



# Workers short of breath and time

Submission by the Australian Council of Trade Unions to the  
Consultation Regulatory Impact Statement – Managing the  
risks of respirable crystalline silica at work

ACTU Submission, 15 August 2022  
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## Introduction

### Background

Since its formation in 1927, the ACTU has been the peak trade union body in Australia. There is no other national confederation representing unions. For 90 years, the ACTU has played the leading role in advocating in the Fair Work Commission, and its statutory predecessors, for the improvement of employment conditions of employees. It has consulted with governments in the development of almost every legislative measure concerning employment conditions and trade union regulation over that period.

The ACTU consists of affiliated unions and State and regional trades and labour councils. There are currently 43 ACTU affiliates. They have approximately 2 million members who are engaged across a broad spectrum of industries and occupations in the public and private sector.

The ACTU and affiliates have consistently raised concerns regarding the exposure of workers to harmful dusts, including submissions to the Senate Toxic Dust Inquiry in 2005.<sup>1</sup> The Inquiry's Executive Summary noted that:

*Many Australian workers have suffered potentially harmful exposure to toxic dust because of poor work practices and slow response by regulators. Identifying the extent of illness related to toxic dust is difficult because the datasets are not compatible and most rely on workers' compensation data. Workers' compensation data is limited in scope as it does not record work-related illness that is of less than five days duration and does not record unsuccessful claims.*

*Added to the limitations of the datasets is the impact of the long lag time for some dust related diseases to be diagnosed. This often means that disease is blamed on lifestyle factors such as smoking rather than workplace exposure to toxic dust. It is for this reason that the importance of regular health surveillance of employees, including lung function tests and X-rays, was emphasised in evidence.*

*The national occupational health and safety framework comprises Commonwealth and State and Territory legislation. While the regulatory system has been developed to ensure worker safety, some problems were identified including the timeliness of implementation of changes to the regulatory regime, the enforcement of regulations, particularly in small industries, and ensuring that all workers are aware of the dangers of exposure to toxic dust. There is also considerable debate about the national exposure standards for crystalline silica and beryllium with calls for the crystalline silica standard to be reduced by half and the beryllium standard to match that published in the USA.*

Its recommendations are alarmingly like the proposals of the 2021 National Dust Disease Taskforce and the NSW Parliamentary Review of Dust Diseases Scheme.<sup>2</sup>

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<sup>1</sup> Senate Community Affairs Committee Report Workplace exposure to toxic dust, 31 May 2006

<sup>2</sup> NSW Parliament Standing Committee on Law and Justice, 2021 Review of Dust Diseases Scheme, June 2022

Workers must not be left waiting for another 16 years before governments and those with control of workplaces adopt measures to protect their health.

The ACTU recommends that Safe Work Australia use the research findings of Professor Fritschi and Dr Renee Carey, *The future burden of lung cancer and silicosis from occupational silica exposure in Australia: A preliminary analysis, April 2022* (Curtin Report).

The predictions contained in the Curtin Report are the foundation of the ACTU response to the CRIS and consequently our response is brief.

### Notes

The ACTU supports submissions made by affiliate unions such as CFMEU Construction, The Australian Workers' Union and the Australian Manufacturing Workers' Union.

The ACTU draws Safe Work Australia's attention to the submissions made on behalf of the Cancer Council of Australia, the Australian Institute of Occupational Hygienists, and the Australian Institute of Health and Safety, amongst others.

The ACTU has not attempted to outline the scientific and medical research on the hazardous nature of respirable crystalline silica or the scope of illnesses it causes. The ACTU and affiliated unions have clearly outlined the problem in our responses to the National Dust Disease Taskforce. These are all publicly available.

## CRIS Assumptions

### Scope of the problem

It is troubling that the definition of the problem at chapter 2.1 - “*silicosis and other silica related diseases can be prevented by implementing.....*”<sup>3</sup> is not consistent with the objective of all of governments response to the National Dust Disease Taskforce (NDDT). The CRIS has ignored the Australian Governments support for the objective of the “*elimination of silicosis amongst workers and increased quality of life for those already impacted and their families*”.<sup>4</sup>

In their responses to the evidence, the National Dust Disease Taskforce and the NSW Parliamentary Inquiry into the Dust Diseases Scheme,<sup>5</sup> call for the prevention of silica related diseases, not the reduction of the number of cases.

