

18 February 2021

WorkSafe  
Geelong  
Victoria Australia 3220

Via website: <https://engage.vic.gov.au/proposed-silica-regulations-2021>

Dear Sir/Madam

**OCCUPATIONAL HEALTH AND SAFETY AMENDMENT (CRYSTALLINE SILICA) REGULATIONS  
EXPOSURE DRAFT 2021**

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.

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

Thank you for the opportunity to comment on the Occupational Health and Safety Amendment (Crystalline Silica) Regulations Exposure Draft 2021 (Crystalline Silica Regulations).

CMPA is very much aware of respirable crystalline silica dust (RCS) and the potential adverse impact on employees' health and has been instrumental in raising this issue and subsequently compliance among Members through:

- CMPA pre employment health assessment proforma;
- CMPA periodic health assessment proforma;
- Silica specific periodic health monitoring

- CMPA exit employment health assessment proforma;
- CMPA instructions for medical practitioners;
- Holding dust workshops 2016;
- Development of the CMPA Dust Management Guideline March 2016;
- Delivering dust training;
- Workshop on Dust Thursday 23 May 2019 at Quality Hotel, 265 Mickleham Road, Tullamarine; including presenters from EPA VIC, WorkSafe, Monash University (Occupational Physician) etc. with a view to modernising the current CMPA Guideline;
- Webinar CMPA Dust Management and Medical Assessment Guidelines Thursday 22 October 2020. Guidelines were reviewed by WorkSafe, Occupational Hygienist and Occupational Physician and the webinar subsequently made available online;
- The CMPA Respirable Crystalline Silica Dust Management Guideline 2021 to be released February 2021 (it will be amended for any subsequent changes due to the proposed Crystalline Silica Regulations amendments).

## General comments

### Regulatory Impact Statement

#### p.10 3<sup>rd</sup> para

*“A recent study estimates that 6.6% of Australian workers are exposed to RCS and 3.7% are highly exposed when carrying out tasks at work.”*

#### CMPA comments

These figures appear to be very high when compared to the number of claims for exposure to respirable crystalline silica dust detailed latter on.

#### p.10 3<sup>rd</sup> para

*“One study showed that that the majority of workers in the construction industry as a whole, across trades and tasks, can be exposed to levels above 0.025mg/m<sup>3</sup>, or half the workplace exposure standard, which is a level of exposure at which occupational hygienists generally recommend actions such as reviewing controls and/or health monitoring should be considered.”*

#### CMPA comments

The action level on WorkSafe’s website is stated as being 0.02 mg/m<sup>3</sup>. Does this mean that the action level is being increased by WorkSafe to 0.025 mg/m<sup>3</sup>?

#### p.13 5<sup>th</sup> para

*“Some stakeholders are of the view that improved enforcement, of either the pre-August 2019 Regulations, or the silica-related provisions in the existing Regulations would be sufficient to avoid these harms. These views are noted, and WorkSafe has significantly increased its compliance and enforcement regime since October 2018 and as part of the Victorian Government’s Silica Action Plan. WorkSafe will continue to place a strong focus on compliance and enforcement under the proposed Regulations.”*

### **CMPA comments**

The CMPA has noticed the increase in compliance and enforcement by WorkSafe. If the engineered stone industry were regulated as recommended in the Senate Enquiry into toxic dust, these proposed amendments would not be necessary.

The issue highlighted below regarding basalt needs to be addressed, though.

### **P.14**

#### ***“2.2.1 Exposure risks across relevant industries***

*Exposure to RCS is an occupational hazard across many Victorian industries, including manufacturing, construction, mining and quarrying. The crystalline silica content of common materials used across industries can vary significantly, ranging from 5 to 95 per cent, as outlined in Table 2.1. With engineered stone and sand recording crystalline silica content levels of up to 95 percent, industries that utilise a larger proportion of these materials in processes that generate dust have a higher risk of exposure to RCS.”*

### **CMPA comments**

The use of the range from 5 to 95 per cent is confusing for WorkSafe compliance and enforcement officers. 40% of the annual production of extractive resources in Victoria is basalt and contains <1% crystalline silica. See *Earth Resources Regulation 2019-20 Annual Statistical Report* at <https://earthresources.vic.gov.au> .

