
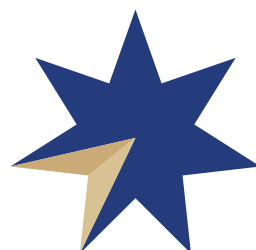


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Safe Work Australia CRIS: Managing the risks of respirable crystalline silica at work

August 2022



Australian
Chamber of Commerce
and Industry

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1 Introduction

The Australian Chamber of Commerce and Industry (ACCI) and our member network strongly supports additional work being undertaken on silica related exposure risks and we acknowledge the concerning rates of preventable lung disease caused by uncontrolled dust exposure, particularly when working with engineered stone.

ACCI is a member of Safe Work Australia and its Strategic Issues Group – Work Health and Safety (SIG-WHS), which has oversight of the development and evaluation of the Model Work Health and Safety (WHS) Laws. ACCI has participated in discussions surrounding the development of the model Code of Practice for engineered stone, model guidance and amendments to the regulations around the prohibition of dry-cutting of engineered stone. We support SWA in taking positive and risk proportionate steps to ensure the protection of workers exposed to silica dust.

In considering any additional regulatory and non-regulatory responses, decision makers must be provided with a full understanding of the costs and benefits of the options proposed and have sufficient evidence that implementation of any options will achieve the desired outcomes.

In preparing this submission, ACCI consulted with members of our Silica Reference Group which include Chambers of Commerce and Industry and Industry Associations across construction, manufacturing, quarrying, mining and tunnelling and demolition and undertook a business survey within this network.

ACCI and our members support Option 2.

We provide in this submission our rationale for rejecting Option 3, 4, 5a and 5b as currently drafted and provide alternative drafting so that elements of the options may be workable depending on how consultation progresses.

Given the complexity of some of the proposed options such as Option 3 and 5, ACCI and our members would appreciate the opportunity to further consult with SWA prior to the development of the Decision RIS.

We would also note that a considerable part of our submission is focused on the cost analysis methodology which we have a number of concerns with and do not believe accurately represents the costs industry would incur for options 3 – 5.

1.1 Problem statement

The CRIS presents the following problem statement which has been developed following preliminary consultation with stakeholders:

Workplace exposures to RCS have led to a substantial increase in the number of cases of silicosis in Australian workers. Health screening programs of **stonemasons and engineered stone** workers in several Australian states have identified that approximately 1 in 4 workers screened have evidence of silicosis.

Silicosis is an irreversible and debilitating disease, largely caused by workplace exposure to RCS. The National Dust Disease Taskforce noted that silicosis is “entirely preventable”, largely driven by the increase in use of **engineered stone** in Australia. They also noted that “... every case of silicosis affecting a **stone benchtop worker** is evidence that businesses, industry and governments need to do more to recognise and control the risks of **working with engineered stone**”. Silicosis, and other silica related diseases, can be prevented by implementing effective controls to eliminate or minimise the generation of and exposure to RCS at the workplace.

ACCI agrees with the problem statement as articulated above noting the emphasis on engineered stone workers and given the significant risk and demonstration of poor compliance activities for stonemasons and fabricators.

Following this problem statement the CRIS then expands its focus to several industries including construction, manufacturing, quarrying, mining, tunnelling and demolition. We do not agree that sufficient evidence has been presented to indicate a significant problem within these other industries such that government regulatory intervention is needed to the extent that some, or a combination of the Options would propose.

2 Response to CRIS Options

Summary table of ACCI's position on options in the CRIS.

Options	Commentary
Option 1	Presented as the base case. We do not agree that Option 1 represents a base case and propose an alternative Option 1a and 1b.
Option 2	Support
Option 3	Do not support Option 3 as proposed. Option 3 will incur additional industry costs and these must be calculated in an updated cost benefit analysis. We propose an alternative Option 3 that would meet the intent of only clarifying existing obligations and, in the event that a new definition for high risk silica work is supported by the majority of stakeholders we provide alternative drafting.
Option 4	Do not support Option 4.
Option 5a/5b	Do not support Option 5a or 5b. The focus should be on the adoption of known controls by the industry, rather than documentation of control statements. The development of targeted guidance material that outlines the known risk controls for specific types of work involving crystalline silica is recommended.

2.1 ACCI Silica Survey

In order to provide current data when responding to the CRIS options or assumptions, ACCI ran a silica business survey in partnership with several industry associations and chambers representing construction, manufacturing, quarrying, tunnelling and mining sectors from 1st August until 12th August.

There were a total of 86 respondents with a good distribution sample by business size and location as seen below.

Chart 1: Business survey responses by size of business.

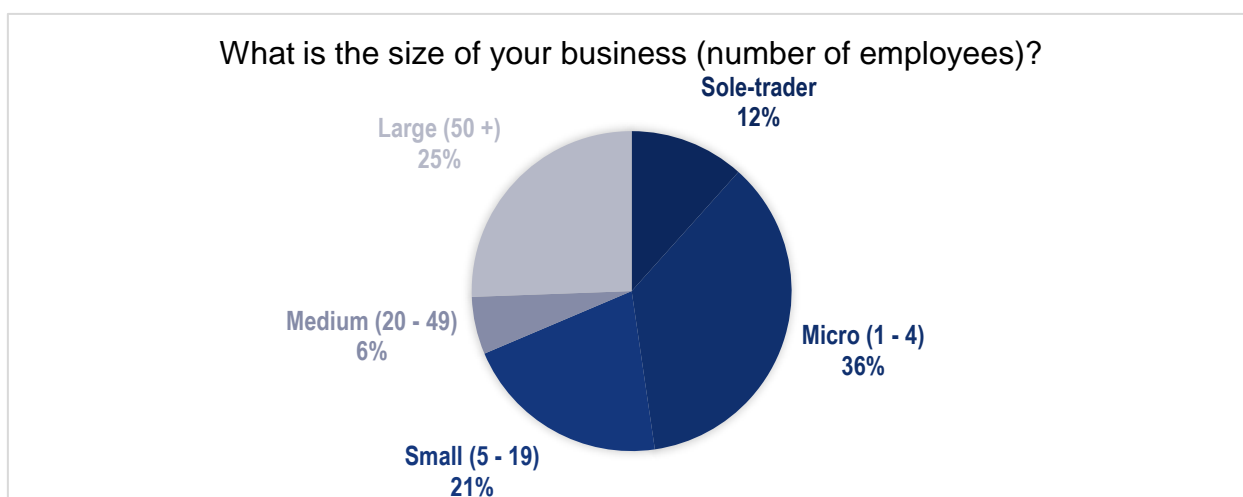
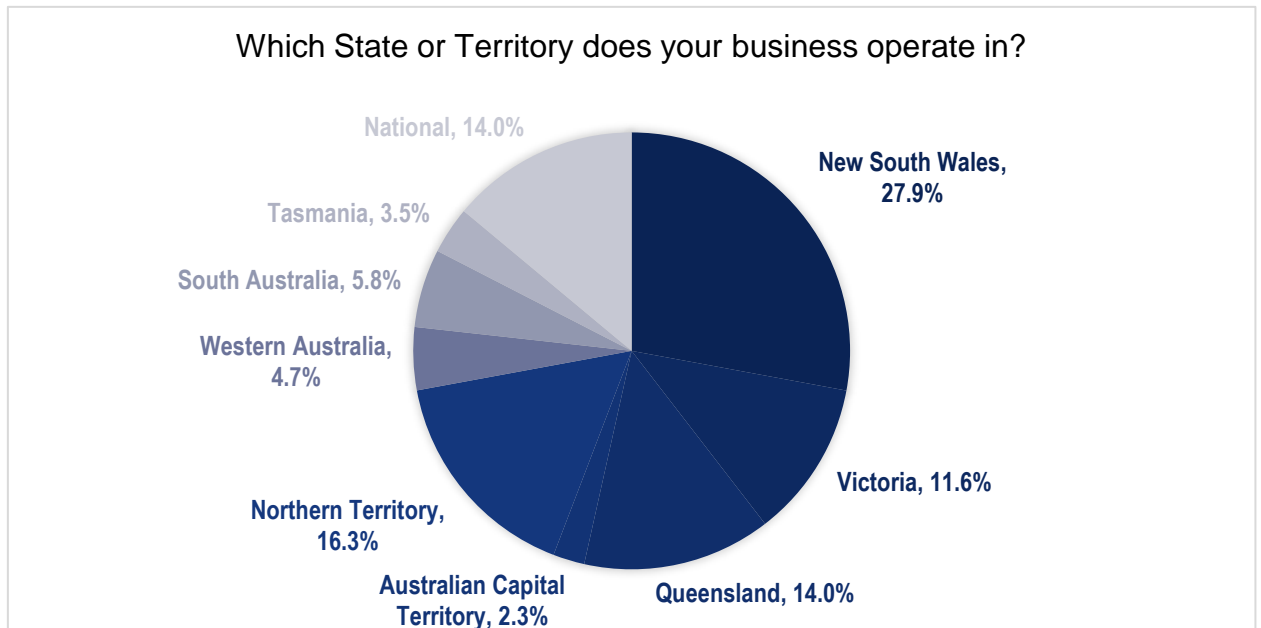


