MINERALS COUNCIL OF AUSTRALIA

SUBMISSION ON THE CONSULTATION REGULATION IMPACT STATEMENT - MANAGING THE RISKS OF RESPIRABLE CRYSTALLINE SILICA AT WORK

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1. EXECUTIVE SUMMARY

The Australian minerals industry is committed to continuous improvement in all areas of safety, health and psychological wellbeing and follows a best practice risk-based approach to managing risks of exposure to the workplace. The Australian mining industry's core value and commitment is the safety, health and psychological wellbeing of its workforce, where everyone who goes to work returns home safe and healthy.

The Minerals Council of Australia (MCA) continues to actively engage in and support the principles and objectives of the harmonisation of health and safety legislation to ensure the benefits of national consistency can be achieved in the longer term.

The MCA acknowledges that risks of respirable crystalline silica (RCS) (high silica content products) with poor or no control, is a significant health hazard for workers in Australia. In particular, the increased production of engineered stone.

The industry agrees that workplace exposures to RCS have led to a substantial increase in the number of cases of silicosis in Australian workers and that silicosis and other silica related diseases, can be prevented by implementing known effective controls to eliminate or minimise the generation of and exposure to RCS at work.

However, a blanket regulatory approach focused on engineered stone inadvertently captures other workplaces and industries where robust controls already exist.

The industry is supportive of risk based regulation to reduce RCS workplace exposures but any additional regulation should take into account the risk profile and maturity levels of the different industries the regulation would apply to.

Safe Work Australia did not consider the Australian mining context in the workplace exposure standards review, nor did it examined the respiratory disease incidence data that is available from the Australian mining industry, it is clear that the CRIS also does not consider the mining industry's existing regulatory requirements and risk management approach to RCS.

In addition to commenting on this CRIS the, MCA recommends that transitional arrangements for any further mandated changes to RCS exposure standards and regulatory requirements include assessment of operational impact.

Summary of the MCA's recommendations

- An increased focus on awareness and education across businesses and the community more broadly
- Develop guidance and training on how to apply and implement existing regulations
- Increased capability and capacity of regulators to provide compliance support and interpret data, as well as appropriate enforcement activity
    - For regulators who are tasked with managing illnesses or air monitoring, there must be a minimum level of relevant education and experience
- Targeted campaigns and education material for high-risk activities
- Regulation and supporting guidance should promote proactive and continuous improvement efforts informed by the best available information regarding recommended exposure standards and effective controls
    - Consider a simple template for risk assessment for risks could be developed and made. Any additional or site specific risks and controls in place would then be added by the business

- Any new regulations must not duplicate existing regulatory requirements for the minerals industry
- Only exceedances of the WES should be reported – this will show a failure of control and trigger follow up by SWA or State/Territory regulators
    - Reporting all air and health monitoring would also be a significant disruption and cost to industry and government with no discernible benefit
    - Avoid the assumption made in the CRIS that simply monitoring air and health will reduce the exposure risk, refocus on the need for prevention measures
- Explain the assumptions underpinning, and, clarify the costs for Option 5a and 5b.

About the Minerals Council of Australia

The MCA is the leading advocate for Australia's world-class minerals industry, promoting and enhancing sustainability, profitability and competitiveness. The MCA represents a sector that is dynamic, diverse, sustainable and valued by all Australians.

The purpose of the MCA is to:

- Advocate for social, economic and environmental public policy that supports a stronger, more sustainable minerals industry
- Work with industry to promote leading practice in safety, skills and training to develop the minerals workforce of the future
- Partner with communities, businesses and governments to maximise mining's contribution to Australia.

The MCA's vision is of a minerals industry comprised of nation builders and global leaders.

The MCA's mission is to secure:

- A minerals industry free of fatalities, injuries and diseases
- A skilled, diverse, productive and flexible workforce
- Policy settings conducive to economic growth and competitive access to resources
- Indigenous and community relationships built on trust and greater engagement
- Improved environmental performance throughout and beyond life of mine
- A measured transition to a zero-emissions global economy.