*“Within the last two million years small scale volcanic eruptions (Newer Volcanics) have had a major impact on the Victorian landscape. About 400 volcanoes have produced extensive basalt flows forming a thin veneer (generally less than 50 metres) covering much of western Victoria. The basalt plains consist of superimposed valley flows and volcanic centres with associated basaltic aprons.”*  
<https://earthresources.vic.gov.au/geology-exploration/victorias-geology>

### **CMPA comments**

In the table following are the quartz (crystalline silica) content measurements for basalt (0%) in Victoria are given.

6. The table below summarises the results of the quartz content measurements. The results are grouped into geological units, and for Melbourne Formation the result are also grouped further into weathering grade and material composition.

Geological Unit	No. Tests	Quartz Content (%)		
		Lower	Upper	Average
<b>Melbourne Formation</b>				
EW Siltstone/Sandstone	1	53	53	53
HW Siltstone/Sandstone	6	9	72	28
MW Siltstone/Sandstone	13	14	79	43
SW Siltstone/Sandstone	16	11	71	41
	<b>Dyke*</b>	9	5	68
<b>All Siltstone*</b>	22	9	72	39
<b>All Sandstone*</b>	14	11	79	42
<b>All Melbourne Formation</b>	45	5	79	37
<b>Older Volcanics</b>				
	3	0	0	0
<b>Newer Volcanics</b>				
<b>(Burnley Basalt and Swan St Basalt)</b>	2	0	0	0
<b>Brighton Group</b>	1	85	85	85
<b>Werribee Formation</b>	1	82	82	82
	<b>Total</b>	52		

\* based on aggregate of all boreholes drilled, approximate proportions of material types in Melbourne Formation is 72% Siltstone, 26% Sandstone, 2% Dyke

7. The testing indicates that the basalts (Older and Newer Volcanics) do not contain crystalline quartz. The Brighton Group and Werribee Formations are the soils which contain sand in the form of crystalline quartz." See [https://metrotunnel.vic.gov.au/data/assets/pdf\\_file/0003/73272/MM-EES-TN059-Silica.PDF](https://metrotunnel.vic.gov.au/data/assets/pdf_file/0003/73272/MM-EES-TN059-Silica.PDF).

#### CMPA comments

It may be advisable for WorkSafe to develop materials for WorkSafe officers in conjunction with GeoVic, Earth Resources Regulation, DJPR on the silica content of basalt to limit unnecessary requests for proving quartz content through either petrographic analysis or x-ray diffraction which places an unnecessary cost to CMAA members. The scope of which could be:

Objective: The objective of the statement is to exempt CMAA Members from conducting unnecessary analysis for quartz content and to enable the delivery of the statement content to quarry employers and workers in an easily understood manner.

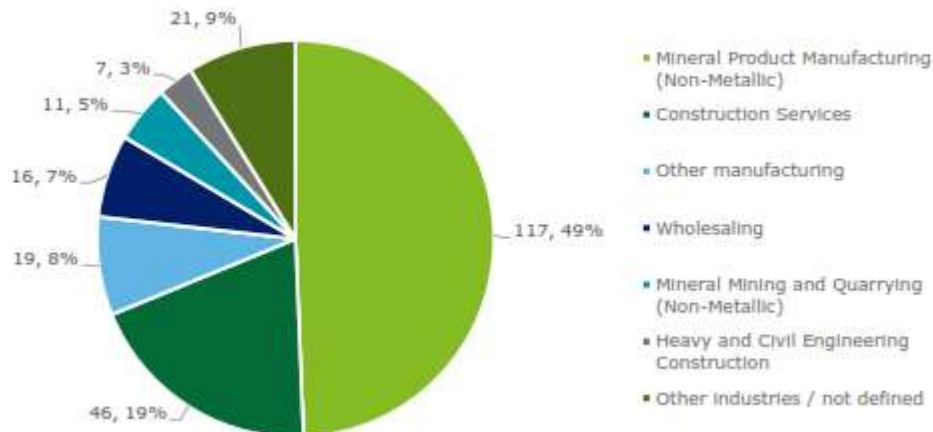
Goals: The statement should:

- Use relatively simple language;

- Explain how basalt is generally formed in Victoria;
- Include descriptions of new and old basalt and their formation;
- Explain using geological terms why basalt in Victoria generally does not contain quartz over 1% whilst basalt in other areas can contain higher quartz content;
- Be kept to one page if possible.

p.18

Chart 2.3: Total silicosis and related claims by ANZSIC industry classification, 1985-2020



**CMPA comments**

The total silicosis and related claims by ANZSIC industry classification, 1985-2020 gives the number as 11 claims for the mineral mining and quarrying industry. This works out to be approximately 0.3 claims per annum.

**p.30 Blue text box**

*“Risk assessment: An employer must undertake a risk assessment to determine if a silica process or combination or silica processes are reasonably likely to result in a risk to the health of employees; or exceed half the exposure standard for RCS.”*

**CMPA comments**

As per WorkSafe’s website, the action level for silica is 0.20 mg/m<sup>3</sup> which contradicts the above statement in the RIS.

**p.30 Blue text box**

*“Silica hazard control statement (SHCS): A hazard control statement is a document that identifies work that is high risk silica work, states the hazards and risks associated with that work and sufficiently describes measures to control those risks and how to implement them. Where the SHCS relates to a quarrying or tunnelling process, the SHCS must also include the results of an analysis of a representative sample of the range of materials that will used at the workplace that identifies the silica content present in those materials.”*

**CMPA comments**

The quarry industry is being persecuted despite having very low levels of claims in comparison to the engineered benchtop industry.

**p.31**

*"3.3.3 Education and awareness campaign"*

**CMPA comments**

The CMPA supports the proposed education and awareness campaign, however, reference could also be made in the RIS to industry associations guidance such as the CMPA Respirable Crystalline Silica Dust Management Plan Template that has been reviewed by WorkSafe together with CMPA medical assessment guidelines such as Silica specific periodic health monitoring developed by occupational physicians.

**p.40**

*"Requirement for employers to undertake a risk assessment where prescribed silica processes are to be undertaken to determine if it is high risk, and for those deemed high risk, to prepare a silica hazard control statement - According to WorkSafe, the requirement to undertake a risk assessment under the proposed Regulations would involve reviewing current processes to consider whether, in an uncontrolled environment, these processes would result in a risk to the health of employees due to exceeding the exposure standard, and therefore be considered high risk. It is assumed that this would take approximately two hours of employee time at a cost of \$50 per hour, per person for the business, including the average Victorian hourly wage rate of \$34 per hour, plus overheads and on-costs of 50%."*

**CMPA comments**

The requirement to undertake a risk assessment at a cost of \$100 is a gross underestimate. Many of CMPA Members are small businesses and would require the use of an experienced OHS consultant. It would cost a minimum of 16 hours @ \$160 per hour (a conservative rate for a safety consultant) and include x-ray diffraction analysis @ \$500 per hour giving a minimum total of \$3,060.