Chart 2: Business survey responses by state or territory of business operation.



2.2 Option 1: Base Case

Do not support Option 1 as is as the 'base case'.

We propose that Option 1 should be split into Option 1a and 1b whereby option 1a articulates the true base case of only existing duties and fully implemented activities and option 1b covers those regulatory changes or activities that have been agreed but not yet implemented.

1A = Existing regulatory requirements and initiatives under model WHS legislation.

1B = Regulatory changes and initiatives that are underway but not yet implemented fully e.g., implementation by jurisdictions of the model engineered stone code, amendments to the model regulations prohibiting the uncontrolled processing of engineered stone and implementation of the model silica containing materials guide by jurisdictions.

The base case presented in the CRIS includes the existing duties under the model WHS Act, model WHS Regulations and relevant model Codes of Practice. It goes on however to include measures that have yet to be fully implemented, such as:

- the implementation of the model Code of Practice: Managing the risks of respirable crystalline silica from engineered stone in the workplace (Safe Work Australia 2021a) in all states and territories covered by the model WHS laws apart from Queensland, and
- amendments to the model WHS Regulations prohibiting uncontrolled processing of engineered stone, so clarifying existing duties under the model WHS laws.

In the analysis of Option 1, it indicates that this option is proposed as a comparative base case for articulating the status quo and would impose no additional costs to industry or government.

We would argue that in presenting a 'status quo' option, only existing legislation and regulatory activities should be captured. Any regulatory changes or activities that are yet to be implemented should form a separate option given the anticipated behavioural and compliance change activities industry is expected to undertake.

We also note that the proposed regulation for the prohibition of uncontrolled processing of engineered stone will result in additional costs to industry once implemented as it goes beyond clarifying existing duties by prescribing processes covered and controls.

Table 1: Summary table of proposed regulatory changes and initiatives yet to be agreed and fully implemented by jurisdictions

Agency	Activity	Status	Comments
SWA	New Regulations Drafting instructions for the prohibition of uncontrolled processing of engineered stone have been provided to PCC. This is an action following WHS Ministers agreement with the SWA Members decision to: a) progress amendments to the model Work Health and Safety (WHS) Regulations to include a prohibition of uncontrolled processing of engineered stone products b) that the amendment regulation include the definition of engineered stone as is drafted in the model Code of Practice (paragraph 9) c) that processes covered by the amended regulation are those described in paragraph 10 d) that the controls in the amendment regulation are those described in paragraphs 11 and 13 e) that the amendment should prescribe a penalty of \$6 000 in the case of an individual and \$30 000 in the case of a body corporate.	In progress – drafting of Regulations.	Once the draft Regulations are published, for the amendments to become law each jurisdiction must amend their WHS Regulations. Jurisdictions would provide appropriate communication to stakeholders advising them of this change and any planned compliance and enforcement activities relating to this.
SWA	Codes of Practice: Engineered Stone	Draft complete and published. Implementation known: <ul style="list-style-type: none"> NSW TAS WA 	Unclear which other jurisdictions will implement the model Code.
SWA	Guides: Publication and translation of the guide: Working with silica and silica containing products: In February 2022, the Agency published a revised version of the guidance on Working with silica and silica containing products. The guidance is currently being translated into Vietnamese, Chinese (Traditional and Simplified), Greek, Italian and Arabic. Translation of the guides will be completed in June 2022. Safe Work Australia also recently revised its guidance on health monitoring , including publication of guides on Health	Draft Complete and published.	Unclear which other jurisdictions will implement the guides.

	monitoring: Guide for crystalline silica (Safe Work Australia 2020c), and Health monitoring: Guide for registered medical practitioners (Safe Work Australia 2020d).		
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It is considered that for the final Decision RIS a more robust analysis should be undertaken for our articulated Option 1b on the regulatory changes and initiatives already progressed and those not yet fully implemented.

It is recognised that these additional measures may lead to improved safety outcomes in relation to general awareness and work managing RCS dust risks, particularly for work involving engineered stone given the strong focus on this product.

2.3 Option 2: National awareness and behaviour change initiatives to minimise the risks of RCS exposure

Support Option 2.

National awareness and behavior change initiatives targeted to workers, PCBU's and other duty holders in the construction, manufacturing, demolition tunnelling, quarrying, and mining industries.

In addition to the WHS Regulator education activities articulated in the CRIS in section 1.4.6, ACCI's member industry associations have undertaken a broad range of activities over the past 3 years to keep industry informed about the risks of crystalline silica and the suitable control measures that need to be applied to prevent exposure of workers to RCS.

Option 2 proposes national awareness and behaviour change initiatives focussed on duty holders in the construction, manufacturing, tunnelling, quarrying, demolition and mining industries and their compliance with the model WHS laws. The initiative would specifically seek to improve:

- duty holders' understanding of the risks associated with exposure to RCS
- knowledge of PCBU's on how and when to conduct a risk assessment, control risks and consult with workers, and
- awareness and compliance of workers, PCBU's, and other duty holders with the requirements of the model WHS laws.

It is encouraging to us that in the most recent survey ACCI conducted with members across construction, manufacturing, tunnelling, quarrying, demolition and mining industries, general awareness of the health hazard posed by exposure to RCS was high within the sample group (86 respondents) with over 90% indicating they are aware of the impact silica can have on health if the risk of exposure is not effectively controlled.

