

# Impact Analysis Statement (IAS)

## Summary IAS

### Details

<b>Lead department</b>	Office of Industrial Relations, Department of State Development and Infrastructure
<b>Name of the proposal</b>	Introduction of a stronger regulatory framework for crystalline silica substances
<b>Submission type</b> (Summary IAS)	Summary Impact Analysis Statement
<b>Title of related legislative or regulatory instrument</b>	Work Health and Safety Amendment Regulation 2024
<b>Date of issue</b>	13 August 2024

This Summary IAS addresses the nationally agreed introduction of stronger regulations for working with crystalline silica substances. The Summary IAS is aligned with the findings of Safe Work Australia's *Decision Regulation Impact Statement: Managing the risks of respirable crystalline silica at work (DRIS)*.

#### What is the nature, size and scope of the problem? What are the objectives of government action?

##### The nature of the policy problem

Respirable Crystalline Silica (RCS) is a significant human health hazard. RCS is released when materials containing silica are cut, polished, grinded, sanded and trimmed (processed), particularly with power tools. Occupational exposure across a variety of industrial operations, including mining, quarrying, sandblasting, rock drilling, road construction, stone masonry and tunnelling is the main source of RCS exposure. When airborne, workers can easily inhale RCS deep into their lungs where it can lead to a range of respiratory diseases.

When RCS is inhaled, it causes inflammation and scarring in lungs and can lead to respiratory failure, disability or death. Exposure to RCS is linked to an increased risk of several other diseases, such as lung cancer, chronic renal disease, autoimmune disorders (as well as an increased risk of activating latent tuberculosis). Of primary concern is silicosis – a serious, irreversible occupational lung disease caused by inhalation of RCS from the uncontrolled processing of material with crystalline silica content. Crystalline silica-containing products containing at least 1 per cent crystalline silica (by weight) are collectively referred to as Crystalline Silica Substances (CSS).

Silicosis affects the lungs by damaging the lining of lung air sacs and small airways adjacent to or supplying them. It is a form of fibrosis (scarring) of the lungs that may result in the progressive loss of lung function. The lung tissue scarring stops oxygen being absorbed and can lead to respiratory failure, disability, or death. In the early stages of silicosis, the affected person may not experience symptoms. It is possible to have silicosis and not realise it. The first symptoms are often shortness of breath, a cough, occasional chest pain, loss of appetite and tiredness. As the disease progresses, the shortness of breath gets worse; this can become persistent and irreversible. In time, the cough becomes more severe and frequent, the chest pain can worsen, weight loss can occur, and night sweats can be experienced. In severe cases, respiratory failure may cause or result in death.

There are three types of silicosis: *acute silicosis* is very rare and results from short-term exposure to very large amounts of RCS (e.g., less than 1 year, may be weeks or months); *accelerated silicosis* results from short term exposure to large amounts of RCS (1 to 10 years of exposure); *chronic silicosis* results from long term exposure (10+ years) to low levels of RCS.

There is currently no proven cure for silicosis, though there are management strategies that may help reduce symptoms and slow progression. These include inhaled medications, oxygen therapy, a whole-lung lavage (flushing litres of a salt-water solution through each lung, under general anaesthetic, to ‘wash out’ silica particles) and lung transplantation. However, silicosis can be prevented by eliminating or minimising the generation and inhalation of RCS in the first place.

The size and scope of the policy problem

Crystalline silica is a common chemical in the earth’s crust and is found in many rocks and natural stones like granite, slate and sandstone, and is also present, often at high concentrations, in some manufactured products such as engineered stone, concrete, bricks and tiles. It is RCS generated from processing these materials that has the potential to cause harm. The silica containing material itself does not present a risk when undisturbed.

The crystalline silica content of common materials used across industries can vary significantly, ranging up to 97 per cent<sup>1</sup>:

Type	Amount of silica (per cent)
Marble	2
Limestone	2
Slate	25 to 40
Shale	22
Granite	20 to 45 (typically 30)
Natural sandstone	70 to 95

In 2022, it was estimated that there 584,050 workers were being exposed to RCS in the workplace<sup>2</sup>.

In Queensland, the following table provides a breakdown of the 386 accepted silicosis workers’ compensation claims by year and industry (2023/24 is a partial result, up to and including 31 March 2024):

Industry	Year accepted							Total
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	
Manufacturing	3	155	58	57	18	6	13	<u>310</u>
Mining	5	4	9	6	10	11	9	<u>54</u>
Construction	0	1	3	3	3	1	4	<u>15</u>
Other	0	0	0	2	3	2	0	<u>7</u>
<b>Totals</b>	<u>8</u>	<u>160</u>	<u>70</u>	<u>68</u>	<u>34</u>	<u>20</u>	<u>26</u>	<u>361</u>

It is important to note that, given the lag in silicosis symptoms presenting themselves, further cases of silicosis in Queensland are expected over the coming years.