The CRIS has used workers’ compensation data and cases of silicosis detected by state jurisdictions health screening programs (tables 6 and 7). This lag data is silent on the number of cases of other silica related illness and fails to predict future number of cases or any attributable fraction for all silica related diseases. A significant failing is the absence of an estimate for the number of lung cancers caused by exposure to RCS.

Dr Carey and Professor Fritschi from Curtin University have modelled the future number of cases of silicosis and lung cancer related to exposure to respiratory crystalline silica (RCS). The modelling predicts that for workers exposed to respirable crystalline dust in the year 2016, between 83,090 and 103,860 cases of silicosis will develop over their lifetime and 10,390 lung cancers.<sup>6</sup> The modelling is an underestimate, as it is based on exposures in one year, not over a full working life and uses data from 2016 which underestimates the number of workers involved in high-level exposure activities such as in tunnelling and the use of engineered stone. It also does not include future cases of other illnesses associated with exposure to RCS.

The report notes that:

*The greatest impact was seen from reducing exposure to RCS among workers in the construction industry to general population (background) levels (6,720 lung cancers and 52,730 to 74,500 silicosis cases avoided). The use of dust suppression on construction and mine sites was also predicted to be particularly effective, assuming it was used alongside well-fitted respiratory protective equipment, with 1,380 lung cancers and 11,010 to 13,760 silicosis cases estimated to be avoided. It should be noted that engineering controls alone are not sufficient to reduce exposure to RCS below the*

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<sup>3</sup> Page 27, CRIS

<sup>4</sup> Australian Government 2022, All of Governments’ Response to the Final Report of the National Dust Disease Taskforce

<sup>5</sup> Ibid

<sup>6</sup> Curtin Report is available here:

<https://research.curtin.edu.au/news/10000-aussie-workers-set-to-develop-lung-cancer-from-silica-dust-study/?type=media>

*relevant workplace exposure limits, and so these controls must be used along with well-fitted respiratory equipment in order to be effective.*

*A similar pattern was observed among interventions aimed specifically at engineered stone, with elimination of all exposure to engineered stone seen to be the most effective intervention (100 lung cancers and 770 to 960 silicosis cases avoided). Engineering controls, and specifically the use of on-tool extraction, was also estimated to be particularly effective when used alongside well-fitted respiratory equipment, with 50 lung cancers and 370 to 460 silicosis cases avoided. This is likely to reflect, at least in part, the very low level of baseline use of this control (2% estimated to currently always use on-tool extraction).<sup>7</sup>*

The CRIS would have considerably benefitted from the use of similar modelling rather than solely relying on incomplete lag indicators.

The submissions by the CFMEU Construction, AWU and AMWU all highlight the paucity of control measures in use in workplaces and the devastating impact on people's lives. The members of these unions all report a failure by employers/PCBUs to meet the basic requirements of Section 19 of the WHS Act and the WHS Regulations.<sup>8</sup> There is little evidence that sections 24 and 25 of the WHS Act are complied with or even targeted in regulator activities.

The ACTU submits that the evidence does not support the CRIS characterisation of the problem. A consequence of a narrow definition of the problem and inadequacies of the stated objective of government intervention is the overestimation of the effectiveness of Options 2 and 3.

### **Cost benefit approach used**

The CRIS has failed to estimate, based on current research, the numbers of workers who may develop complications and disease progression, even if exposure to RCS is ceased.