There also seemed to be an improvement in the awareness of different types of silica containing materials with 81% of respondents 'very sure' or 'fairly sure' they could identify silica containing materials.

Given the improvement in awareness of risks seen following the Clean Air. Clear Lungs general campaign and industry and regulator activities in targeted sub-sectors, a broad national campaign on silica/silicosis

reinforcing key information annually for a period of 5 years would be extremely beneficial to ensuring greater and sustained awareness of silica risks.

ACCI does believe however that the greatest benefit would be through increasing knowledge on how and when to conduct risk assessments and awareness and compliance of other aspects of the model WHS laws such as when air monitoring and health monitoring is required.

ACCI survey data relating to risk assessments and air monitoring requirements

In response to the question: *If required, how do you assess the risk of silica exposure at your place of work/worksites?*

- **Sole-traders:** the majority did not respond to the question. One indicated they determine if they are cutting manufactured stone and then take appropriate action.
- **Micro and small:** the majority of respondents answered by describing what controls they use which was most commonly water suppression and RPE for example: “We don’t dry cut blocks. We use a wet saw”, “We always try to use water where possible to minimize dust along with P2 masks and dust extraction.” Only 4 out of 49 mentioned how they might conduct a risk assessment referring to visual inspections, exposure testing and generation of dust.
- **Medium:** medium sized business respondents in contrast by majority responded with references to risk assessments and use of SWMS.
- **Large:** the majority of large respondents referred to checking SDS, project-specific risk assessments, SWMS as relevant and engaging a hygienist to check exposure.

In the survey we also asked about any requirements to undertake air monitoring. Once again there was a clear difference in responses between sole-trader, micro and small business to that of medium and large. Significantly more sole-trader, micro and small business said no or were unsure about air monitoring requirements.

Some large businesses also made the comment that they encounter sub-contractors who do not seem to understand their legal duties in regard to air monitoring requirements.

This limited data seems to confirm qualitative feedback that sole and small businesses in particular have a lower awareness and understanding of good risk management practices and obligations around air and health monitoring.

2.4 Option 3: Clarifying the existing requirements of the model WHS laws for high-risk silica processes

Do not support Option 3 as proposed.

Option 3 will incur additional industry costs and these must be calculated in an updated cost benefit analysis.

We propose an alternative Option 3 that would meet the intent of only clarifying existing obligations and, in the event that a new definition for high risk silica work is supported by the majority of stakeholders we provide alternative drafting.

The CRIS articulates that Option 3 would “clarify the existing requirements of the model WHS laws into specific regulations covering defined high risk silica processes” and that “it would have no additional regulatory burden to industry beyond the current requirements of the model WHS laws”.

ACCI does not agree with this assessment and argues that Option 3 is in fact proposing new regulatory provisions that would be an additional cost to both industry and government. This is explained further in the table below.

Elements of option 3	In current model WHS laws	Current requirement	Additional regulation requirement proposed
New definition for <i>crystalline silica substance</i>	No	-	Inserting new definition in regulations
New definition for <i>crystalline silica process</i>	No	-	Inserting new definition in regulations
New definition for <i>high risk crystalline silica process-work</i> (Note the need to maintain phrasing consistency in proposals. To be consistent with other regulations it would be “ <i>high risk crystalline silica work</i> ”.)	No	-	Inserting new definition in regulations
Must undertake air monitoring when the work involves a <i>high risk crystalline silica process</i> .	No	PCBU must ensure that air monitoring is carried out to determine: – whether there is a risk to a worker’s health, or – if the PCBU is not certain whether or not silica dust levels exceed the workplace exposure standard.	Due to the definition of a <i>high risk crystalline silica process</i> including a third element: - it is reasonably likely that workplace exposure standards will be exceeded new requirements would be imposed with additional costs.
PCBUs undertaking a <i>high risk crystalline silica process</i> must provide and pay for health monitoring, provide information to the registered medical practitioner undertaking health monitoring, obtain health monitoring reports, provide health monitoring reports to workers, regulators and other relevant PCBUs and retain health monitoring records as per model WHS Regulations	No	A PCBU must organise and pay for health monitoring if there is a <u>significant</u> risk to the health of their workers	A new requirement is being proposed - that <i>high risk crystalline silica processes</i> trigger health monitoring requirements.

We would **oppose** Option 3 as is and the insertion of new definitions for a *crystalline silica substance*, *crystalline silica process* and *high risk crystalline silica processes* as this would go beyond clarifying existing requirements and create additional regulatory burdens.

Alternative Option 3

ACCI members could **support** defining *high risk crystalline silica processes* work in order to clarify compliance with Regulation 50 air monitoring requirements IF it was modified to only clarify existing requirements.

The proposed definition currently reads:

A *high risk crystalline silica processes* work would be defined as where:

- it is reasonably likely that workplace exposure standards will be exceeded, or
- the PCBU is not certain on reasonable grounds that workplace exposure standards will be exceeded, or
- there is a health risk from exposure to silica dust.

As worded, this would introduce a new requirement and would not be clarifying existing legislation. We would also argue that it should be defining "*Crystalline silica risk work*" not "*high risk work*".

The new definition, in order to clarify only should read:

Crystalline silica risk work ~~*High risk crystalline silica processes*~~ where:

Crystalline silica risk work means work carried out in a crystalline silica process where

- the PCBU is not certain on reasonable grounds whether or not the workplace exposure standard will be exceeded for respirable crystalline silica, ~~or~~
- ~~there is a risk to health from exposure to silica dust.~~

This would be consistent with how the lead risk regulations are drafted.

ACCI and our members believe that the current triggers for air and health monitoring are sufficient and should not be modified for silica dust if clarifying silica risk work.

Any specification that PCBUs must undertake air monitoring when the work involves a *high risk crystalline silica process* would be a new requirement and divergent to how all other workplace exposures are managed.

If current guidance material does not clarify air and health monitoring in relation to silica exposure (or if there is remaining confusion) for PCBUs, then the guidance materials should be revised, and clear messaging incorporated into the national awareness campaign as per option 2.

In the event that a new definition for high risk silica work is supported by the majority of stakeholders we provide alternative drafting

If the intent is to impose a 'high risk' differentiation then this could be done by additional reference to either significant health risk or uncontrolled processes.

High risk crystalline silica work means work carried out in a crystalline silica process where

- ~~the PCBU is not certain on reasonable grounds whether or not the workplace exposure standard is likely to be exceeded for respirable crystalline silica, or and~~
- there is a significant risk to health from exposure to silica dust.

SWMS

ACCI would also note that option 3 proposes to clarify that where work involving silica-containing materials meets the definition of construction work, crystalline silica processes would be considered high risk construction work and therefore Safe Work Method Statement regulations would apply.

At present this is not necessarily clear to industry nor communicated and enforced by regulators. We would recommend that the exclusion for construction work of a minor nature also be clarified and emphasised so that any changes should ensure that minor or infrequent tasks or processes that would not pose a high risk of exposure are not captured.

We would recommend that any guidance materials around use of SWMS refers to the SWA SWMS template.

Elements of option 3	In current model WHS laws	Current requirement	Clarification
Where work involving silica-containing materials meets the definition of construction work, crystalline silica processes would be considered high risk construction work	Not clear	In this Chapter, high risk construction work means construction work that: (l) is carried out in an area that may have a contaminated or flammable atmosphere .	The clarification would be through defining silica dust as a contaminant (as with asbestos and lead dust) and therefore triggering 291 I and a SWMS.
SWMS obligation	Not clear	Once defined as high risk construction work the requirement for a SWMS is triggered.	

