

31 October 2019

WorkSafe
567 Collins Street
Melbourne
VIC 3000

Via email: legislation@worksafe.vic.gov.au

Dear Sir/Madam

DISCUSSION PAPER - SCOPE OF PROPOSED SILICA REGULATIONS

The Construction Material Processors Association (CMPA) is dedicated to the representation and service of its Members in the Victorian Earth Resources industry. The CMPA represents a broad spectrum of businesses that extract and process hard rock, gravel, sand, clay, lime, and soil. CMPA members also operate recycling businesses.

CMPA members are typically small to medium sized family and private businesses, local government and utilities. Many are regionally based employers and service local construction, infrastructure and road maintenance needs. The extractives sector is a key pillar within the construction industry underpinning the growth and economic development of Victoria through supply of the construction materials.

In 2017/18, the sector supplied 58 million tonnes of construction materials to the market, at a value of approximately \$948 million. Small to medium quarries account for approximately half of this production.

The CMPA supports the principle of responsible, balanced legislation that is in the best interests of the State of Victoria.

Thank you for the opportunity to comment on the Discussion Paper – Scope of Proposed Silica Regulations (Discussion Paper).

Workplace Exposure Standard

**Note: Safe Work Australia (SWA) recently reviewed the WES for Respirable Crystalline Silica. Although a final decision on the WES is yet to be made by Work Health and Safety Ministers, there is evidence that a risk to health occurs at exposures in excess of 0.02mg/m³ TWA. (Pg.2 1st para Discussion Paper)*

Accordingly, SWA's health-based recommendation is that the WES be reduced from 0.1mg/m³ to 0.02mg/m³ to prevent fibrosis and silicosis and minimise the risk of lung cancer.

The CMPA understands that:

- Safe Work Australia members' recently recommended reducing the WES for respirable crystalline silica dust (RCSd) from a time-weighted average (TWA) of 0.1mg/m³ over eight hours to 0.05mg/m³, with a three-year transition period. **Not 0.02 mg/m³ as stated in the discussion paper.**
- Safe Work Australia shall undertake further research on whether a reduction to 0.02mg/m³ is achievable.

Measurement and Analysis

Occupational Hygienists are stating that:

- There are issues with accurately measuring RCSd levels down to 0.02 mg/m³ that have not been resolved;
- There are issues with accurately calibrating x-ray diffraction equipment at this level that have not been resolved. This is mostly due to the specific laboratory and the methods used to calibrate their devices;
- Different silica types (e.g. Crystalline Silica or Quartz, Tridymite and Cristobalite) can present differently when being measured, therefore the monitoring results may be inaccurate.

The (US) National Institute for Occupational Safety and Health (NIOSH) has presented a paper on the issues associated with measuring RCSd levels.

Operational Exposure

Dust monitoring has been common practice in the construction materials industry for well over 20 years.

The levels of exposure have reduced significantly as the industry has matured and embraced sharing of knowledge and adoption of effective and sustainable controls.

If assessed by WorkSafe, claims data arising from the construction materials industry for dust related disease in Victoria over the past 20 years would substantiate these comments.

The vast majority of exposure levels sit well below the current WES. It is generally only maintenance workers who at times through specific short-term activities may experience exposure levels equal to the WES. These practices have been identified and controls such as wet down and protection factored PPE have been established and implemented.

Industry Awareness

The CMPA is committed to ensuring the health and safety of workers in the construction materials processing industry.

The CMPA developed a Work Safely Reference Manual for the construction materials industry, initially in 2001 that, along with other industry hazards, provided guidance on the control of risk,

associated with dust hazards, specifically RCSD hazards. The Work Safely Reference Manual became the mandatory unit from 'Certificate II and III in Surface Extraction Operations' from the 'Resources and Infrastructure Industry Training Package'.

The CMPA developed a guideline for its members titled CMPA Dust Management Guideline 2016 which provided comprehensive guidance on the control of risk associated with dust hazards, specifically respirable dust hazards, e.g. RCSD.

The CMPA has also developed:

- CMPA pre employment health assessment proforma;
- CMPA periodic health assessment proforma;
- CMPA exit employment health assessment proforma;
- CMPA instructions for medical practitioners.

The CMPA has held many well attended dust management workshops for its members and other interested parties such as WorkSafe in 2014, 2015, 2016 and 2019.