The CRIS acknowledges that the *“analysis is conservative and likely to underestimate the full costs to the Australian economy”*.<sup>9</sup> However, the CRIS then makes no attempt to provide indicative costs of consequences such as lung transplants, ongoing treatment for lung cancer, welfare support for people with chronic lung and autoimmune conditions or the lost income and for some sufferers the likely descent into poverty traps as the welfare and workers' compensation systems fail them.<sup>10</sup>

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<sup>7</sup> Ibid, page 11

<sup>8</sup> Section 19 requires, SFARP, provision of plant, work environment and safe systems of work and the provision of training and information to workers. The WHS Regulations require Air monitoring and health surveillance (Regs 50 and 368 etc). The burying of health monitoring requirements in the Hazardous Chemicals section of the WHS Regulations is totally unhelpful

<sup>9</sup> CRIS, page 50

<sup>10</sup> Recent research outlines the failings of income support systems for those unable to participate in work due to ill health/injury ([cp-pillar-one-report-snapshot.pdf \(comcare.gov.au\)](https://www.comcare.gov.au/cp-pillar-one-report-snapshot.pdf))

The CRIS uses a multi-criteria analysis (MCA) to assess the administrative costs to industry and government. It is unclear why no assessment is made of the costs of the base option i.e., maintaining the status quo. This is disturbing, as evidence presented in the CRIS (and replicated in jurisdictional reviews)<sup>11</sup> highlights the low level of compliance in particularly the engineered stone sector, despite an increased focus by health and safety regulators. It would not be unreasonable to predict that failures to control exposures may increase with decreased regulator focus.

A breakeven analysis (BEA) attempts to quantify the economic cost of each case of silicosis and estimates the number of cases of silicosis which would need to be avoided under each option. The ACTU is unconvinced that the BEA is an appropriate methodology. The ACTU acknowledges that this method is used in the Deloitte RIS for the Victorian Crystalline Silica Regulations<sup>12</sup> but unlike the Deloitte publication, the CRIS does not clearly articulate the limitations of the approach or stipulate in clear terms that:

*“This is a conservative estimate, which is explained in further detail below” and “Anecdotally, the average age of silica-related injuries and fatalities is decreasing as the use of higher silica-content stone is used. This means that the total value of life saved is increasing, as an individual must live with a diagnosis for longer and possibly experience an earlier death. However, this pattern is not yet clear in the data due to some incidents not yet recorded and the lag between reporting an injury and the associated fatality. The impact of this is therefore noted, but not captured quantitatively, meaning that the estimate of benefits might be conservative.”<sup>13</sup>*

The CRIS does not attempt to address diseases other than silicosis associated with silica exposures or the costs on health and workers’ compensation systems resulting in a significant underestimate of the benefits of prevention.

The ACTU assumes that the costings provided in the CRIS are correct. The CRIS predicts that less than 5 silicosis cases need to be prevented for Option 5b to break even. The Curtin modelling predicts at a minimum 50,000 cases could be avoided over a lifetime (80 years). Assuming that using simple arithmetic is valid, that is 650 silicosis cases a year that could be avoided. The “costs” to government and industry are dwarfed by the costs to workers, their families and our health and welfare systems.

The CRIS “rules out” any consideration of a ban on importation of engineered stone or improving the method of worker health surveillance on spurious administrative grounds.

The use of the example of the prohibition on the use of asbestos containing materials is curious. Whilst importation bans are not within the scope of WHS law, the prohibition of the use of high silica content engineered stone is consistent with other provisions in the WHS laws i.e., the

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<sup>11</sup> E.g. Deloitte 2021 occupational health and safety amendment (crystalline silica) regulation 2021, charts 2.6 and 2.7

<sup>12</sup> Ibid section 4.4

<sup>13</sup> Ibid pages 47 and 48

prohibition of use of ACM, the prohibition of use of specific carcinogens in Schedule 10 of the WHS Regulations. The failure of the CRIS to consider elimination, the highest order of risk control is contrary to the objects of the WHS Act and the provisions of WHS Regulations. The hierarchy of control is a step wise approach to risk control. After elimination comes substitution – no attention has been given to this option – including the benefits to Australian business by increased use of local products and less reliance on overseas manufacturers and suppliers. At least one of those, Caesarstone, is claiming an inability to obtain liability insurance for their products.<sup>14</sup>

Given the toll from work with high silica content engineered stone and the obligations under WHS/OHS laws it is curious indeed that the CRIS dismisses this option.

The NDDT, which has been endorsed by governments, stated that the RIA must consider “*Strengthening the health monitoring requirements include contemporary methodologies such as low dose high resolution computerised tomography (HRCT) scans, and to cover all workers at risk of exposure to respirable crystalline silica*”. The task of the CRIS is to assess regulatory and non-regulatory options. The CRIS should have considered options on how to improve the use and viability of the *National Guidance for Doctors Assessing Workers Exposed to RCS*.