2.5 Option 5a and 5b

Do not support Option 5a or 5b.

The focus should be on the adoption of known controls by the industry, rather than documentation of control statements. The development of targeted guidance material that outlines the known risk controls for specific types of work involving crystalline silica is recommended.

The CRIS notes that Option 5a would include additional regulation of processes involving all materials meeting the definition of a crystalline silica substance, including engineered stone (crystalline silica containing materials, CSC materials). It is consistent with the regulatory amendments proposed in Option 3; however, it includes additional duties that would require PCBUs to identify and assess the risks of all processes involving CSC materials and develop a silica risk control plan.

The proposed benefits of this option are: improved compliance with WHS requirements including air and health monitoring, improving PCBU and workers' understanding of the risks and controls by requiring a risk assessment and risk control plan, and collating air and health monitoring reports to provide a source of data for regulators to determine whether control measures are adequate to reduce the risk of exposure to RCS.

The CRIS states that: additional regulation of defined high risk crystalline silica processes would lead to increased compliance, a reduction in workplace exposure to RCS and reduced instances of silicosis and other silica related diseases over and above the base case

ACCI and our members do not agree that Option 5a and 5b would achieve these outcomes.

The requirement to do a risk assessment and develop a control plan mirrors a SWMS process as indicated by the note that preparation of a SWMS would be sufficient to meet the requirement for a silica risk control plan.

Much of the work likely to be captured by the definition of high risk silica work relates to construction.

As noted above, Option 3 seeks to clarify that where work involving silica-containing materials meets the definition of construction work, crystalline silica processes would be considered high risk construction work and therefore Safe Work Method Statement regulations would apply.

Issue 1: At present this is not necessarily clear to industry nor communicated and enforced by regulators therefore just reiterating this requirement in regulations would not result in increased compliance and a reduction of workplace exposure.

Issue 2: The issues with SWMS, in particular SMEs use of SWMS are well documented.

The recent ACCI survey reiterated the further work that needs to be done on ensuring SWMS are fit for purpose and that small business in particular use them as intended and receive the benefits as intended. This is particularly relevant as most businesses in the construction industry are either sole traders or very small, employing less than 20 people.

ACCI survey question on SWMS: *Do you think a SWMS assists in identifying and managing the risks of silica exposure? I.e, does it improve safety outcomes?*

Once again there was a significant contrast in the responses from sole, micro and small businesses to that of larger businesses.

Larger businesses thought SWMS were useful tools for identifying and managing risks with most providing commentary along the lines of :

- Yes as the responsible persons have to think about the risk and plan their control measures
- Yes, allows training to workers.
- Yes - it sets out the controls to be used. This is still an educational piece with a lot of contractors.

Sole, micro and small businesses in comparison said:

- not really, like most mandatory compliances, people are quick to 'tick a box' rather than read / understand the material
- No one takes notice of Swms
- no, it does not improve safety outcomes for our business, we do what we can with protective equipment which does not and would not change with or without the SWMS

Issue 3: If Option 3 seeks to only clarify existing requirements, then we reiterate that air and health monitoring are not always required for silica work or work that requires a SWMS. Therefore, the addition of a requirement to provide report results would be irrelevant.

It is also unclear in the CRIS as to what the frequency of air monitoring would be and therefore the provision of reports to whom this obligation would apply. This would need to be factored into any cost calculations.

In the case that air monitoring and/or health monitoring requirements are triggered, we do not believe the proposed reporting requirement would achieve additional benefits that offset the regulatory burden. It is unclear how useful the reporting requirements for lead and asbestos are and no evidence has been provided that reporting of this data leads to reduced exposure and active determination by regulators as to whether control measures in workplaces are adequate to reduce the risk of exposure. In the event that a regulator would want this information to ensure compliance or adequate controls are in place then they already have sufficient powers to request this under s171 of the model WHS Act - power to require production of documents and answers to questions.

Furthermore, the National Occupational Respiratory Disease Registry (the Registry) being progressed by the Federal Government will capture disease notifications and provide these in near real time to relevant jurisdictions to assist in understanding prevalence and reducing further harmful worker exposure.

Targeted Guidance

The focus should be on the adoption of known controls by the industry, rather than documentation of control statements, as this would result in a more consistent approach to risk controls. This would lead to a greater understanding and acceptance of the control measures and how they are implemented and would be more likely to achieve the goals of increased compliance, a reduction in workplace exposure to RCS and reduced instances of silicosis and other silica related diseases over and above the base case.

The development of targeted guidance material that outlines the known risk controls for specific types of work involving crystalline silica is recommended. Guidance would allow for detailed and practical 'how to' information on a broad range of tasks involving silica, with the ability to easily update information on risk controls as new technology or better solutions are identified.

We understand that the approach taken to the new Queensland Code of Practice on silica containing materials is very much focused on providing information on recognised controls for specific tasks. We would welcome discussing this further as part of the SWA guidance work plan for occupational diseases.

2.6 Option 4: Implementation of a national licensing framework for PCBU's working with engineered stone

Do not support Option 4.

This option seeks to implement a national licensing framework for PCBU's working with engineered stone, under the model WHS laws.

ACCI and our members are concerned that the way this option is phrased in the CRIS would result in unintentionally capturing a range of businesses that undertake minor and infrequent work with engineered stone such as cutting excess stone to fit to cabinetry, drilling a hole for electrical cable connections etc. The risks of this work are already sufficiently addressed in current legislation (including the need for a SWMS as applicable and when used as intended).

We do not believe that the benefits would be achieved as described nor that they would outweigh the significant costs, practical barriers and regulatory burden this option as drafted would have on industry.

Any further consideration of a licensing scheme should be restricted to the area of highest risk which is stone fabricators and stonemasons.

3 Other Opportunities for improvement across the system

3.1 Service demands and small business

Recommendation: review accessibility, pricing and awareness of support services such as air and health monitoring for small businesses, particularly in rural and regional areas.

Sampling, evaluating and reporting on exposure is done by professionals (i.e. an occupational hygienist) and is not a task a small business can perform themselves.

Industry has already reported significant concern from small businesses engaging professionals for air monitoring and health monitoring services due to cost considerations and accessibility for those in remote and rural areas.

Examples of cost as an inhibitor

Large concreter: \$6000 for two days of static and personal monitoring with reports by NATA accredited companies.

Large concreter: Lots of variables to consider, number of days to complete, number of samples etc. approx. 1 hygienist day rate \$1400 – 2000. Number of samples @ 60-80 / sample Lab fee / batch \$100 – 200. Cost between 4,000 - 15,000 per site.

3.2 Training

Recommendation: Skills and Training Ministers should approve all four relevant units of competency developed through the Silica Safety Project. As a matter of urgency the silica awareness national unit of competency that has been developed by Artibus in consultation with industry, union and other relevant stakeholders should be approved and rolled out to industry.

This silica training should be widely promoted to industries where workers work with silica containing materials.

3.3 WHS Regulator action.

Recommendation: increase transparency and certainty as to 'how' regulators will inspect, enforce and monitor compliance ensuring consistent approaches across states and territories and alignment with Occupational Hygienist practices.