Recently, Queensland concluded a RCS compliance campaign which targeted construction sites and workplaces where building materials are manufactured. This campaign operated between 1 May 2023 to 1 August 2023 and explicitly excluded engineered and natural stone benchtops from its focus. Workplace Health and Safety Queensland (WHSQ) audited 75 workplaces manufacturing construction elements and 93 construction sites, using materials that contain 1 per cent or more crystalline silica content or an unknown crystalline silica content.

<sup>1</sup> Table 1: Safe Work Australia Managing the risks of respirable crystalline silica from engineered stone in the workplace – Code of Practice

<sup>2</sup> Carey and Fritsch, 2022, “The future burden of lung cancer and silicosis from occupational silica exposure in Australia: A preliminary analysis”.

During these audits 137 enforcement notices were issued for RCS-related non-compliances consisting of 120 improvement notices, 10 prohibition notices, one electrical safety protection notice and six infringement notices. Another 47 enforcement notices were issued for non-compliances not related to RCS consisting of 36 improvement notices, eight prohibition notices and three infringement notices.

#### Objectives of government action

The objective of government action is to reduce workplace exposure to RCS, with the ultimate aim to prevent the incidence of silicosis.

The Queensland Government has taken significant action to deliver on this objective. This includes the development and introduction of the *Managing respirable crystalline silica dust exposure in the stone benchtop industry Code of Practice 2019* (Stone Benchtop Code) – a legally enforceable approved code of practice that establishes the standard of health and safety that must be achieved or exceeded for managing the risks associated with exposure to RCS in the stone benchtop industry. This includes work to fabricate, process, install, maintain, or remove engineered and natural stone benchtops.

Similarly, the *Managing respirable crystalline silica dust exposure in construction and manufacturing of construction elements Code of Practice 2022* (Respirable Silica Code) has also been introduced. This Code outlines how duty holders can meet existing requirements of Queensland's WHS legislation, including eliminating or minimising exposure to RCS at work.

Other actions delivered by the Queensland Government to reduce and prevent silicosis include:

- funding an initial health screen for current and former stonemasons, which supported nearly 1100 workers to undergo health screening;
- establishment of Queensland's Notifiable Dust Lung Disease Register, which allows Queensland Health to monitor and analyse the incidence of notifiable dust lung diseases (commenced on 1 July 2019);
- commissioning of a \$5 million international research project for medical research to improve the health and wellbeing of workers suffering from occupational dust lung disease;
- improvements to workers' compensation entitlements and support for workers diagnosed with pneumoconiosis and other forms of occupational dust-related lung disease; and
- funding \$600,000 towards Queensland University research investigating returning to the workplace after a diagnosis of an early-stage occupational dust lung disease.

Beyond the 2023 RCS compliance campaign mentioned above, WHSQ has undertaken 3 state-wide compliance campaigns focused on the stone benchtop industry since 2017. Overall, WHSQ identified positive change. While there is evidence to indicate that the Queensland Government's actions to date have been effective at improving regulatory compliance rates in the state, the findings of Safe Work Australia's (SWA's) Decision Regulation Impact Statement: *Managing the risks of respirable crystalline silica at work* (DRIS), dated February 2023, was that compliance was inadequate.

As part of their analysis, SWA pooled relevant jurisdictional compliance data (see *Table 9: State and territory compliance program outcomes (excluding Victoria)* of the DRIS). This data includes activity from 2018-mid-2021 across jurisdictions (except Victoria) and shows the various notices (improvement, infringement, enforcement, prohibition, immediate compliance, and penalty) issued during this time totalling 2691.

#### **What options were considered?**

The following six options (including the base case) were considered in the DRIS:

- **Option 1: Base Case** – Under this option, existing levels of compliance, enforcement, awareness, and education activities across jurisdictions would continue.

In addition, the base case also included measures that had been agreed to, but not yet fully implemented, including:

- the implementation of the SWA model Code of Practice: *Managing the risks of respirable crystalline silica from engineered stone in the workplace*, and

- amendments to the model WHS Regulations prohibiting uncontrolled processing of engineered stone, to clarify existing duties under the model WHS laws and recognising arrangements already enforced by WHS regulators.
- Option 2: National awareness and behaviour change initiatives to minimise the risks of RCS – Under this option, national awareness and behaviour change activities, guided by behaviour economics experts, would be focussed on duty holders in the construction, manufacturing, tunnelling, quarrying, demolition and mining industries and compliance with the model WHS laws.

