



# Silica Safe Work Laws: What Construction Industry Professionals Need to Know

## Overview

As of 1 September 2024, Australia has taken a significant step forward in worker safety with the introduction of enhanced silica regulations under the Work Health and Safety Amendment (Crystalline Silica Substances) Regulation 2024 expanding protections to over 600,000 workers across various industries. This groundbreaking legislation, previously limited to engineered stone workers, now extends across sectors like civil construction, tunnelling, mining, and quarrying, where exposure to respirable crystalline silica (RCS) is common. As construction industry professionals, it's crucial to understand the legal implications, compliance obligations, and the associated risks of this new legislative framework. Here's a comprehensive look at the updates and their impact.

## Health Risks

Crystalline silica, a natural mineral primarily composed of quartz, is present in materials commonly used in construction, such as concrete, sandstone, granite, and manufactured stone. Uncontrolled cutting, grinding, drilling, and polishing of these materials release hazardous levels of RCS dust, which, when inhaled, can cause severe and irreversible health conditions such as:

- Silicosis – a lung disease that results in scarring of lung tissue, leading to severe shortness of breath, and in extreme cases, death.
- Lung cancer – long-term exposure to silica dust can dramatically increase the risk of lung cancer.
- Chronic Obstructive Pulmonary Disease (COPD) – silica exposure exacerbates or can lead to COPD, a chronic condition causing airflow blockage and breathing problems.
- Kidney disease – exposure to silica dust is linked to

chronic kidney disease in workers.

The workplace exposure standard (WES) for RCS is set at 0.05 mg/m<sup>3</sup>, measured over an 8-hour period. Exposure levels above this standard pose significant health risks, demanding strict compliance with protective measures.

## The Scope of the New Silica Laws

The new laws, effective from 1 September 2024, have far-reaching implications. While previous legislation focused on workers in engineered stone benchtop manufacturing, the revised framework now covers a wide array of industries, including:

- Civil construction
- Road and rail tunnelling
- Quarries and mining
- Road maintenance

These updates result from extensive campaigning, most notably by the Australian Workers' Union (AWU), which highlighted the dangers of crystalline silica across multiple industries. AWU National Secretary Paul Farrow noted that "over 600,000 workers exposed to deadly crystalline silica dust" would now benefit from the same protections previously only afforded to a select group of workers.

## Key Requirements of the New Legislation

### 1. Silica Risk Control Plan

For high-risk silica processes, employers are now required to develop and implement a Silica Risk Control Plan. This plan is mandatory for all high-risk processes that are reasonably likely to expose workers to harmful levels of RCS.

Key considerations in assessing risk include:

- Frequency and duration of exposure to RCS.
- The material being processed and its silica content.
- The specific tasks (e.g., cutting, grinding, drilling) and the likelihood of exposure.
- Existing air monitoring results and prior incidents.

The risk control plan must be shared with workers and made accessible before any work involving crystalline silica substances begins. A failure to provide this plan or implement the necessary controls may result in severe penalties.

### 2. Health Monitoring

The law mandates that employers provide health monitoring for workers exposed to RCS in high-risk processes. Health checks, including chest X-rays and lung function tests, are crucial for early detection of silicosis and other silica-related illnesses. The results of health monitoring must be recorded and retained for at least 30 years, ensuring a long-term safeguard for affected workers.

If a doctor identifies any silica-related disease, injury, or illness, or recommends remedial measures, employers must notify SafeWork NSW and take action immediately, such as halting high-risk activities or enhancing protective controls.

### 3. Air Monitoring and Reporting

Employers must conduct air monitoring to ensure that RCS levels in the workplace do not exceed the WES. If air monitoring reveals that silica dust levels surpass the regulated threshold, employers must report the exceedance to SafeWork NSW within 14 days. Additionally, real-time measures, such as wet suppression and on-tool extraction systems, must be implemented to reduce silica dust at its source.

#### 4. Training and Awareness

The legislation also emphasises worker education, requiring employers to provide comprehensive training on the hazards of crystalline silica and the importance of safety measures. Workers need to understand the risks associated with silica exposure and the specific precautions they must take to ensure their safety. Failure to adequately train workers on silica safety could be considered a breach of the new laws.

## Practical Steps for the Construction Industry

Given the expanded regulatory scope, construction companies, contractors, and subcontractors must take proactive steps to comply with the new laws. Below are key takeaways:

**Conduct Comprehensive Risk Assessments:** Identify all tasks that involve processing crystalline silica substances and assess whether they are high-risk. Document the findings in detail and take appropriate control measures.

**Implement Control Measures:** Ensure that all crystalline silica processes are controlled through a combination of wet suppression, on-tool extraction, or enclosed operator cabins. Where controls alone do not suffice, provide appropriate respiratory protective equipment.

**Prepare Silica Risk Control Plans:** For high-risk processes, draft detailed risk control plans in consultation with workers. These plans must outline control measures and be regularly reviewed to adapt to changing workplace conditions.

**Ensure Health Monitoring Compliance:** Organise and pay for health monitoring, especially for workers involved in high-risk processes. Keep health monitoring records for at least 30 years, and act swiftly if any adverse health effects are identified.

**Train and Educate Workers:** Develop a training program to ensure workers are fully aware of the risks and control measures related to RCS. Empower them to demand safety measures, including stopping work if safety protocols are not followed.

## Conclusion

The new silica laws represent a significant shift in how Australia manages the risks associated with crystalline silica dust, addressing years of oversight in industries beyond engineered stone fabrication. For construction industry professionals, the responsibility is clear: compliance with these laws is not just a regulatory obligation but a moral imperative to protect the health and well-being of workers.

Failure to implement these new controls could result in substantial legal consequences, from fines to reputational damage. As construction lawyers, we recommend that all industry participants review their operations, update safety protocols, and work closely with legal and safety experts to ensure compliance from day one.

By embracing these changes and fostering a culture of safety, the construction industry can prevent devastating health impacts and ensure that all workers can “breathe easy” while performing their crucial work.

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## More information

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