Our members are advising that responses to silica and dust diseases by WHS Regulators are varied which is contributing to confusion for industry. Most jurisdictions have responded with proactive compliance campaigns and additional guidance, however the details vary.

During compliance activities, jurisdictions are using differing sampling techniques, analysis and definitions such as with 'similar exposure groups' (SEGs). Anecdotally they also appear to be enforcing different health monitoring requirements due to different interpretations of the relevant regulation.

4 Cost modelling key assumptions and methodology

4.1 Key Assumptions - Defining the additional costs to industry

ACCI does not agree with the majority of identified costs and key assumptions underpinning the estimated cost to industry for each option.

The CRIS notes that costs have been estimated for Options 2 – 5.

Below we present our arguments that Option 1 – the base case and Option 3 do incur additional costs to industry. We then also provide information on why we do not believe the costings for Option 4, 5a and 5b are accurate and how they should be re-costed.

4.1.1 Appendix D: Cost modelling key assumptions and methodology

Tables 24, 25, 26, 27, and 28 present the key assumptions and methodology used to estimate the total cost to industry and government for each option.

Concerns with Table 24, 25 assumptions

ANZIC classifications

ACCI members reviewed the ANZIC 4-digit classifications presented in Table 24.

Construction industry representatives noted that some construction ANZIC 4-digit classifications are not captured in table 24 and 25 and there is no explanation for why some have been excluded.

We have identified 14 additional sub-sector classifications that should be included in Table 25 such as: 3232 Electrical Services, 3242 Carpentry Services and 3233 Air Conditioning and Heating Services.

In order to respond to this CRIS, ACCI and our members circulated a Silica Survey amongst our network. The survey was open from 29th July to the 12th August and had a total of 86 respondents. One question in our survey tested which occupation classifications self-identify as being exposed to silica in their everyday work.

We combined the results of this with industry association feedback and OSHA's list of "at-risk industry" and then took that list of occupations and cross checked the occupations against the industry classifications (Census data 2016), which resulted in more industry classifications having individuals that would be exposed to silica.

We identify several sub-sectors with large numbers of occupations that may be exposed to silica and for which the proposed options would apply which were not included in SWA's table 25. These include (by 4-digit ANZIC code): 3011, 3019, 3211, 3212, 3224, 3232, 3233, 3234, 3239, 3242, 3244, 3245, 3291, 3292.

Table 2: Total employment by sub-sector and selected occupations of interest

Number of selected occupations employed in construction industry by subsector, Census 2016													
	Total - selected occupations	Other occupations	Total employment	Selected occupations share of total (%)	Selected occupations of interest								
					Bricklayers and Stonemasons	Carpenters and Joiners	Floor Finishers	Painting Trades Workers	Glaziers	Plasterers	Roof Tilers	Wall and Floor Tilers	Plumbers
Carpentry Services	40,044	15,845	55,889	71.6%	100	39,007	710	43	34	81	17	26	26
Painting and Decorating Services	33,395	6,865	40,260	82.9%	3	55	22	33,173	0	99	5	22	16
House Construction	23,551	62,482	86,033	27.4%	2,852	15,333	117	1,267	160	1,682	199	1,116	825
Other Residential Building Construction	17,647	33,398	51,045	34.6%	2,093	9,614	91	867	148	2,269	186	1,067	1,312
Other building construction	15,421	38,915	54,336	28.4%	1,278	9,472	68	691	122	1,623	109	841	1,217
Glazing services	5,039	5,888	10,927	46.1%	0	402	0	4	4,633	0	0	0	0
Other Heavy and Civil Engineering Construction	2,309	46,177	48,486	4.8%	62	693	0	124	6	19	12	41	1,352
Fire and Security Alarm Installation Services	1,135	7,080	8,215	13.8%	0	33	86	11	5	0	7	3	990
Landscape Construction Services	1,127	38,469	39,596	2.8%	766	198	4	22	22	9	0	30	76
Air Conditioning and Heating Services	1,006	14,835	15,841	6.4%	5	35	0	11	0	0	3	0	952
Road and Bridge Construction	592	30,458	31,050	1.9%	19	436	0	22	0	8	10	4	93
Other Building Installation Services	565	8,498	9,063	6.2%	10	354	7	9	83	68	7	0	27
Site Preparation Services	420	36,672	37,092	1.1%	16	147	7	10	3	17	0	10	210
Electrical Services	180	89,775	89,955	0.2%	0	101	0	5	0	3	0	0	71
Structural Steel Erection Services	57	5,023	5,080	1.1%	0	33	0	8	0	4	0	0	12
Land Development and Subdivision	42	3,994	4,036	1.0%	6	11	0	0	0	0	0	0	25
Hire of Construction Machinery with Operator	12	3,838	3,850	0.3%	0	12	0	0	0	0	0	0	0
Other subsectors of construction	6,668	313,632	320,300	2.1%	453	3,019	584	319	187	919	75	268	844
Total	149,210	761,844	911,054	16.4%	7,663	78,955	1,696	36,586	5,403	6,801	630	3,428	8,048

Source: Minter Business Analytics analysis of Census 2016 TradeBuilder

Table 25 groups multiple industry categories together

We do not believe Quarrying, Mining, Tunnelling and Demolition should be grouped into one category.

Other Heavy and Civil Engineering Construction, Road and Bridge Construction and Site Preparation Services all fall under the Construction Industry in ANZSCO coding and so should be appropriately grouped.

We have reconfigured the industry categories and estimated proportion of businesses covered in our revised table 3 below.

Proportion of businesses covered by options

There is no explanation provided for the proportion column in Table 25 beyond “a proportion of businesses within each industry category will be required to meet the additional duties beyond the existing model WHS laws as presented in Table 25.”

The percentages provided range from 10% to 100% for “the options”. It is unclear if by options, the percentage estimates estimate the number of businesses in each category impacted by all options 2, 3, 4, 5a, 5b or just some of them such as option 3, 5a, 5b.

Industry Association members asked for feedback from their members in the listed industries as to what percentage of businesses they believe would be covered by the proposed options. These estimates are provided in table 3 below and **demonstrate a significant under-estimate of businesses potentially impacted by the options in the CRIS.**

Assumptions around the number of businesses in Australia not subject to the model WHS laws

The CRIS mentions that the scope of this CRIS covers industries that are subject to the model WHS laws. Therefore, Victorian businesses have been excluded from the total business count estimates, as are mining and quarrying businesses in Tasmania, Western Australia, Queensland and New South Wales.

ACCI argues that there would be a large percentage of Victorian businesses that operate cross-border and would therefore be impacted by the options and should be costed.

Note that ACCI has not included these figures in our revised tables due to time constraints. Further work should be undertaken to estimate what proportion of businesses would operate cross-border to then add this proportion of businesses into the calculations.

Please see Table 6 in Appendix A for count of building and construction businesses according to jurisdiction.

The costs should also attempt to factor in industry supply chain influences and the indirect effects of regulatory changes given the cross-border movement of goods and services in Australia.