If the quartz content has been identified, then the risk assessment is not required with moving to a hazard control plan as stipulate in:

WorkSafe Compliance Code Plant Edition 1 March 2018

Part 3.2 - Assessing risks

148: *"A formal risk assessment is unnecessary if knowledge and understanding about the risk and how to control it already exists. However, if an employer is unsure how to control a risk associated with an item of plant, a risk assessment can help. For example, it is not necessary to undertake an assessment if an employer is aware of a known risk control to address the risk of plant drawing in or trapping body parts (eg isolation or guarding) and the risk can be controlled immediately using that control."*

**P.42 1<sup>st</sup> para**

*"For the remaining businesses, it is likely that a basic assessment and documentation of the potential risks related to RCS on the site they are working will fulfil the requirements under the Regulations. This is anticipated to take approximately one hour at a cost of \$50 per hour, for one employee. This is assumed to be undertaken annually across the ten-year period, with a total cost of \$12.5 million over ten years."*

### **CMPA comments**

The cost for a basic assessment and documentation is grossly underestimated. For example, the cost of x-ray diffraction analysis of the source rock would be a minimum of \$500 alone.

#### **p.42 4<sup>th</sup> para**

*"It is estimated that the cost to prepare a hazard control statement is approximately \$200 per document. This is based on advice from WorkSafe, considering the process to complete a Safe Work Method Statement which is an equivalent document. The \$200 includes 2 hours of employee time, as well as a \$100 template fee. Once again, this requirement will apply to all stonemason businesses as well as 37% of the total earth resources businesses, and 10% of the manufacturing and construction businesses. Assuming this will take place annually across the ten year period, this has a total cost of \$3.6 million over ten years."*

### **CMPA comments**

Again, the cost for preparation of a hazard control statement is grossly underestimated and would be a minimum of \$1200-\$1400 (e.g. travel to site, inspect area, established work practices and controls, consult with workers/management and identify what further controls can be utilised, draft statement, consult with workers re draft, finalise statement, add to document control register and have site manager authorise, toolbox talk statement with all relevant workers, have workers acknowledge and commit to statement, maintain records).

#### **p.42 5<sup>th</sup> para**

*"The risk assessment process will require all impacted businesses to undertake atmospheric monitoring. Businesses indicated that average cost to undertake atmospheric monitoring is \$4,000."*

### **CMPA comments**

Generally, the extractive industry undertakes monitoring as a condition of their Work Authority, however, the figure of \$4000 is extremely low. It is more likely to be in the order of \$6000-\$10,000 per annum.

#### **p.42 6<sup>th</sup> para**

*"The Regulations will also require mandatory health assessments for employees of businesses undertaking high risk silica processes. The cost of health monitoring differs based on the size of a business. Of those businesses consulted, four of the nine pay for regular health assessments (in addition to the WorkSafe program). For smaller businesses with roughly 10 employees, the annual cost is \$3000, while large businesses with 30 employees, the annual cost is \$8000+."*

### **CMPA comments**

Generally, as per the requirements under the OHS Act, health monitoring is conducted by the extractive industry. The CMPA assists Members with the process using medical assessment forms for pre-employment, periodic including a separate silica form and post-employment together with guidelines for medical practitioners. These have been developed by occupational physicians experienced in the area of silica related diseases.

Personal dust exposure measurement is also conducted at a cost of \$1000 per person per annum.

#### **p.60 4<sup>th</sup> para**

*“In other sectors where there are high risk silica processes, the impact on small businesses and competition will be small. This is because the costs of complying with the proposed Regulations will be relatively low, as well as the fact that mining, quarrying and tunnelling businesses are typically not small businesses.”*

### **CMPA comments**

The above statement is incorrect. In Victoria there are numerous small extractive industry businesses with 860 quarries in total approximately 50% of these, 430, would be small quarries. The adverse impact these Crystalline Silica Regulations are going to have on small quarry businesses needs to be considered in the RIS. See *Earth Resources Regulation 2019-20 Annual Statistical Report* at <https://earthresources.vic.gov.au>.

