

Submission on the discussion document on work with engineered stone and materials containing crystalline silica

March 2025

MinEx

MinEx is the national health and safety council for New Zealand's extractive sector – the mining, tunnelling and quarrying industry. Our principal purpose is to help industry achieve its goal of being free from fatalities, injuries and diseases. MinEx is funded by the mining and quarry sectors through the respective associations and a number of individual companies with a mandate to:

1. be the main point of contact with the Ministry of Business, Innovation and Employment (MBIE), WorkSafe New Zealand (WorkSafe) and other agencies on all extractive sector matters related to health and safety; and
2. through leadership and consultation develop an industry view on relevant legislation, regulations, guidelines and training matters, and work with MBIE, WorkSafe and other agencies to adopt and implement those views, as appropriate.

To inform this submission, MinEx consulted with Straterra, the Aggregate and Quarry Association, the Institute of Quarrying NZ, E tū, AusIMM NZ, Civil Contractors NZ and many other mining, tunnelling and quarrying operators.

We make the following submissions in relation to the consultation document on Work with engineered stone and materials containing crystalline silica.

Key points

- We strongly support a total ban on engineered stone, however, concede there may need to be a phased removal of the product.
- We support Option 4 in its entirety as other sectors would benefit from a general duty to reduce RCS exposures from work, mandatory worker exposure monitoring and mandatory health monitoring.
- We strongly recommend that the Government establish an Occupational Lung Disease Registry to provide treatment and support to all workers (regardless of their ACC status).

General comments

Silicosis (dust lung disease) is the most common disease associated with Respirable Crystalline Silica (RCS). Tiny RCS particles cause lung inflammation and scarring, leading to breathing difficulties, and long-term lung damage and sometimes death. Exposure to RCS can also cause diseases of the kidneys, immune system, heart and some cancers.

Silicosis is an ancient occupational disease but work with engineered stone has seen the emergence of accelerated silicosis. Accelerated silicosis develops quickly, typically over 3 to 10 years, or even within 1 year with intense exposure. Although there are supportive treatments, silicosis currently has no cure. Accelerated silicosis has been affecting and killing mainly males under 35 years old within a few years of exposure.

In Australia, Safe Work Australia and all governments (commonwealth, state and territory) undertook compliance activities, education, awareness campaigns, and health screening programmes to prevent further unlawful exposure to RCS. Despite this activity, Australia's conclusion was that there was insufficient compliance (by PCBU's and workers) with the controls and standards and insufficient compliance activities by the regulators. As a result, from 1 July 2024, the Australian Government banned nationwide manufacturing, supply, processing, and installation of engineered stone benchtops, panels, and slabs. From 1 January 2025, Australia banned the importation of engineered stone.

Options for working with engineered stone

We support Option 5A, a full ban on import, supply, and use of engineered stone as this will eliminate the hazard of exposure to RCS for workers in the engineered stone industry. Attempts to manage exposure through risk assessment and controls in Australia failed, and WorkSafe inspections in New Zealand indicate that controls are not working here either.

The WorkSafe report on engineered stone for the year to October 2024, show that inspectors visited 102 businesses and issued 131 improvement notices to 67 of those businesses. This is five years after WorkSafe started paying attention to engineered stone and clearly indicates that a large number of businesses are not complying with health and safety controls.

It is reasonable however, to consider a staged transition given that some progress has been made since 2019 and there will be projects in progress at the time of any decision. We would support the following:

- Stage 1 (6–12 months): Reinforce immediate mandatory controls (wet cutting, extraction ventilation, PPE, education and training) and ban imports of engineered stone above 40% RCS.
- Stage 2 (12–24 months): Transition existing contracts and installations, mandating silica content testing and labelling to ensure compliance.
- Stage 3 (24–36 months): Evaluate the partial ban's effectiveness and unless the risk is as low as reasonably achievable, move to a full ban.

Options for working with materials containing crystalline silica

The Health and Safety at Work (Mining Operations and Quarrying Operations) Regulations contain requirements for sites that identify RCS as a hazard to conduct regular exposure monitoring and health monitoring. These regulations have benefitted the sector as they articulate what is required to identify the hazard and monitor how successful controls have been. We therefore support Option 4 in its entirety as other sectors would benefit from a general duty to reduce RCS exposures from work, and mandatory worker exposure monitoring and mandatory health monitoring.

Additional design considerations

National Occupational Lung Disease Registry

Data is crucial to inform future policy decisions and ensure continuous improvement in worker safety standards. We strongly recommend that the Government establish an Occupational Lung Disease Registry to provide treatment and support to all workers (regardless of their ACC status). The registry would also monitor trends and health outcomes of workers exposed to RCS and assess the effectiveness of the implemented measures.

Thanks to the presence of an Occupational Lung Disease Registry In Australia, 600 silicosis cases have been identified through Victoria's 2019 screening programme, most of them young stonemasons. This data has been pivotal in identifying the extent of exposure, helping manage exposures, and assisted in the treatment of identified cases. The data ultimately led to the banning of all engineered stone in Australia in 2024.

The lack of such data in New Zealand means we can't identify cases or predict who's at risk, severely hampering the control of this serious worker health hazard.

This registry should ideally sit within WorkSafe, who should work with industry and health professionals to conduct ongoing research and monitoring.

Ethical-sourcing standards

In relation to the importation of engineered stone, the Government should commit to Ethical Sourcing Standards. This would mean collaborating with international partners to promote ethical and sustainable practices in the engineered stone industry and support initiatives that advocate for safe working conditions in countries where these materials are manufactured. To support the transition from high-silica engineered stone, the Government should provide financial incentives and research grants to businesses developing and adopting low-silica or silica-free alternatives.

Viable and safe substitutes already exist on the international market making the elimination of RCS exposure achievable without disrupting customer needs. There are also alternative products, such as Ultracera, which replicate engineered stone's appearance and functionality without containing any silica.

Enhance training for general practitioners and medical specialists, and specialist clinics

There is a shortage of qualified occupational hygienists and medical specialists competent in diagnosing and testing for diseases associated with silica exposure. Additional training should be provided for those working with workers potentially exposed to RCS.

To ensure timely diagnosis and support, we recommend establishing dedicated occupational health clinics for silica-exposed workers, supplemented by mobile worksite testing units for lung function and RCS exposure assessments. These services should be accessible without GP referral, addressing barriers for vulnerable workers.

Review of the Worker Exposure Standard (WES) system

While not covered by this review, we believe the current non-regulated WES system is not helping improve worker exposure monitoring or managing the hazards associated with RCS. The WES should have some regulatory standing so that it drives positive behaviours including improvement in monitoring techniques and equipment, enhanced training of occupational hygienists and medical practitioners, and enables regulatory enforcement.

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