In the mid 1990's a national industry/trades union cooperative awareness program was introduced. In Victoria the Australian Workers Union (AWU), other building unions and employee/industry associations worked together to establish an awareness program of the health risks associated with unprotected exposure to RCSD.

The program was inclusive of:

- A Safe Work Video;
- A Safe Handling of Silica products brochure;
- Communication programs for use on production/construction sites;
- Training in work practices designed to reduce dust generation and the correct use and maintenance of PPE.

Around this time the concept of product stewardship was embraced by the construction materials industry resulting in the establishment and distribution of information relevant to the risks arising from the hazards associated with the handling and used of products containing RCSD, e.g.

- Safety Data Sheets;
- Product Information Sheets;
- Product Warnings and Labels.

With the movement towards quality management systems approaches in the early to mid-1990s, hazards such as RCSD were increasingly managed in a more systematic manner.

The construction materials industry has recognised the significant risks associated with exposure to the RCSD hazard and pro-actively controlled these risks since the early 1990's in a diligent manner.

The construction materials industry has always been heavily regulated.

This is a very different scenario to the bench top industry, a relatively new industry to Australia with minimal barriers to entry, ignorance of risk and or regulation, lack or of industry representation and

sharing of knowledge, and most importantly a lack of regulatory enforcement, despite the worker health consequences of their activities has been well researched and published internationally for many years.

WorkSafe did not begin a targeted inspection campaign of the bench top industry until October 2018 although news of this health crisis was publicly available to occupational health and safety professionals both in Australia and internationally for a long period of time prior to this campaign.

WorkSafe has found relatively high levels of non-compliance with 340 improvement notices being issued. Key areas of non-compliance were:

- Dry cutting / polishing of engineered stone – visible airborne dust;
- Poor housekeeping – dust on floor and surfaces;
- Use of compressed air for cleaning;
- Inadequate recycle water system in place;
- No respirator training / maintenance;
- Dry grinding – off-site installation;
- No health surveillance program in place.

The construction materials industry is generally not involved in cutting, grinding or polishing stone.

The use of compressed air for cleaning has been well documented within the construction materials industry guidelines and workshops as a high risk practice and generally employers have prohibited that practice and have adopted the use of HEPA vacuum systems and or wet wiping to clean cabins and facilities etc.

Respirator training and use has been well entrenched in the construction materials industry for well over 20 years.

Health surveillance programs have been adopted and utilised in the construction materials industry for a similar time period.

In summary, the improvement notices issued to the unregulated bench top industry are not relevant to the construction materials industry.

“As highlighted above, the significant rise in silica related illness can predominately be attributed to the rapid growth in the residential construction industry and the increased demand and use of engineered stone at a time when the hazards and risk were not well understood”. (Pg. 3 4th para Discussion Paper)

The above statement is misleading when it refers to the *“hazards and risk were not well understood”*. This may be the case within the local engineered stone industry but the occurrence of dust related diseases arising through working with engineered stone is well known, documented and researched internationally.

It would be reasonable to assume that WorkSafe would have had access to this research and could have acted on that research.

Different silica types

There are many different types of silica but they are generally crystalline silica, cristobalite and tridymite.

The specific types of silica within engineered stone are generally not disclosed, e.g. not individually categorised in the Safety Data Sheet (SDS) for that particular product and are understood to be a combination of several sources.

Quarry materials are generally of the crystalline silica form

Engineered stone can contain between 85% and 95% silica and also contains pigments and synthetic polymers such as polyester resins

A table in an international SDS for Caesar Stone lists the different international personal exposure standards (PEL) for crystalline silica, cristobalite and tridymite

The latter two forms have been separated from crystalline silica in the table and their Permissible Exposure Limits are often significantly less (half) that of the crystalline silica form. It is assumed that in many countries latter two types of silica are seen as more hazardous than the crystalline silica form.

Safe Work Australia's document "Workplace Exposure Standards for Airborne Contaminants 2018" directs the same WES being 0.1 mg/m³ for all the 3 mentioned forms of silica.