### **Summary**

#### **Crystalline Silica Regulations**

- 319D (a): A trigger point of greater than half the exposure standard for respirable crystalline silica being considered high risk is too high. An eight-hour time-weighted average exposure standard is the average airborne concentration of a particular substance **permitted** over an eight-hour working day and a 5-day working week.
- 319 D (b): *“a risk to health of a persons at the workplace”* is too broad a definition for high risk work and is unquantifiable.
- 319 F and G: Will the manufacture of a crystalline silica substance also include asphalt production, cold mix production, RAP processing/use of other recycled products that may contain crystalline silica products?
- 319 H: Does this mean that the revised silica statement needs to be provided to all previous customers? If this is the case, this will be a very high administrative burden and difficult to track.
- 319 P (3): The meaning of this clause is unclear.
- 319 U: There is no guidance on the frequency of testing and how different areas of the quarry pit will be addressed, for example, a site with silica contained within the overburden. Note analysis should be conducted at a NATA accredited laboratory for crystalline silica and not just a *“competent person”*.
- 319 W *“Information for job applicants”* This clause needs to be clarified further. Is this just for successful candidates or is it for all job applicants? As it currently reads, it is for all job applicants which poses a high administrative burden. There may be 100 applicants for one role. This seems to be a disproportionate requirement.

#### **Regulatory Impact Statement**

- A one page, plain English statement needs to be developed for basalt which contains < 1% crystalline silica.



- The RIS needs to be amended as it is erroneous in a number of its calculations which grossly underestimate the cost impacts of the Crystalline Silica Regulations. This could have been avoided if CMPA was consulted during the preparation of this RIS. The figures used by CMPA were 860 work authorities and approximately 3000 people directly employed in the extractive industry based on data from [www.earthresources.vic.gov.au](http://www.earthresources.vic.gov.au) and demonstrates that the RIS has underestimated costs to the industry by 500% as shown in the table below.

Activity	RIS cost	RIS cost breakdown	Actual cost (conservative)	Actual cost breakdown
Risk assessment	\$100	\$0.01 million	\$3060	\$2.63 million
Hazard Control Statement	\$200	\$0.07 million	\$1200	\$1.03 million
Air monitoring	\$4000	\$2.12 million	\$6000	\$5.16 million
Personal dust exposure measurement	\$0		\$1000	\$3.00 million
Silica specific periodic health monitoring	\$300	0.46 million	\$1000	\$3.00 million
Total		\$2.66 million		\$14.82 million

- Small business and competition impacts needs to be amended to include small quarries of which there are approximately 430.
- Clarification is sought as to the action level for crystalline silica: 0.02 mg/m<sup>3</sup> or 0.025 mg/m<sup>3</sup>.
- NATA accredited laboratories for crystalline silica have varying results due to the thresholds being very difficult to measure. As the exposure standard drops, the margin for error lends itself to the possibility of results exceeding the standard when that may not actually be the case.
- The proposed required documents will take time to research and complete properly for questionable improvement in the overall safety of employees. It mirrors the model of the Mines Regulations in NSW which requires these management plans that will not be read and have little or no safety improvement outcome. The hazard is already known and the ways to reduce the risk to employees without writing plans to come to the same endpoint purely for the sake of compliance with the Crystalline Silica Regulations.
- These proposed Crystalline Silica Regulations are an impulsive reaction by WorkSafe in their failure to regulate the engineered stone benchtop industry. The quarry industry has been successfully managing silica exposure over many years, which is proven by the extremely low claims in the industry of 1 every 3.3 years. This is more remarkable because many employees in the industry have worked in quarries for many years.

## Conclusion

The preferred option is **licencing plus the full package of reforms for stonemasons only** due to evidence of control of respirable crystalline silica dust in the quarry industry through a low number of claims and overwhelming evidence of failure of control in the engineered stone benchtop industry.

The CMPA would welcome discussions with WorkSafe concerning the CMPA's respirable crystalline silica dust resources being made available more widely.

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

Yours sincerely



Dr Elizabeth Gibson  
General Manager  
Mobile: 0434 692 618  
Email: [elizabeth.gibson@cmpavic.asn.au](mailto:elizabeth.gibson@cmpavic.asn.au)