In Western Australia, the mining regulations are based on the Model Work Health and Safety Regulations and the draft Model Work Health and Safety (Mines) Regulations. These regulations contain modifications of those model regulations for this State and for the mining industry. **It is certainly within the realm of possibility for proposed changes to legislation to be adopted in the WA mines legislation and this should be in scope of the review and costed.**

In New South Wales, the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 and subsequent legislation also has a clear relationship to the model WHS laws. The explanatory notes state that “The WHS (Mines) Act currently provides that it is to be read as if it formed part of the WHS Act The amendment makes it clear that regulations under the WHS Act are included, so that references in both Acts include references to the other, and include references to both sets of Regulations.” We would again argue that **it is possible that the proposed regulatory change options in the CRIS may also be adopted for the New South Wales mining and quarrying legislation and therefore should be in scope. Similar wording is used in the Tasmanian legislation.**

In Queensland, the Mining legislation was recently amended following a recommendation from Safe Work Australia informed by a review process similar to this CRIS. Therefore, again we’d argue that **it is possible that Queensland would adopt proposed options and should be in scope.**

Note that ACCI has not included these figures in our revised tables due to time constraints. Further work should be undertaken to estimate what proportion of businesses would be captured under WA, NSW, TAS and QLD mines and quarrying legislation if they were to mirror any proposed regulatory changes and show this proportion of businesses in the calculations.

In the table below, ACCI has consulted with members to identify the appropriate breakdown of industry categories and the percentage of businesses impacted by each of the options 3, 4, 5a and 5b.

Table 3: Proportion of businesses covered by the CRIS options by industry classification

Industry	ANZIC industry classification – 4 digit level	CRIS %	Proportion of businesses covered by option 3 (as in RIS)	Option 4 - National licensing framework for PCBU's working with engineered stone	Option 5a Additional regulation of defined high risk crystalline silica processes, including engineered stone (all)	Option 5b Additional regulation of defined high risk crystalline silica processes, excluding engineered stone
Construction	House Construction, Other Residential Building, Construction, Non-Residential Building Construction, Land Development and Subdivision, Concreting Services, Bricklaying Services, Roofing Services, Structural Steel Erection Services, Plumbing Services, Electrical Services, Air Conditioning and Heating Services, Fire and Security Alarm Installation Services, Other Building Installation Services, Plastering and Ceiling Services, Carpentry Services, Tiling and Carpeting Services, Painting and Decorating Services, Glazing Services, Landscape Construction Services, Hire of Construction Machinery with Operator Other Construction Services	10 and 100%	100%	25 (Includes: Plumbing Services, Electrical Services, Carpentry Services, Tiling and Carpeting Services, Glazing Services)	90	90
(Construction) Tunnelling Demolition	Other Heavy and Civil Engineering Construction, Road and Bridge Construction, Site Preparation Services	Part of 37%	100	Nil	95	95
Manufacturing	Cement and Lime Manufacturing, Clay Brick Manufacturing, Other Ceramic Product Manufacturing, Other Non-Metallic Mineral Product Manufacturing, Plaster Product Manufacturing, Ready-Mixed Concrete Manufacturing	10%	85%	5%	90%	90%
	Concrete Product Manufacturing	100%	100	Nil	100	100
Quarrying	Gravel and Sand Quarrying, Other Non-Metallic Mineral Mining and Quarrying		100	Nil	100	100

Mining	Bauxite Mining, Coal Mining, Copper Ore Mining, Gold Ore Mining, Iron Ore Mining, Mineral Sand Mining, Nickel Ore Mining, Other Construction Material Mining, Other Metal Ore Mining, Silver-Lead-Zinc Ore Mining, Other Mining Support Services, Site Preparation Services	37%	50-65%	Nil	50-65%	50-65%

Note that businesses in the Oil and Gas industry also indicated that they would be captured which isn't scoped in the CRIS.

"Yeah, Oil and Gas would be affected. As a minimum, we would have to develop a SWMS under Option 3 (i.e. various maintenance activities [particularly refurbishment, demolition work] would occasionally use power tools on materials with >1% of silica). I'm fairly comfortable that the activity would be low risk and wouldn't be classified as a "high risk crystalline silica process" but we would have to complete a targeted baseline assessment just to confirm that assumption."

Table 26 in the CRIS is replicated below. The red shaded rows are the CRIS figures and the blue rows underneath these are ACCI's industry figures. Given members belief that different options presented in the CRIS will impact different proportions of businesses, we have separated out the final column to calculate the proportion of businesses we believe will be impacted by Option 3, 4, 5a and 5b respectively.

All businesses would benefit from Option 2 however there are no industry additional costs associated with this and so it is not presented in the options.

In calculating the construction totals we have excluded the Victorian count of businesses but note our comment above that we believe additional Victorian businesses that operate cross border should be counted and that preparation for the DRIS should include these reworked figures.

Similarly, we have excluded the mining and quarrying businesses in Tasmania, Western Australia, Queensland and New South Wales but note that these should be counted in preparation of the final DRIS figures given the possibility of adopting options in this legislation to mirror the WHS legislation (as demonstrated previously).

Table 4: Comparison of CRIS and ACCI estimated number of businesses per industry category covered by Options 3, 4 and 5 (Australian Bureau of Statistics 2021b)

	Small		Medium		Large		Total				
Industry category	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations (Option 3, 4, 5a, 5b)			
Construction	92,745	16,979	1,293	129	34	3	94,072	17,111			
Construction							274,278	274,278	68,569	246,850	246,850

	Small		Medium		Large		Total				
Industry category	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations (Option 3, 4, 5a, 5b)			
<i>Tunnelling</i>	7,150	2,646	417	154	48	18	7,615	2,818			
<i>Demolition</i>	14,578	1,458	426	43	12	1	15,016	1,502			
<i>Tunnelling Demolition</i>							7610 + 15018 = 22,628	22,628	Nil	21,497	21,497
<i>Manufacturing</i>	2,075	415	114	11	27	3	2,216	429			
<i>Manufacturing</i>							2,216	1884	111	1994	1994

	Small		Medium		Large		Total				
Industry category	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations	Total number of businesses	Businesses covered by regulations (Option 3, 4, 5a, 5b)			
Quarrying	109	40	3	1	-	-	112	41			
Quarrying							112	112	Nil	112	112
Mining	841	311	55	20	17	6	913	338			
Mining							913	X50% - 65% 456 - 593	Nil	456 - 593	456 - 593
Total	117,498	21,848	2,308	359	138	31	119,944	22,239			
Total							300,147	299,358 – 299,495	68,680	270,909 – 270,946	270,909 – 270,946

ACCI agrees with the worker wage assumptions in Table 27.

Note we are not commenting on Government-related figures, just industry.

4.1.2 Methodology

The methodology and underlying assumptions used to estimate the total costs to industry and government for each option are presented in CRIS Tables 29 and 30.

We disagree with elements of the methodology for Option 4 and believe cost elements are missing for Option 3, 4, 5a and 5b.

Input/Assumptions

The input associated with “number of hours to prepare x” references “Deloitte 2021, ‘Occupational Health and Safety Amendment (Crystalline Silica) Regulations 2021’.”

This submission is not available on the Victorian Engage platform and therefore we are unable to verify how Deloitte has calculated the inputs for a number of rows.

In regard to the number of PCBU's working with engineered stone in Australia (#) the figure used is 1000 which is taken from the Australian Engineered Stone Advisory Group 2019 submission to the ACCC. This figure only captures ‘fabrication businesses’ or those who employ stonemasons.