Discussion

A written and oral submission was made by CMPA to the Senate Community Affairs References Committee "Workplace Exposure to Toxic Dust" 29 September 2005. The CMPA submission highlighted the need for consistent and systematic enforcement of Workplace Exposure Standards (WES) for Respirable Crystalline Silica (RCS). This was supported by submissions from other organisations. A recommendation from the Senate Committee was as follows:

Recommendation 7

5.87 That the Minister for Employment and Workplace Relations raise with the Workplace Relations Ministers' Council the need to ensure enforcement of hazardous substance regulations and the need to enact nationally consistent standards in a more timely manner.

However, the Government's response whilst in support of the recommendation 7 never addressed the issue of enforcement of WES for RCS specifically across Australia.

Other recommendations that were not implemented included:

Recommendation 2

3.60 That the Australian Safety and Compensation Council extend the Surveillance of Australian Work-Based Respiratory Events (SABRE) program Australia-wide and that the program provide for mandatory reporting of occupational lung disease to improve the collection of data on dust-related disease.

Recommendation 7 and 2 are also supported by the Australian Institute of Occupational Hygienists (AIOH) Position Paper Respirable Crystalline Silica (December 2018).

A case for no change in WES

It is understood that the community has seen recent upsetting pictures of young men in the engineered stone benchtop processing/cutting industry with silicosis which may have led to a hasty reaction to propose ever-decreasing WES by various Governments nationally and internationally. However, the real issue is whether compliance (backed up by consistent enforcement from the Regulators) to the current WES of 0.1 mg/m³ was occurring at the time. More quantitative research needs to be undertaken to demonstrate that dust mitigation measures such as water suppression are indeed adequate protection from RCS.

It is acknowledged by the AIOH paper that there is “...an ever-increasing published literature on the topic (RCS), sometimes with opposing views...”. This suggests that there may be selective review of the literature to justify changing of WES. The AIOH goes on state “...recommends limiting worker exposure to RCS to as low as reasonably practicable (ALARP) to be at all times below an 8-hour time weighted average (TWA) guidance exposure value of 0.1 milligram (mg) respirable fraction in each cubic metre (m³) of air. In addition, a TWA value of 0.05 mg/m³ should be applied as an action level...”. The AIOH supports this position in that “current and historical evidence, including that from the Australian workforce, indicates that ***if enforced it appears to be protective*** of the incidences of silicosis...”.

The following are the options being proposed in the Discussion Paper:

Option 1

One option is that the high risk silica activities outlined in Table 2 be regulated, in a similar way that Lead is regulated under Part 4.3 of the OHS Regs. Attachment 1 provides an overview of potential requirements that could apply when work involves the specified high-risk activities listed above.

Response

This option forces an unnecessary and costly administrative burden on the construction materials industry that has demonstrated through their approach to RCS control that the occurrence of dust related diseases arising from their operations are minimal as tabled in the Appendix A of the Discussion Paper.

This option promotes increasing regulation although the current WES (0.1 mg/m³) has not been enforced by WorkSafe nor adopted by the bench top industry. **CMPA does not support Option 1.**

Option 2

Rather than prescribing high risk silica activities, an alternative option would be to require an employer:

‘to identify whether their work is reasonably likely to lead to an airborne concentration of respirable crystalline silica at or above the exposure standard.’

This approach places the onus of identification on the employer and would ensure all relevant activities are captured. However, the lack of specificity in this approach, particularly around what constitutes ‘reasonably likely’, may also add confusion and result in poor compliance.

Response

This option is very similar to how self-regulation operates now in the construction material industry: identify hazards and control the risk as far as is reasonably practicable through the adoption of the hierarchy of controls.

What constitutes “reasonably likely” has proven to be well understood by responsible employers who are committed to the health and safety of their workers

What constitutes “reasonably likely” could be communicated to the bench top industry through best practice guidelines and easily regulated by WorkSafe as with other workplace hazards. **CMPA does not support Option 2.**

Option 3

Another alternative option is for no substantial change to the scope of the OHS Regs other the inclusion of specific additional requirements regarding SDS/labelling, information to prospective employees and health monitoring (refer to requirements 1, 6 and 7 in Attachment 1).

Response

The CMPA supports Option 3.

- Specific SDS and labelling requirements are generally well established in the construction materials industry.
- The CMPA encourages the establishment of more specific health monitoring requirements as there is lack of clarity in this area.
- The CMPA not only supports but expects the appropriate enforcement of the existing regulations across all industries involved in RCSD.

I would be happy to discuss our submission further at your invitation.

Yours sincerely



Dr Elizabeth Gibson
General Manager