### Options canvassed in the CRIS

The CRIS characterisation of the benefits of Option 2 are very questionable. The CRIS asserts that the SWA *Clean Air, Clear Lungs* campaign was a successful campaign. However, no information is provided to support that assertion. The ACTU is unaware of any analysis, other than website hits, of the success or otherwise of the campaign which was ceased in December 2021. The 12 recommendations of the NSW Parliamentary Inquiry<sup>15</sup> do not mention awareness campaigns, instead calling into question SafeWork NSW oversight of work with engineered stone<sup>16</sup>. SafeWork NSW conducted awareness campaigns in 2018, 2019 and 2020.

As noted in the AMWU submission, “*Mirroring failure as a means of delivering consistency should not be considered in the same light as delivering the necessary work health and safety reform to protect workers*”.<sup>17</sup>

The CRIS asserts that Option 3 is based on the recent amendments of the Victorian Crystalline Silica Regulations 2021.<sup>18</sup> Option 3 is a very truncated version of the Victorian regulations which include more requirements than those listed in Option 3 – for example, manufacturers to provide information including on risk controls; provide a silica control plan (not limited to construction

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<sup>14</sup> Page 52 transcript of proceedings 16/2/22 NSW Legislative Council Standing Committee Report on the 2021 Review of the Dust Diseases Scheme, see <https://www.parliament.nsw.gov.au/lcdocs/transcripts/2780/Transcript%20-%20CORRECTED%20-%20Dust%20Diseases%202021%20-%2016%20February%202022.pdf> .

<sup>15</sup> Ibid

<sup>16</sup> Ibid, Chair’s foreword, page ix. See also CFMEU Construction submission

<sup>17</sup> AMWU Submission CRIS July 2022

<sup>18</sup> Victorian Occupational Health and Safety Amendment (Crystalline Silica) Regulations 2021



work); requirement for identification and risk assessment and a licensing system for engineered stonework.

Option 3 is much better described as a consolidation of current WHS Regulation requirements, which have clearly not provided the protection that workers are entitled to.<sup>19</sup>

As acknowledged in the CRIS, Option 4 “*will not address the risks of silicosis and other silica related diseases for workers in other industries....*”.<sup>20</sup> Importantly this statement highlights the deficiencies in focussing solely on one source of dust related disease. Additionally, the emphasis on RCS is welcomed but fails to address other harmful dusts generated during work.

Options 5a and 5b provide the basic framework for regulation of silica exposures but omit any reference to proactive provision of information and training to workers in high-risk silica occupations.

## Responses to specific questions contained in the CRIS

### 2.1 Do you agree with the identified problem? Has the entirety of the problem been identified?

The extent of exposures and the failures in current risk control measures has been underestimated. The Curtin Report modelling estimated, based on exposures in 2016, between 83,000-103,000 cases of silicosis and 10,300 cases of lung cancer. The modelling acknowledges that this is an underestimate.

### 2.2 Do you have further information, analysis or data that will help measure the impact of the problem identified?

There is significant medical evidence that the prevalence of silica related ill health is under recognised<sup>21</sup> and that there is a significant deterioration in health following cessation of exposure to RCS – for example, the Spanish study (one of the first countries to report acute silicosis with engineered stonework) showed 56% of workers disease progressed and 30% developed progressive massive fibrosis.<sup>22</sup>

### 3.1 Do you agree with the case for government intervention? Please provide evidence to support your position.

The evidence is ample – PCBUs, including those that import and supply high content engineered stone, have failed to protect workers from RCS. In 2018 the AESAG promoted guidelines for

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<sup>19</sup> See above and union submissions

<sup>20</sup> CRIS, page 32

<sup>21</sup> Seevnrain K et al, Case series analysis of eight underground tunnellers with chronic silicosis in Queensland, 2021

<sup>22</sup> Leon-Jimenez, Artificial Stone Silicosis - Rapid Progression Following Exposure Cessation, Chest 2020

fabricators when working with engineered stone.<sup>23</sup> Those guidelines were published after Australian medical experts had highlighted the problem, not when the industry became aware of the problem which according to industry reports was in 2008. Caesarstone Pty Ltd Australia is a member of the AESAG.