The initiatives would seek to improve:

- duty holders' understanding of the risks associated with exposure to RCS;
  - knowledge of PCBUs on how and when to conduct a risk assessment, control risks and consult with workers; and
  - awareness and compliance of workers, PCBUs, and other duty holders with the requirements of the model WHS laws, such as when air and health monitoring is required.
- Option 3: Clarifying the existing requirements of the model WHS laws for high risk silica processes– Under this option, clarifying the existing requirements of the model WHS laws into specific regulations covering high risk silica processes, would not add additional requirements for PCBUs.
- Option 4: Implementation of a national licensing framework for PCBUs working with engineered stone – Under this option a national licensing framework would be based on the Victorian licensing of employers working with engineered stone. Aspects of the licensing framework included:
- PCBUs (not individual workers) undertaking engineered stone processes would be required to obtain and hold a licence with the state or territory WHS regulator. Licences would require renewal every 5 years;
  - Suppliers of engineered stone would be prohibited from supplying engineered stone except to licence holders;
  - Licensees would be required to provide information on the health risks and controls to workers prior to commencing work with engineered stone;
  - Licensees would have to undertake air monitoring and provide and pay for health monitoring for all workers undertaking an engineered stone process;
  - Licensees would be required to implement specific control measures, such as use of local exhaust ventilation, on tool dust extraction and/or water suppression, and the provision of training and respiratory protective equipment.

In addition to these framework aspects, this option was also reliant on the development of guidance material for PCBUs, as well as Regulators undertaking compliance audits and a national awareness campaign.

Importantly, this option was only focussed on engineered stone and did not address the RCS risks from processing CSS. Therefore, this option was provided for consideration in combination with Option 5b.

- Option 5a: Regulation of high risk crystalline silica processes for all materials including engineered stone – Under this option, and in line with Victorian health and safety regulations, definitions of crystalline silica substance, crystalline silica process and high risk crystalline silica process would be refined and then added to the Model WHS Regulations.

This option would also specify that PCBUs undertaking high risk crystalline silica processes must develop a readily accessible and comprehensive silica risk control plan that contains previous air monitoring and health monitoring results, as well as any other information about previous incidents, illnesses or diseases associated with exposure to RCS at the workplace.

Further, any construction work that involved high risk crystalline silica processes would be considered high risk construction work and a Safe Work Method Statement be required to be developed.

PCBUs would also be required to:

- provide workers with instruction, information and training about the health risks of RCS and appropriate controls;
- undertake air monitoring when the work involved a high risk crystalline silica process and provide air monitoring results to the WHS regulator where they indicate that the levels of RCS exceed the workplace exposure standards;
- provide and pay for health monitoring for all workers undertaking a high risk crystalline silica process.

This option would also be accompanied by a national awareness campaign and the development of supporting guidance material for PCBUs and workers.

– Option 5b: Additional regulation of high risk crystalline silica processes for all materials excluding engineered stone

Option 5b was developed so that it could operate in combination with Option 4 (a national licensing framework for PCBUs working with engineered stone). Option 5b is equivalent to Option 5a but would exclude engineered stone. This is because the proposed national licensing framework (Option 4) includes overlapping elements of Option 5a, such as requirements to undertake risk assessments, develop and implement risk control plans and undertake and report results of air and health monitoring.

– Option 6: Prohibition on the use of engineered stone

Under this option the processing of engineered stone would be prohibited, except under specific circumstances.

This option was modelled on Chapter 8 (Asbestos) of the Model WHS Regulations. A PCBU would be prohibited from carrying out, or directing or allowing a worker to carry out, work involving the processing of engineered stone, including manufacture, manipulation, fabrication or installation. Processing would include using power tools or other mechanical plant to cut, grind, trim, sand, abrasive polish or drill the engineered stone. The prohibition would apply to any product meeting the definition of engineered stone in the Model WHS Regulations.

Similar to those that are in place for asbestos, exemptions would apply to PCBUs undertaking work with engineered stone for the purposes of:

- sampling and identification;
- maintenance work on engineered stone surfaces installed before the date prohibition is enacted;
- removal or disposal of engineered stone (including transport for disposal);
- demonstrations, education or practical training; and
- genuine research and analysis.

PCBUs wanting to undertake exempt work with engineered stone would require a licence as outlined in option 4, including:

- developing and implementing an engineered stone control plan;
- ensuring appropriate controls are in place; and
- undertaking air monitoring and health monitoring.

As implementing this option would not address the significant risks of silicosis and silica-related diseases from other silica-containing materials, this option would be considered in combination with option 5b.

Please note, due to early feedback Option 6 was only included in SWA's analysis part-way through the process of creating this DRIS. Therefore, there is not the same level of analysis as with other options. Given Option 6 went on to be the subject of a separate DRIS, and has since been brought into effect in Queensland via the Work Health and Safety (Engineered Stone) Amendment Regulation 2024 on 1 July 2024, it is not analysed further in this IAS.

