



## ***Public consultation on the prohibition on the use of engineered stone***

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When making your submission by email or post, please complete the following form and include it with your submission.

Submissions will be accepted until **11:59pm AEST 2 April 2023**.

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*(Please leave blank if you wish to remain anonymous)*

Title, First Name, Surname: Dr Matthew Govorko

Organisation name, if applicable: Cancer Council Australia

Email: [REDACTED]

Contact number, including area code: [REDACTED]

1. This submission is written on behalf of an: ☐ Individual ☒ Organisation

2. Which of the following categories best describes you? Choose more than one if applicable.

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- ☐ Community organisation
- ☐ Designer
- ☐ Employer organisation representative
- ☐ Government representative
- ☐ Industry representative
- ☐ Officer of a company
- ☒ Peak health body representative
- ☐ Person conducting a business or undertaking/employer
- ☐ Person with silicosis or silica related disease, or a family member
- ☐ Professional
- ☐ Supplier, manufacturer or importer
- ☐ Trade union representative
- ☐ Worker
- ☐ Work health and safety consultant
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- ☒ Northern Territory
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- ☒ South Australia
- ☒ Tasmania
- ☒ Victoria
- ☒ Western Australia
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5. What industry do you operate in? Choose more than one if applicable.

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- ☐ Heavy and Civil Engineering Construction
- ☐ Tunnelling
- ☐ Construction Services
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06 April 2023

## **Safe Work Australia**

### **Public consultation on the prohibition on the use of engineered stone**

#### **Submission from Cancer Council Australia, Occupational & Environmental Cancer Committee**

Cancer Council Australia is the nation's peak non-government cancer control organisation. Cancer Council's Occupational and Environmental Cancer Committee (the Committee) includes members with national standing in relevant disciplines including epidemiology, molecular biology, occupational health, occupational hygiene, clinical oncology, and public health. Comments from the Committee form the basis of this submission and their contribution is acknowledged. Cancer Council Australia welcomes the opportunity to provide comment on the Safe Work Australia's *Public consultation on the prohibition on the use of engineered stone – Consultation Paper*.

Submission endorsed by:

Megan Varlow, Acting Chief Executive Officer, Cancer Council Australia

Professor Tim Driscoll, Chair Cancer Council's Occupational and Environmental Cancer Committee

Submission contact:

Dr Matthew Govorko

## **GENERAL COMMENTS**

Cancer Council commends Safe Work Australia for acting on stakeholder feedback pertaining to the *Consultation Regulation Impact Statement: Managing the risks of respirable crystalline silica at work* and including Option 6 – Prohibition on the use of engineered stone in the Decision Regulation Impact Statement (Decision RIS) that was considered by Work Health and Safety (WHS) ministers at their meeting on the 28<sup>th</sup> of February 2023. We acknowledge and commend the WHS ministers for unanimously agreeing to implement Option 2a (National awareness and behaviour change initiatives) and Option 5a (Regulation of high-risk crystalline silica processes for all materials (including engineered stone) across all industries) and to conduct further analysis and consultation on Option 6 (Prohibition on the use of engineered stone).

We support the call for a prohibition on the use of engineered stone. It has become very clear that it is not safe to work with engineered stone products. Despite widespread publicity about the dangers of working with engineered stone if dust exposure levels are not adequately controlled, experience in several States in Australia and in New Zealand has been that dust exposure levels remain high, putting workers at risk. In addition, research has shown that it is very difficult to achieve the necessary low dust levels even when wet work methods are used.<sup>1,2,3</sup> Workers handling and processing engineered stone benchtops have close to a one in four chance of developing silicosis<sup>4</sup>, a disease which is progressive,

incurable, and can be fatal, in addition to an increased risk of developing lung cancer. It has become very clear that it is not safe to work with engineered stone products – silicosis caused by engineered stone occurs earlier than with natural stone, progresses faster than would be expected given previous experience with silica exposure in other workplace settings, and progresses even after removal from exposure.<sup>5,6</sup> It is important to emphasise that cases of silicosis, lung cancer, and other silica-related diseases arising from exposure to silica dust generated from processing engineered stone are entirely preventable. In addition, there is new evidence suggesting that other ingredients in engineered stone also contribute to the disease risk in workers.<sup>6</sup>