2. WORKPLACE EXPOSURE STANDARD

In its submission to the review of workplace exposure standards, the MCA challenged the validity of the health based limits underpinning the recommended changes to the 8-hour time weighted average (8-h TWA) for RCS workplace exposure standards (WES) as follows:

- 0.02mg/m^3 crystalline silica (currently 0.1 mg/m^3)

The recommended limits largely reflected the position of the primary sources used in the review, particularly the American Conference of Governmental Industrial Hygienists (ACGIH) TLV-TWA values. The ACGIH itself acknowledges however that its recommendations do not consider the issues of technical feasibility or economic impact on industry where its limits are adopted. In fact, ACGIH cautioned regulatory agencies against the application of TLV's in regulations as they "are not designed to be used as standards". MCA understands that the US has not adopted the ACGIH limits for either RCS or RCD.

The MCA acknowledges that Safe Work Australia Members agreed with its concerns about the uncertainty in measuring levels of RCS below 0.05mg/m^3 8-hour TWA, and that a further reduction of the WES was not considered feasible.

Further, the MCA continues to maintain that SWA had not considered the Australian mining context in the review, nor had it examined the respiratory disease incidence data that is available from the Australian mining industry. This is a major flaw and prevented the review from being considered a process based on the best available science.

3. GENERAL COMMENTS ON CRIS

The MCA is pleased that SWA has developed a CRIS to identify the cost-benefit of the workplace exposure standard for RCS. In addition to the measurement challenges of a standard less than 0.05mg/m^3 8-hour TWA, it is critical that the costs and practicability of compliance with the standard is understood.

The minerals industry continues to advocate for the implementation of primarily advisory, non-mandatory occupational exposure standards, with mandatory standards limited to instances where clear and reliable criteria are met. This is best supported by detailed guidance or other educational material to facilitate continuous improvement in the development of best practice risk approaches for the management of workplace exposure hazards. This would need to be developed in close consultation with industry and subject matter experts and include consideration of health based and socio economic impacts such as carcinogenicity, serious disease and technical feasibility of compliance.

It is important that articulation of exposure standards in legislation or guidance materials does not lead to these being interpreted as the 'line in the sand' that defines acceptable levels of exposure, as this would drive a compliance focused approach and is unlikely to result in the best possible outcomes. Rather, legislation and supporting guidance should promote proactive and continuous improvement efforts informed by the best available information regarding recommended exposure standards and effective controls.

This approach must recognise the fast pace of technological advancements and the ongoing research that continues to inform occupational safety and health on hazardous and potentially hazardous chemicals as well as the need for practical and pragmatic approaches where the body of knowledge on a risk is not yet developed or is only currently based on emerging data, yet to stabilise.

Harmonised legislation points to the immediate treatment of risk, and it is clear that the initial focus must be on the highest risk activities, exposures and gaps. Starting with workplaces that require support to improve implementation of safety and legislative controls. This includes micro and small businesses, involving high silica/quartz content exposure at high levels, stone masons, and all involved in the manufacture, supply and installation of manufactured stone benchtops, concrete industry and tunnelling involving 'road heading' plant.

Education and guidance versus Regulation

It is very clear that education and awareness has been lacking. It is also clear that compliance with existing laws, and enforcement thereof has been lacking. Increasing regulatory requirements will not counteract the need for education and awareness, nor the need for compliance and enforcement.

The MCA recommends much more disciplined, supported and targeted campaigns and education material as a priority. In addition, to increased compliance, targeted guidance and training on how to apply existing regulations is required, as well as appropriate enforcement activity.

Government intervention can be beneficial in providing guidance and minimum risk based requirements, particularly where organisational internal expertise and standards may be lacking.

The existing SWA guidance - *Working with silica and silica containing products*[1] - clearly only covers:

- Natural stone products such as marble or granite benchtops
- Asphalt
- Cement, mortar and grout
- Concrete, concrete blocks and fibre cement products
- Bricks

[1] https://www.safeworkaustralia.gov.au/doc/working-silica-and-silica-containing-products/english

- Pavers and tiles including roof tiles.

Practical guidance for all industries is required.

SWA need to ensure all workplaces (including small and micro-businesses) have the tools and the support they need to comply. Including access to regulator support services and guidance.

This guidance must consider literacy, comprehension and other educational factors to ensure the information is accessible and effective.

A simple template for risk assessment for risks could be developed and made. Any additional or site specific risks and controls in place would then be added by the business.

Compliance support, targeted awareness and education, and guidance can contribute to a more immediate and powerful change.