The industry is profitable<sup>24</sup> and it is clear from interventions overseas,<sup>25</sup> that the engineered stone industry has been aware of the risks associated with their product. Caesarstone's annual report acknowledges this:

*Since 2008, we have been named, either directly or as a third party defendant, in numerous lawsuits alleging damages caused by exposure to RCS related to our products filed by individuals (including fabricators and their employees, and our former employees)....<sup>26</sup>*

In 2019, the AESAG applied to the ACCC<sup>27</sup> for a self-regulatory approach, but later withdrew their application.

The case for government intervention is blatantly clear when capital and market forces abandon any pretext of responsibility for their product. This is exemplified in the Caesarstone 2021 Annual Report which notes:

*If we are unable to renew our product liability insurances at all or in part, if we cannot obtain insurance on as favorable terms as previously, or if our insurance is terminated early, decreased, provides inadequate coverage or if we are subject to silicosis related claims Excluded by our product liability insurance policy or by our employer liability insurance policy, we may incur significant legal expenses and become liable for damages, in each case, that are not covered by insurance. For example, as of September 2020 our Australian product liability insurance ceased coverage of newly diagnosed silicosis related claims.<sup>28</sup> (underlining added)*

## Other industries

Evidence provided in the AIOH CRIS Submission and surveys conducted by unions<sup>29</sup> outside of engineered stone describe the failures of duty holders to comply with current laws. Health and

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<sup>23</sup> Australian Good Practice Guide for fabrication of engineered quartz surfaces, Australian Engineered Stone Advisory Group, 2018

<sup>24</sup> The 2020 Annual Report by Caesarstone notes that: *In 2020, 44.3% of our revenues were denominated in U.S. dollars, 8.4% in NIS, 6.8% in Euros, 14.9% in Canadian dollars, 21.3% in Australian dollars.....(page 6) and: In 2020, sales in the United States, Australia (including New Zealand), Canada and Israel accounted for 42.7%, 21.3%, 14.9% and 8.4% of our revenues, respectively"... page 13*

<sup>25</sup> The plot thickens around Silicosis in Guernica, Gorospe, Pedro. El País: Madrid 29 May 2011: 5

<sup>26</sup> Annual Report Caesarstone [https://s23.q4cdn.com/225400014/files/doc\\_financials/2021/ar/dac363be-01d1-48ce-bca2-d1f17603ea1f.pdf](https://s23.q4cdn.com/225400014/files/doc_financials/2021/ar/dac363be-01d1-48ce-bca2-d1f17603ea1f.pdf) page 15

<sup>27</sup> Australian Engineered Stone Advisory Group's application for authorisation AA1000461, ACCC, 5/12/2019

<sup>28</sup> Annual Report Caesarstone, page 16

<sup>29</sup> See AMWU and AWU Submission to CRIS. Evidence contained in submissions to previous inquiries:

<https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=2833#tab-submissions>

Safety regulators have consistently found duty holders breaching their duties and some report continued breaches after multiple visits.

The ACTU has made previous submissions which outline the continued failure of the current approach.<sup>30</sup>

### **3.2 Do you agree with the objectives of government intervention? Please provide evidence to support your position**

As discussed above, the CRIS stated objective of government intervention is at odds with the *All of Governments' Response to the Final Report of the National Dust Disease Taskforce* and the objects of the WHS Act which includes section 3.(2):

*“In furthering subsection (1) (a), regard must be had to the principle that workers and other persons should be given the highest level of protection against harm to their health, safety and welfare from hazards and risks arising from work or from specified types of substances or plant as is reasonably practicable”.*

The objective of government intervention must be the elimination of silicosis which can be achieved using the hierarchy of risk control, which includes elimination of exposure to RCS, where this is reasonably practicable. The test of reasonably practicable is an objective test and includes *the cost associated with available ways of eliminating or minimising the risk, including whether the cost is grossly disproportionate to the risk.*

Engineered stone products, like all fashion items, are a product of marketing and promotion to create consumer demand. There are many substitutes available from which to manufacture bench tops.