Given the phrasing of Option 4 that it would cover “all PCBU's working with engineered stone” and “engineered stone processes including cutting, grinding or abrasive polishing of engineered stone” **construction members have indicated that a percentage of construction businesses may be captured in this definition. Particularly so for plumbing services, electrical services, tiling and carpeting services and carpentry services. At a minimum, the count of businesses in these sub-sectors should be used as the relevant input.** If so, it would be significantly more businesses impacted by Option 4.

4.2 Option 1 Costing

The CRIS notes that “the base case has been included as a baseline option to demonstrate the incremental impact of regulatory/non-regulatory changes over and above the baseline costs. There would be no additional costs to industry or government under the base case.”

As previously noted, we do not believe the base case is an accurate base case as it includes actions/initiatives that have been agreed by jurisdictions, but which have not yet been implemented such as the dry cutting prohibition.

There will be both industry and government costs associated with the implementation of the new initiatives and regulations.

4.3 Option 3 Costing

The CRIS notes that no additional costs to industry would be incurred for Option 3.

ACCI does not agree that no costs will be incurred for Option 3.

Proposed CRIS Option 3 definitions:

Definitions of crystalline silica substance, crystalline silica process and high risk crystalline silica process.

- A **crystalline silica substance** would be defined as *materials containing over 1 per cent crystalline silica and would include engineered stone.*
- A **crystalline silica process** would be defined as:
 - use of power tools and machinery that generates crystalline silica dust
 - use of roadheaders⁷ involving material that is a crystalline silica substance
 - quarrying involving material that is a crystalline silica substance
 - mechanical screening involving material that is a crystalline silica substance
 - tunnelling involving material that is a crystalline silica substance, or
 - a process that exposes or is reasonably likely to expose a person to crystalline silica dust during manufacture or handling of a crystalline silica substance.
- A **high risk crystalline silica processes** would be defined as crystalline silica processes where:
 - it is reasonably likely that workplace exposure standards will be exceeded, or
 - the PCBU is not certain on reasonable grounds that workplace exposure standards will be exceeded, or
 - there is a health risk from exposure to silica dust.

This would specify that:

- Where work involving silica-containing materials meets the definition of **construction work, crystalline silica processes** would be considered high risk construction work. Therefore, a **Safe Work Method Statement** must be produced, complied with, provided to the principal contractor (if any), reviewed and retained as per model WHS Regulations regs 299-303.
- As per model WHS Regulations reg 50, PCBUs must undertake **air monitoring** in the breathing zone of workers when the work involves a high risk crystalline silica process.
- PCBUs undertaking a high risk crystalline silica process must provide and pay for **health monitoring** for workers, **provide information to the registered medical practitioner** undertaking health monitoring, **obtain health monitoring reports, provide health monitoring reports to workers, regulators and other** relevant PCBUs and **retain health monitoring records** as per model WHS Regulations regs 368-378.

Specific regulations would assist in improving understanding of the requirements of the model WHS laws for defined high risk silica processes and may improve compliance in sectors where the understanding of the requirements of the model WHS laws is limited. Clarification that air monitoring and health monitoring are required is expected to reduce the risk to workers from exposure to RCS.

As noted above, we have identified the following elements that are new regulation requirements and would therefore incur a cost due to the corresponding behavioural changes.

Elements of option 3	Additional regulation requirement proposed
New definition for <i>crystalline silica substance</i>	Inserting new definition in regulations
New definition for <i>crystalline silica process</i>	Inserting new definition in regulations

New definition for <i>high risk crystalline silica process-work</i>	Inserting new definition in regulations
Must undertake air monitoring when the work involves a <i>high risk crystalline silica process</i> .	Due to the definition of a <i>high risk crystalline silica process</i> including a third element: it is reasonably likely that workplace exposure standards will be exceeded.
PCBUs undertaking a <i>high risk crystalline silica process</i> must provide and pay for health monitoring, provide information to the registered medical practitioner undertaking health monitoring, obtain health monitoring reports, provide health monitoring reports to workers, regulators and other relevant PCBUs and retain health monitoring records as per model WHS Regulations	A new requirement is being proposed - that <i>high risk crystalline silica processes</i> trigger health monitoring requirements (in all cases).

The Agency should prepare a costs table for Option 3 prior to the Decision RIS, taking account of the following activities, variables and input assumptions provided in the table below and using the formula's established for the analysis of the other options in the CRIS.

Description of additional costs to industry of Options 3			
Cost assumption	Description	Variable	Input/assumption
Behavioural change			
• Review of risk assessment and risk management processes	Additional labour costs for the review of risks and risk management processes against the new definitions and requirements	Number of hours Number of PCBUs impacted	4 See revised ACCI Table 4
• Information, training, etc on changes	Additional labour costs for the provision of new information, training etc on the changes to the definition and any consequential changes to risk assessment and risk management processes.	Number of hours Number of PCBUs impacted	7 (development of training and revised materials). 1-2 hours of training to workers See revised ACCI Table 4
Air monitoring	Labour of checking against new "reasonably likely" dot point whether air monitoring is required.	Number of hours – compliance check	2
	Cost of any additional air monitoring	Cost of hygienist, samples and testing	\$6000 for two days of static and personal monitoring with reports by NATA accredited companies. Lots of variables to consider, number of days to complete, number of samples etc. approx. 1 hygienist day rate \$1400 - 2000

			Number of samples @ 60-80 / sample Lab fee / batch \$100 - 200 Cost between 4,000 - 15,000 per site .
Health monitoring	Labour of checking whether you need to conduct health monitoring given changes to definitions	Number of hours – compliance check	2
	Cost of additional health monitoring	Cost of medical appointment, possible travel costs.	Suggest seeking average cost from a provider. Average travel costs for regional/rural staff who need to travel to a city ~ \$1500-2000.

4.4 Option 4

Table 29 in the CRIS provides the methodology and underlying assumptions used to estimate the total costs to industry for Option 4, 5a and 5b.

Below we indicate in red additional or alternative cost assumptions, variables and input/assumptions identified through industry consultation that should be factored into revised costings prior to DRIS preparation.

Description of additional costs to industry of Options 4			
Cost assumption	Description	Variable	Input/ assumption
Licence application	Labour to prepare a licence application for PCBU's working with engineered stone	Number of PCBU's working with engineered stone in Australia (#)	1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
Licence fee	Licence fee paid by PCBU's to work with engineered stone for a period of 5 years.	Number of PCBU's working with engineered stone in Australia (#)	1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
Engineered stone suppliers – retention of records	Labour for suppliers of engineered stone to retain records of PCBU's who have been supplied engineered stone.		
Engineered stone control plan	Labour costs to prepare an engineered stone control and implementation plan	Number of hours per year to prepare engineered stone control plan (hours/year)	2 hours is perhaps accurate for a large business but a small business is likely to take 4 hours.