Hierarchy of controls

As described in the CRIS, implementing effective controls to eliminate or minimise the generation of, and exposure to, RCS at work, is required under the duty of care, through, for example:

- Eliminating the need to process silica-containing materials
- Substitution of silica-containing products with alternative products that do not contain silica, or contain less silica
- Isolating people from areas where they would be exposed to RCS
- Implementing engineering controls such as on tool dust extraction, water suppression and/or local exhaust ventilation
- Implementing administrative controls, such as policies for housekeeping and decontamination, and
- Ensuring workers use appropriate personal protective equipment.

With reference to the above hierarchy of controls, the minerals industry cannot eliminate the risk given that *in situ* silica-containing materials are disturbed through a range of extraction and processing activities. Neither substitution nor isolation may be possible for the same reason.

This elevates the importance of lower level controls including engineering controls, administrative controls and Personal Protective Equipment (PPE) in the minerals industry.

Application to the minerals industry

It is unclear why on page 15, the CRIS states "*The quarrying and mining industries in New South Wales, Queensland, Tasmania and Western Australia are not regulated under the model WHS laws and are also out of scope."*

All jurisdictions (except Victoria) have adopted the Model WHS laws. Industry specific legislation for mining and quarrying does exists in some jurisdictions, however these are subordinate to the principle regime. Therefore, if adopted by jurisdictions, changes to the Model regulations will also apply to the mining and quarrying industries.

Additionally, the mining industry is specifically referenced in various tables and appendices as businesses captured by the regulatory and non-regulatory options assessed.

It should be noted, however, that not all high-risk industries are at the same level of maturity with respect to prevention and detection of silica related disease. The mining sector is more so associated with long-term exposure of relatively low levels of respirable dust and silica. It has had in place for many years, state-based regulatory requirements relating to exposure monitoring, control and health surveillance for respirable dust and silica. In our experience, protecting workers from long latency disease requires worker exposures to be consistently identified and controlled.

Whilst there is still monitoring required to continue to minimise exposures across the mining industry, there is a strong foundation to build upon. The mining industry does not typically face the same challenges and risks encountered by the engineered stone industry, which is more so associated with short term exposure to large amounts/high levels of dust and as mentioned in the CRIS, can include micro or small businesses which are unlikely to have comparable internal capability and resources.

4. OPTIONS OUTLINED IN CRIS

Option 2 - national awareness and behaviour change initiatives

This is a priority.

Greater awareness campaigns nationally would be beneficial utilising multiple contemporary platforms and focused on high-risk activities in industries with less maturity in managing risks of exposure to RCS (e.g. engineered stone but also address other industries like construction and tunnelling.)

The MCA recommends targeted campaigns and education material as a priority. In addition, to increase compliance, targeted guidance and training on how to apply existing regulations is required, as well as appropriate enforcement activity.

In parallel, regulatory education and training is required.

Where relevant, greater partnership with Original Equipment Manufacturers and suppliers on the design of equipment (including maintenance requirements) to reduce RCS workplace exposures. A general duty already exists on Original Equipment Manufacturers and suppliers in the design of equipment (including maintenance requirements) to reduce the potential for workplace risks, including RCS exposures, but it is unclear whether education, awareness and enforcement occurs with respect to this duty.

Option 3 - clarify existing requirements of the model WHS laws into specific regulations covering defined high risk silica processes

Under the proposed definitions it is unclear why A *crystalline silica substance* would be defined as materials containing over 1 per cent crystalline silica and would include engineered stone, when the WES is 0.05mg/m^3 8-hour TWA.

There are also many more processes that would be captured that could disturb silica-containing material than those listed under the definition of *crystalline silica process* e.g. drill, blast, load, haul, dump, analysing/processing/concentrating substances that contain Silica.

The three points listed under “this would specify” do not actively mitigate the exposure risk. Developing and documenting controls in could, but it has been established in CRIA that there is a lack of understanding on what to do and how to protect.

We note that the sentence “Clarification that air monitoring and health monitoring are required is expected to reduce the risk to workers from exposure to RCS” is incorrect.

Air monitoring and health monitoring will not reduce the exposure risk. These will tell you that a person has been, or has potentially been exposed during a monitoring event, the other is for disease identification. Neither have any impact on exposure.

Option 4 - implement a national licensing framework for PCBUs working with engineered stone

Not applicable.