#### **4.1 Do these options address the problem? Please provide evidence to support your position.**

The non-regulatory options are narrow without even a mention of the simultaneous drafting of a National Silicosis Prevention Plan or consideration of a broad holistic approach which draws on the experience of all disciplines and stakeholders. We must explore options for creation of an independent, transparent, and multidisciplinary body to oversee the effectiveness of the regulatory response.

The key point is that silica related disease is entirely preventable and as a community we should never have been in this place with a significant increase in the numbers of people experiencing avoidable ill health. The current approaches have demonstrably failed.

#### **4.2 Are there any other non-regulatory or regulatory options you think should be considered to address the problem?**

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<sup>30</sup> ACTU submissions to Silica WES 2019, ACCC 2019, NDDT 2020 and 2021

There is currently a lack of research and expert advice in national health and safety structures. The failure of a national health and safety policy response to the silicosis crisis can in part be explained by the lack of independent expert advice. The National Silicosis Prevention Strategy may provide some guidance on structural change to address the problem.

The lack of exchange of information and expertise is also demonstrated by the lack of engagement of the Department of Health with representatives of workers or sufferers of silicosis. The National Dust Disease Taskforce did not include a worker representative or sufferer. Additionally, the Department of Health Committee responsible for the National Silicosis Registry and the guidelines for doctors on silica have not consulted with or engaged with worker representatives.

The preponderance of “silos” and the ignoring of workers’ voices will perpetuate current failures.

The ACTU and affiliates continue to support the lowering of the WES for RCS. SWA does not appear to have proposed a timetable for review of the decision to maintain the 0.05mgm/m<sup>3</sup> exposure standard.<sup>31</sup>

The CRIS has failed to note or consider the ACT Governments introduction of mandatory silica awareness training.

**6.1 Is the cost modelling methodology appropriate to estimate the costs to industry and governments (Appendix D)? Please provide evidence to support your position.**

The false assumptions made with regards to costs to governments is absurd when noting work health and safety regulatory costs in Australia are mainly recovered from industry, not from taxpayer or government revenue.

**6.2 Are the estimates of the number of businesses covered by each of the regulatory and non-regulatory options accurate? Please provide evidence to support your position.**

Carey and Fritschi<sup>32</sup> used a novel approach to the prediction of future burden of disease and the effectiveness of risk control measures. Their report does not assume, as does the CRIS, that all workers have the same level of exposures. This is important as the estimated number of workers requiring health monitoring and hence the cost to business may have been overestimated.

**6.5 Do you have further information regarding the costs to the public health system for silicosis and silica related diseases?**

The CRIS has noted that of 4,743 workers screened, approximately 11 per cent received a positive diagnosis of a silicosis or silica related disease because of workplace exposure to RCS, yet the cost analysis makes no mention or use of these figures.

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<sup>31</sup> <https://www.safeworkaustralia.gov.au/safety-topic/hazards/crystalline-silica-and-silicosis/research-lower-workplace-exposure-standard-respirable-crystalline-silica-0>

<sup>32</sup> Ibid

A simple internet search provides information on the costs:

- in 2004 the cost of performing a lung transplant was between \$70,000 and \$100,000 per patient (WA health media release)
- caring for one case of lung cancer cost about \$50,000 per year in 2020 – estimate by NSW Cancer Council which also noted that healthcare for lung cancer is the third most costly in Australia.

The CRIS is totally silent on the costs of the removal, remodelling and renovation of buildings which contain engineered stone. Given the extensive uptake of these products there will be a problem of legacy engineered stone products, just as we have with ACM. The clean-up costs, waste disposal etc, have been completely ignored.

## **7.2 Are there any significant barriers to implementation of the options presented? What are those barriers? Is there a cost associated with them? How could they be overcome?**

The political unwillingness and a lack of a sense of urgency regarding the control of exposure to RCS pervades the response.

The time for action is well overdue – despite the evidence produced in the 2005/6 Senate inquiry into Toxic Dust, government inquiries into dust exposures in mining during the last decade, the National Dust Disease Taskforce first report tabled in 2020, the 2021 NSW Parliament inquiries into Dust Diseases and the Queensland health and safety regulator updated its report *Occupational dust and silica conditions in some Queensland construction and related industries* in August 2013, there has been little national leadership provided to address the problem.

