical checks for workers," an agency spokesperson says.

The agency says it is satisfied with the changes made and will continue to ensure those efforts are continuing through ongoing inspections.

A WorkSafe spokesperson told *Inside Resources* that businesses must manage their health and safety risks from silica dust.

"Where businesses fail to manage their risks, WorkSafe can hold them to account. Our enforcement action can range from prohibition and/or improvement notices through to prosecution under the Health and Safety at Work Act 2015."

A WorkSafe mines inspector has told workshop attendees that the regulator will be coming down hard on employers who fail to protect their workers from silica dust, according to the latest edition of MinEx's newsletter.

Risk

Silicosis is caused by inhalation of respirable crystalline silica (RCS) which can be generated in considerable volume by cutting and grinding engineered stone, and at lower levels in mines and quarries.

Accelerated silicosis typically takes three to 10 years to develop, while chronic silicosis usually develops from exposure over 20 years.

MinEx chief executive Wayne Scott says the organisation is being very noisy about the silicosis risk for New Zealand.

"And we will continue to be very noisy."

He says he has told Brooke van Velden – the Minister for Workplace Relations and Safety – that New Zealand needs a silicosis register and occupational hygienist trained to detect silicosis.

Australian approach

Scott says New Zealand could learn from some simple things being done in Australia which has faced this issue for a number of years.

In 2017 the Queensland state government introduced a suite of mine-dust lung disease reforms, including specialised training for those reviewing workers' x-rays.

Australia recently banned engineered stone – a main source of accelerated silicosis – and from next year will require HVAC systems in all machinery cabs.

WorkSafe says that installation of HVAC systems with appropriate filtration is one way of minimising risks to worker health.

The agency says it cannot mandate the use of HVAC systems as that would require a regulatory change by MBIE.

Managing silica dust

In 2019, WorkSafe reduced the exposure standards for all forms of silica-crystalline from 0.1 mg per cubic metre over eight hours to 0.05 mg/cubic metre. The agency said at the time that the previous standards were "inadequate to protect workers".

New regulations introduced in 2022 require all quarry workers to undertake pre-employment medicals – including x-rays and a measure of lung function – as well as five-yearly checks.

Speaking on the issue last year, WorkSafe chief inspector for extractives Paul Hunt said there were several measures operators could take to manage the risk of silica dust.

In addition to offering workers medical check-ups, Hunt says quarry operators need to ensure they understand the rock material and overburden they are handling and determine the risk of workers being exposed to unsafe levels of silica or other material.

"Take into account the type of material, type of mining process, what types of processing takes place, and the activities of workers and potential for exposure to dust."

He adds that operators need to put in place dust control systems proportionate to the determined risk from the site's mining and processing activities, using the hierarchy of controls available.

They must also monitor the effectiveness of controls through an environmental and exposure monitoring programme.