		Number of PCBUs working with engineered stone in Australia (#)	1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
Compliance and monitoring enforcement	Labour to participate in scheduled and unscheduled audits	Time to participate in scheduled and unscheduled audits (hours) Number of PCBUs working with engineered stone in Australia (#)	1-2 hours to prepare for scheduled audit An actual audit may take 1 day, half a day at minimum (ISO audits for 45001 for example take on average 2 days). 4 hours 1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
Health monitoring – provision of report to regulators	Additional labour costs for the preparation of health monitoring reports for submission to WHS regulators in each jurisdiction. Assumption is health monitoring is annual with annual reporting?.	Number of PCBUs working with engineered stone in Australia (#)	1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
Air monitoring – provision of report to regulators	Labour to submit air monitoring report to regulators Unclear as to frequency requirements. If more than annual this would increase costs and should be averaged and included. (QLD Code of Practice as an example stipulates - within 6 months of Code commencing or new business, 6 month intervals for first two years, then in response to triggers outlined. Then every 12 months).	Number of PCBUs working with engineered stone in Australia (#)	1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
Additional Requirements			
Health monitoring	At present not all construction businesses may be required to undertake health monitoring. A percentage who currently aren't may meet the requirements for Option 4 and would therefore have to introduce health monitoring.	Cost of medical appointment, possible travel costs.	Suggest seeking average cost from a provider. Average travel costs for regional/rural staff who need to travel to a city ~ \$1500-2000.

Air monitoring	At present not all construction businesses may be required to undertake air monitoring. A percentage who are not may meet the requirements for Option 4 and would therefore have to introduce air monitoring.	Cost of hygienist, samples and testing	\$6000 for two days of static and personal monitoring with reports by NATA accredited companies. Lots of variables to consider, number of days to complete, number of samples etc. approx. 1 hygienist day rate \$1400 - 2000 Number of samples @ 60-80 / sample Lab fee / batch \$100 - 200 Cost between 4,000 - 15,000 per site.
Gap analysis of current control measures against the prescribed control measures	Labour of gap analysis	Number of hours Number of PCBUs working with engineered stone in Australia (#)	2 1000 (identified in CRIS) plus the construction sub-sectors identified in Table 4.
	Cost of implementing controls prescribed that are not already in place.	Depends on gap analysis and requirements drafted	
	Provide instruction, information, and training to workers on any new controls		

4.5 Option 5a and 5b

Table 29 in the CRIS provides the methodology and underlying assumptions used to estimate the total costs to industry for Option 5a and 5b.

The first cost assumption is for a risk assessment in the quarrying, mining, tunnelling and demolition industries (Year 1 only). All industries should be captured in a separate year 1 calculation that factors in the cost of x-ray diffraction analysis as not all construction and manufacturing businesses currently meet the requirement for health monitoring. Refer to ACCI Table 4 for business counts.

Any reference in the CRIS to Table 26 should be updated using the alternative ACCI Table 4 data.

Additional labour costs for the preparation of a silica risk control plan needs to factor in the additional businesses in quarrying, mining and manufacturing that would be impacted as per ACCI Table 4.

For health and air monitoring calculations, the number of businesses undertaking high risk silica work in Australia (#) should be updated using ACCI Table 4.

Air monitoring requirements and frequency is determined by the PCBUs understanding of whether they believe they are exceeding the WES or there is a health risk and some PCBUs don't believe air monitoring is necessary due to the layers of controls in place already. If this changes or the regulators change their

compliance behaviours to indicate to PCBUs that baseline air monitoring is needed to prove that you've met the requirements, then there would be significant additional costs for all of the businesses in all categories multiplied by the frequency of air monitoring.

Some survey respondents indicated use of several controls such as wet suppression or on tool dust extraction, exclusion zones, RPE and training, and no air monitoring assessments and this has been accepted practice by the regulators.

5 Appendix A

Table 6: Count of building and construction businesses according to jurisdiction.

Classification of building and construction businesses according to specific activity as at 30 June 2021										
	Australia	Australia (ex. VIC)	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory
Total number of building and construction businesses	410,781	<u>296,906</u>	137,947	113,875	79,234	24,209	39,619	6,882	2,865	6,150
3011 - House Construction	53,661	<u>37,309</u>	17,661	16,352	10,016	2,997	3,990	1,251	335	1,059
3019 - Other Residential Building Construction	26,218	<u>17,594</u>	9,033	8,624	4,206	1,158	2,079	352	113	653
3020 - Non-Residential Building Construction	16,181	<u>11,555</u>	5,298	4,626	3,013	904	1,705	234	144	257
3101 - Road and Bridge Construction	2,343	<u>1,722</u>	695	621	538	99	260	64	48	18
3109 - Other Heavy and Civil Engineering Construction	7,621	<u>5,888</u>	2,475	1,733	1,775	415	946	110	86	81
3211 - Land Development and Subdivision	12,478	<u>8,907</u>	3,352	3,571	2,595	849	1,673	259	53	126
3212 - Site Preparation Services	19,830	<u>15,018</u>	6,680	4,812	4,719	1,028	1,885	420	153	133
3221 - Concreting Services	13,988	<u>9,896</u>	4,421	4,092	3,058	796	1,179	159	125	158
3222 - Bricklaying Services	9,114	<u>6,180</u>	2,789	2,934	1,044	566	1,472	148	40	121
3223 - Roofing Services	5,487	<u>4,316</u>	1,951	1,171	1,284	361	509	95	40	76
3224 - Structural Steel Erection Services	4,402	<u>3,389</u>	1,626	1,013	806	255	512	94	65	31
3231 - Plumbing Services	28,484	<u>20,008</u>	9,349	8,476	5,268	1,633	2,724	452	212	370
3232 - Electrical Services	44,811	<u>33,494</u>	15,102	11,317	9,237	3,011	4,453	776	382	533
3233 - Air Conditioning and Heating Services	7,026	<u>5,552</u>	2,579	1,474	1,473	469	754	67	89	121
3234 - Fire and Security Alarm Installation Services	3,827	<u>2,885</u>	1,417	942	753	216	372	45	32	50
3239 - Other Building Installation Services	5,826	<u>4,250</u>	2,249	1,576	942	320	567	45	30	97
3241 - Plastering and Ceiling Services	16,382	<u>11,518</u>	5,317	4,864	2,819	1,087	1,733	247	82	233
3242 - Carpentry Services	48,577	<u>35,366</u>	17,689	13,211	9,294	2,618	4,060	742	282	681
3243 - Tiling and Carpeting Services	18,125	<u>13,482</u>	5,870	4,643	3,652	1,329	1,913	240	123	355
3244 - Painting and Decorating Services	21,068	<u>15,299</u>	7,394	5,769	3,978	1,216	1,840	355	133	383
3245 - Glazing Services	3,595	<u>2,679</u>	1,227	916	652	196	461	76	21	46
3291 - Landscape Construction Services	16,612	<u>11,934</u>	5,105	4,678	3,087	1,222	1,850	270	118	282
3292 - Hire of Construction Machinery with Operator	2,024	<u>1,594</u>	619	430	573	100	233	42	15	12
3299 - Other Construction Service businesses	23,101	<u>17,071</u>	8,049	6,030	4,452	1,364	2,449	339	144	274

Source: Master Builders Australia analysis of ABS Counts of Australian Businesses, including Entries and Exits (8165.0)

6 About the Australian Chamber

The Australian Chamber represents hundreds of thousands of businesses in every state and territory and across all industries. Ranging from small and medium enterprises to the largest companies, our network employs millions of people.

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We seek to create an environment in which businesspeople, employees and independent contractors can achieve their potential as part of a dynamic private sector. We encourage entrepreneurship and innovation to achieve prosperity, economic growth and jobs.

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