### **Preferred Options**

The CRIS presents a list of Options, which should not be mutually exclusive. The impact analysis in Chapter 6 is limited to individual options only.

All regulatory frameworks must be accompanied by education and awareness programs.

Information, training, and education are essential to highlight the necessity to control exposures to RCS and all the health outcomes of the failure to do so.

The research is clear that multifaceted approaches are required for the prevention of occupational diseases:

*Our principal findings included: legislation and regulations can be an effective means of primary prevention, but their impact depends on both the nature of the regulations and the degree of enforcement; measures across the hierarchy of controls can reduce the risk of some of these diseases and reduce exposures; monitoring, surveillance, and screening are effective prevention tools and for evaluating the impact of legislative/policy change; the effect of education and training is context-dependent and*

*influenced by the manner of delivery; and, multifaceted interventions are often more effective than ones consisting of a single activity.*<sup>33</sup>

The ACTU has consistently argued for regulations that:

1. Require the use of the hierarchy of control (WHS Reg 36) to eliminate or minimise so far as reasonably practicable exposure to RCS
2. To achieve that objective, two separate regulations are required:
  - a. Specific regulations for control of exposure from use of engineered stone
  - b. Generic regulations for all high-risk silica processes.

Specific Regulations for engineered stone use must include:

- a licensing system for all businesses using high silica content engineered stone
- preparation for a ban on the importation and use of high silica content engineered stone.

Dry cutting must be prohibited when using engineered stone.

The current evidence is that even with on tool extraction and wet methods, the RCS generated during fabrication leads to hazardous levels of RCS.<sup>34</sup> The findings that one in four stonemasons using engineered stone have contracted silicosis is ample evidence of the total failure to protect workers by the current approach. This is equivalent to 1 in 4 workers who work from heights falling and sustaining an injury which clearly would not be accepted.

#### Generic Regulations

As silica is found in the natural world and is an essential component of many construction materials it is not possible to eliminate RCS from the work environment. However, minimisation of exposures using the hierarchy of control is practicable with numbers of engineering controls available for specific circumstances.

The case for control measures is made by the Curtin University modeling and various scientific reports that describe exposures when adequate controls are not applied. Some of these are summarised in the CRIS:

*The Australian Institute of Occupational Hygienists (AIOH) has confirmed that common tasks in the manufacturing, demolition, construction, tunnelling and quarrying industries can result in exposure to RCS in excess of the WES (AIOH 2021).*

*This is supported by historical data supplied to the Queensland inquiry into occupational respirable dust issues in 2017 showing exceedances of the then WES (0.1 mg/m<sup>3</sup> 8-*

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<sup>33</sup> Keefe AR, Demers PA, Neis B, et al. A scoping review to identify strategies that work to prevent four important occupational diseases. Am J Ind Med 2020;63(6):490-516.

<sup>34</sup> Page 20, CRIS

Data taken from an engineered stone fabrication workshop showed that all areas of the premises, including areas that were not used for processing of engineered stone, had airborne concentration levels of RCS well in excess of the current WES. This indicates that any persons working near areas where engineered stone is processed may be exposed to hazardous levels of RCS, regardless of their role (Jennings 2021).

hour TWA) across a range of construction operations. This report also recorded WES exceedances in the tunnelling and ferrous foundry industries (Queensland Parliament Coal Workers' Pneumoconiosis Select Committee 2017). Personal air monitoring has also revealed that common tasks involved in engineered stone manufacturing (Gaskin et al. 2018) and stonemasonry (Alamango et al. 2015) can expose workers to RCS at levels above the current WES if effective engineering controls (e.g., water suppression and local exhaust ventilation) are not in place.