Option 5a - additional regulation of processes involving all materials meeting the definition of a crystalline silica substance, including engineered stone

The proposal for risk assessment and implementation of controls already exists in mining-specific regulations. There should be no duplication of regulatory requirements for the mining industry.

Risk assessment and control plan

The MCA agrees with the proposed requirement to undertake a risk assessment and develop and implement a silica risk control plan. This is in line with standard risk management processes.

It is important to note that while PPE is the lowest on the hierarchy of controls, it can play an important interim control particularly where technology based solutions are needed but not available.

Where PPE is in place as an interim control, it must be supported by appropriate design, operating and verification requirements for it to be effective.

Air monitoring

There are also existing requirements in mining-specific regulations regarding provision of workplace air monitoring reports to regulators. Any new requirements must not represent a duplication for the mining industry, creating an unnecessary and ineffective regulatory burden.

Health monitoring

There are also existing requirements in mining-specific regulations regarding provision of health monitoring reports to regulators. Any new requirements must not represent a duplication for the mining industry, creating an unnecessary and ineffective regulatory burden.

For example NSW mine operators report any breach in acceptable exceedance levels to the NSW Resources Regulator, with exceedances discussed further at the Standing Dust Committee. The coal industry is also supported by the Coal Services Health surveillance system, which is unique and world-class, designed to identify any potential dust diseases at the earliest possible stage. It covers current and retired workers, and any abnormal observations are reviewed by respiratory specialists. This program provides evidence of the effectiveness of current RCS workplace exposure standards in avoiding adverse health outcomes.

Reporting

Reporting all air and health monitoring would also be a significant cost to industry and government with no discernible benefit.

Only exceedances of the WES should be reported – this will show a failure of control and trigger follow up by SWA or State/Territory regulators.

The MCA does not agree with the proposed requirement to provide all results of air monitoring and health monitoring to the WHS regulator within 30 days of receiving reports. This seems particularly onerous with little positive risk benefits.

The MCA instead recommends providing results on a quarterly basis which aligns with other existing Regulator requirements e.g. in two mining jurisdictions, the frequency for the provision of air monitoring results is on a quarterly basis. Monthly reporting requires greater effort due to the time taken to collate results, obtain the necessary internal approvals through to submission of results. It is unclear what the benefit of more frequent reporting would be and the effort to do so could be otherwise used to support the silica risk control plan activities.

Further, a requirement to report all monitoring data will overwhelm each regulator (refer to DMIRS CONTAM database, or Queensland Government's requirement to report all silica samples as a test cases).

The MCA agrees with reporting of diagnoses that are attributable to occupational exposure to RCS (confirmed by a registered medical practitioner) to the regulator within 30 days of receiving diagnoses.

Regulator capability and capacity

It is important to understand who is the mandatory reporting being interpreted by within State/Territory regulators? Are there minimum education/experience parameters to be doing this work? There is a shortage of occupational hygienists (MAIOH) in the country (and the world), this must be taken into account.

For regulators who are tasked with managing illnesses or air monitoring, there must be a minimum level of education and experience (eg MAIOH, MPH, MD). This may be difficult to achieve, but without a base knowledge, gaps may not be observed during inspections.

It is also important to understand how the data will be used once collected – will regulators publish aggregate data and update guidance as more information is acquired?

The MCA strongly recommends the results are analysed routinely by the regulator and trends/insights are provided back to industry, unions, suppliers and other relevant stakeholders to help drive targeted improvements and sharing of good practice without fear of reprisal.

Monitoring results will need to be considered in the context of the specific industry and it may not be helpful for example, to compare exposure data from the mining industry (where it is typically low levels of silica dust over an extended period) to the exposure data from the engineered stone industry.

Option 5b - Regulation of defined high risk crystalline silica processes for all materials excluding engineered stone

It is unclear why additional costs to industry for Option 5a is $194.86M over 10 years, but 5b, which excludes engineered stone is $192.21M. This implies that engineered stone costs represent only $2.65M of the total cost to industry.

Further, the 'breakeven' analysis indicates that the required number of silicosis cases prevented to breakeven between Option 5a (48.00) and Option 5b (47.35) is 0.65, again implying that the majority of silicosis cases will be from industries excluding engineered stone.

This appears at odds with the principle focus on reducing risks of RCS exposure in engineered stone sector, with other less risky industries bearing the overwhelmingly majority of costs under these options. It appears therefore that regulatory effort would be misdirected.