Silica dust is classified as a Group 1 carcinogen by the International Agency for Research on Cancer (IARC), because prolonged exposure to respirable crystalline silica (RCS) increases the risk of lung cancer. An estimated 230 people develop lung cancer each year in Australia due to past exposure to silica dust at work<sup>7</sup>, but this number may well rise as a result of workers' exposure to very high levels of silica dust in the engineered stone industry since the early 2000s. Studies have reported ratios for the number of lung cancer deaths to silicosis cases in cohorts of silica-exposed workers of approximately 1:8 and 1:10.<sup>8,9</sup> The Decision RIS noted there were 436 silicosis cases diagnosed among 4743 workers screened (p.24-25). Therefore, based on this figure and the ratios, it can be expected there will also be between 44 and 55 lung cancers caused by silica dust exposure in that cohort. Using the total number of silicosis cases reported to the New South Wales and Queensland state dust disease registers up to 30 June 2022 (277 and 368 cases, respectively), it can be expected there will be between 64 and 81 lung cancers caused by silica dust exposure in those two states alone. As noted in section 2.2.3.4 Predicted future cases of silicosis, a recent study from Curtin University predicted 10,390 Australians will develop lung cancer and up to 103,860 workers will be diagnosed with silicosis as the result of their current exposure to silica dust at work, while 100 lung cancers and 770-960 silicosis cases will be diagnosed due to silica dust exposure from engineered stone.<sup>10</sup>

Preventing exposure to silica dust from engineered stone products is the most effective way to prevent lung cancer, silicosis, and other silica-related diseases in the Australian engineered stone industry. The best way to achieve this is through the application of the hierarchy of control. Sitting atop the hierarchy of control as the most effective risk control measure is elimination. High silica content engineered stone is not manufactured in Australia and its use is not essential (it is a discretionary product). Eliminating (i.e., banning) the use of engineered stone is a practical and effective solution. It has been predicted that banning engineered stone would save lives by preventing approximately 100 lung cancers and 1000 silicosis cases in Australia.<sup>10</sup> Although engineering controls such as mandatory wet cutting and on-tool dust extraction would also save lives, a complete ban of engineered stone is clearly the most effective intervention. Therefore, we support a total ban in July 2024. We believe this is feasible, and further delaying this decision is increasing the number and likelihood of Australians being exposed to significant levels of this carcinogen and experiencing a debilitating and life-limiting lung disease.

In terms of the ban, Cancer Council agrees with and supports policy Option 6 as presented in section 4.8 of the Decision RIS. Specifically, we agree that modelling the ban on the use of engineered stone on Chapter 8 (Asbestos) of the model WHS Regulations is appropriate.

In terms of the definition of engineered stone in the model WHS Regulations, we support the following:

Engineered stone:

(a) means an artificial product that:

- (i) contains crystalline silica; and
- (ii) is created by combining natural stone materials with other chemical constituents such as water, resin or pigments; and
- (iii) undergoes a process to become hardened; but

(b) does not include any of the following:

- (i) concrete and cement products
- (ii) blocks, bricks, and pavers
- (iii) ceramic and porcelain wall and floor tiles
- (iv) roof tiles
- (v) grout, mortar and render
- (vi) plasterboard

We also agree with the requirement of a licence for PCBU's wanting to undertake exempt work with engineered stone as outlined in Option 4 of the Decision RIS.

## **CONSULTATION QUESTIONS**

In addition, please find below our comments relating to select questions from the Consultation Paper.

***Q1. Do you support a prohibition on the use of engineered stone? Please support your response with reasons and evidence.***

Yes, Cancer Council supports a prohibition on the use of engineered stone products in Australia for the following reasons:

- Silica dust generated from processing engineered stone is a carcinogen known to cause lung cancer.<sup>11</sup>
- Engineered stone currently in market has a silica content up to 95%. There is substantial evidence that the levels of respirable silica dust in workplaces where they cut and work engineered stone are extremely high and difficult to adequately control even when control measures such as wet cutting are used.<sup>1,2,3</sup>
- Workers processing engineered stone have developed silicosis that occurs earlier than with natural stone, progresses faster than would be expected given previous

experience with silica exposure in other workplace settings, and progresses even after removal from exposure.<sup>5,6</sup>