Similarly, a study of 47 individual stone and quarry workers, not using adequate engineering controls, revealed that one in four workers were exposed to levels of RCS above the then WES (0.1mg/m<sup>3</sup> 8-hour TWA), and more than one in ten were exposed to concentrations double that of the WES (Hedges 2016). A study of workers in the demolition sector also revealed exposures in some groups of workers were in excess of the then WES (0.1 mg/m<sup>3</sup> 8-hour TWA), prior to the introduction of additional control measures including misting dust suppression, dust extraction, and greater management of respirator fit testing (Cole & Fisher 2019). Although there are few published studies about the Australian construction industry, uncontrolled cutting of concrete is relatively common. In one study, it was shown that six minutes of uncontrolled concrete cutting would greatly exceed the current WES even if it was the worker's only exposure to RCS in the workday (Brooks & Rae 2021). Workers who are not directly involved with tasks that produce RCS may still be exposed. This includes administrative staff, cleaning staff and other support staff who are located near sites where RCS is produced.

However, the CRIS does not highlight that these studies generally refer to WES of 0.1 mgm/m<sup>3</sup>, whereas the current WES is 0.05 mgm/m<sup>3</sup>. Applying the recently improved WES to the quoted studies would increase the number of workers at risk. The CRIS does not refer to the SWA Draft Evaluation report for RCS (2019) that notes that chronic exposures to concentrations of 0.05 mg/m<sup>3</sup> are associated with a risk of 5-10 % for silicosis – that is, 1 in 10 or 1 in 20 workers will develop a disabling and potentially fatal disease.

The ACTU supports a generic regulation which:

- requires PCBUs to inform workers of the dangers of high-risk silica work – similar to the requirements in the lead regulations
- defines work/industries where mandatory silica training of workers is required
- defines high risk silica processes
- requires the development of a risk control plan for high-risk silica processes
- requires the application of higher order controls and a combination of controls to all high-risk silica processes, e.g. wet methods, ventilation etc
- rules out the use of PPE as the sole control measure used
- requires documentation of risk assessment which supports the control plan
- requires the provision of silica exposure information and training to workers in high risk silica industries
- requires the active participation of HSRs and workers in deciding upon the use of risk control methods to be used
- requires regular reporting of air and health monitoring results to the relevant H&S regulator.

In summary our position is:

- Option 5b supplemented by clearer requirements regarding training and information provision to workers and the progressive application of the hierarchy of control ensuring that PPE is not the sole control measure used **and**
- Option 4 – licensing system for engineered stone **and**
- A planned approach to the banning of use and importation of high silica content engineered stone **and**
- Option 2 – national awareness and behaviour change initiatives to inform and publicise the content and requirements of the combined Options 5b, 4 and planned approach to the banning of use and importation of high silica content engineered stone.

### Summary

The Consultation Regulatory Impact Statement has failed to model the full extent of exposures and hence illnesses due to respirable crystalline silica. The ACTU urges Safe Work Australia to use the estimates provided in the Curtin Report.

The recent release of insurer IAG FY22 Report highlights the imperative of acting. IAG reports *“around \$45 million of the commercial liability \$168 million strengthening relates to silicosis exposures. The recent adverse experience from the 2017 and 2018 accident years has been assumed to continue into later accident years”*. IAG have refined their *“pricing and underwriting to mitigate future impacts of a range of issues, including silicosis and work injury”*.<sup>35</sup>

The dismissal of the options for banning the use of engineered stone and use of high-resolution Computerised Tomography is most regrettable.

The ACTU strongly recommends that the Options are considered together and a generic regulation for the control of exposures to RCS, supplemented by specific actions to improve worker training and the removal of high silica content engineered stone products from our workplaces and the built environment are adopted.

As mentioned above our position is:

- Option 5b supplemented by clearer requirements regarding training and information provision to workers and the progressive application of the hierarchy of control ensuring that PPE is not the sole control measure used **and**
- Option 4 – licensing system for engineered stone **and**
- A planned approach to the banning of use and importation of high silica content engineered stone **and**

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[https://www.iag.com.au/sites/default/files/Documents/Results%20%26%20reports/IAGL\\_FY22\\_Appendix\\_4E\\_Annual\\_Report.pdf](https://www.iag.com.au/sites/default/files/Documents/Results%20%26%20reports/IAGL_FY22_Appendix_4E_Annual_Report.pdf) page 12 of 126



- Option 2 – national awareness and behaviour change initiatives to inform and publicise the content and requirements of the combined Options 5b, 4 and planned approach to the banning of use and importation of high silica content engineered stone.

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