- The silicosis cases associated with the engineered stone industry are evidence that workers are being exposed to unacceptable levels of silica dust, levels that are also increasing workers' risk of developing lung cancer.
- It is a discretionary product that is not essential, with alternative products readily available.
- All disease attributed to engineered stone is preventable disease.
- Eliminating a hazard is the most effective and most reliable risk control measure, which is why it sits atop the hierarchy of control.<sup>12</sup>
- Banning engineered stone products will prevent an estimated 100 lung cancer and 1000 silicosis cases in Australia.<sup>10</sup>
- Therefore, prohibiting the use of engineered stone is the most effective intervention for preventing all silica-related disease arising from the Australian engineered stone industry.

***Q2. If yes, do you support a prohibition on the use of all engineered stone irrespective of its crystalline silica content? Please support your response with reasons and evidence.***

Yes, we support a prohibition on the use of all engineered stone products irrespective of its crystalline silica content.

As Safe Work Australia noted on page four of the Consultation Paper, we also are not aware of evidence that 40% crystalline silica content represents the threshold between lower risk and higher risk engineered stone products. Similarly, we agree with the fact that materials containing less than 40% crystalline silica pose a risk to workers' health, which is evident in the silicosis cases in stonemasons working with natural stone.

To the best of our knowledge, there is currently no evidence in the literature for a specific threshold percentage of silica in engineered stone that would adequately protect workers. Due to this uncertainty, we strongly recommend upholding the precautionary principle and implementing Option 1.

If a threshold percentage must be used, then we strongly recommend implementing a licensing scheme for PCBU's who will be working with engineered stone falling under the given percentage (i.e., Option 3).

***Q6. Do you have any data or information on the risks to workers from the other non-crystalline silica elements of engineered stone? Are these risks increased in engineered stone of less than 40% crystalline silica content?***

Although reducing the amount of crystalline silica in engineered stone is the dominant factor that needs to be controlled via a ban, there are also concerns regarding the resins and other constituents present in engineered stone products that are not present in natural stones. Resin content of dust emissions from engineered stone can range from 8 to 20%.<sup>13</sup> It has been suggested that the different chemical characteristics of resin-based engineered stone could play an important role in the toxicity of the dust and development of lung disease.<sup>6,14</sup>



Moreover, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons, and metals have been detected in samples of engineered stone benchtops, some of which have been described as causative of respiratory disease and lung inflammation.<sup>15</sup> These compounds can reach the lungs as part of the dust particles that are produced by processing engineered stone (e.g., cutting, grinding, drilling, polishing). Recent studies have shown VOCs are released when cutting engineered stone containing resins.<sup>16</sup>

The uncertainty surrounding what types of resins are used in engineered stone and the possible health effects of these resins and other compounds are further reasons for upholding the precautionary principle and implementing a ban. The onus is on the manufacturers of engineered stone to demonstrate beyond doubt that these products are safe for workers to handle.

**Q10.** *Should there be a transitional period for a prohibition on engineered stone? If so, should it apply to all options and how long should it be?*

No, we believe that there should not be a transitional period for a prohibition of engineered stone products and recommend an implementation date of July 2024. Cancer Council and other key health organisations and unions have been advocating for the consideration and implementation of regulatory bans on engineered stone products since 2019. We have previously supported this position on public record, for example, in our submission to the New South Wales 2021 Review of the Dust Diseases Scheme\*, stating that “We support a three-year phase out of manufactured stone, with a total ban in July 2024 or sooner.” This position was also stated in each of our submissions to the various rounds of consultation for the National Dust Disease Taskforce. If a ban had been considered at an earlier stage, then a transitional period could have occurred prior to the complete ban. However, too much time has now lapsed; the longer its implementation is delayed, the more workers who will be exposed to unsafe levels of silica dust, and the greater their risk of developing lung cancer and other silica-related disease.

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\*Submission available at:  
<https://www.parliament.nsw.gov.au/lcdocs/submissions/76636/0005%20Cancer%20Council%20and%20Lung%20Foundation%20Australia.pdf>



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