## What are the impacts?\*

\*Option-specific costs are based on information provided in the DRIS.

### Summary – Introduction of a stronger regulatory framework for crystalline silica substances

The options considered varied considerably, in terms of benefits and costs. Queensland's support for Option 5a was in greatest alignment to the Government's long-standing policy position and advocacy to SWA. It was also the most coherent in terms of Queensland's existing approach in the Respirable Silica Code.

### Cost of each option – industry, government and worker

The following table summarises the estimated net-present costs over ten-years.

Costs (\$million)	Option 1	Option 2	Option 3	Option 4	Option 5A	Option 5B	Option 6
Industry	\$0	\$0	N/A	\$16	\$168.7	\$159.9	N/A
Government	\$0	\$6.1	N/A	\$16.9	\$0.9	\$0.9	N/A
Workers	\$0	\$0	N/A	\$0	\$0	\$0	N/A
<b>Total</b>	<b>\$0</b>	<b>\$6.1</b>	<b>N/A</b>	<b>\$32.9</b>	<b>\$169.6</b>	<b>\$160.8</b>	<b>N/A</b>

No monetised costs were identified for **Option 1** as no additional activity was proposed beyond that which was already being undertaken. However, under this option there are a number of indirect costs that may result from an increase in silicosis and silicosis related illnesses such as:

- an increase in silicosis and silica-related health care costs, including hospitalisations and treatment;
- social and psychological costs for the affected worker and family; and
- future worker's compensation payments.

Increasing insurance premiums resulting from increased cases of silicosis and silicosis related diseases, and staff turnover for those diagnosed with silicosis or silica-related diseases may also be indirect costs.

**Option 2** monetised costs were limited only to Government. Costs would be limited to SWA and WHS Regulators to conduct awareness and behaviour change activities, specifically for planning and design (\$0.1) and roll out across industry sectors (\$6 million).

**Option 3** was only nominally in the DRIS, but not pursued by SWA. Originally, Option 3 was drafted to clarify the existing requirements of the Model WHS laws into specific regulations covering high risk silica processes. No additional requirements for PCBU's were proposed under this option. However, as a result of early feedback, changes were made to Option 5a (which included all the elements of Option 3). Therefore, Option 3 was removed as a separate option in the DRIS and will not be discussed further in the IAS.

For **Option 4**, the option-specific monetised costs cover:

- Cost to industry: Licence applications (\$1.6 million), licence fees (\$0.6 million), initial risk assessments (\$4.2 million), annual risk assessments (\$1.9 million), engineered stone control plans (\$1.3 million), preparation and participation in compliance audits (\$6 million), and air monitoring reporting (\$0.4 million).
- Cost to government: Implementing a national awareness campaign (\$0.9 million), licensing software (\$4.9 million), licencing framework administration (\$0.4 million), fee processing (\$6 million), and compliance and enforcement activities (\$4.8 million).

No option-specific costs were identified for workers.

It is important to reiterate that this option would not address the significant risks of silicosis and silica-related diseases from other silica-containing materials. Therefore, this option and its costs should be considered in combination with option 5b.

For **Option 5a**, the option-specific monetised costs cover:

- Cost to industry: Initial risk assessments (\$94 million), annual risk assessments (\$47.7 million), silica risk control plan preparation (all industries excluding construction) (\$12 million), and air monitoring reporting (\$15 million).
- Cost to government: Implementation of a national awareness campaign (\$0.9 million)

No option-specific monetised costs were identified for workers.

For **Option 5b**, the option-specific monetised costs cover:

- Cost to industry: Initial risk assessments (\$89.8 million), annual risk assessments (\$44.2 million), silica risk control plan preparation (all industries excluding construction) (\$11.6 million), and air monitoring reporting (\$14.3 million).
- Cost to government: Implementation of a national awareness campaign (\$0.9 million)

No option-specific monetised costs were identified for workers.

When the option-specific monetised costs of 4 and 5b are combine, this equates to being approximately 20 per cent higher to implement than the next largest cost option (option 5a). Critically, this combination would result in a \$16.9m higher cost to Government than option 5a. This additional spend would divert Government funding at the cost of other priorities.

The following non-monetised costs have also been identified, that apply to varying degrees for options 4, 5a, and 5b:

- Cost to PCBU's working with CSS – passing on compliance costs to retail prices for consumers with could impact sales and reduce revenue. Also, any additional compliance costs would raise the barrier to entry for new businesses.
- Cost to customers – compliance costs borne by industry may increase retail prices or reduce the product availability.

#### Benefits and Overall Effectiveness of Addressing the Policy Problem

As **Option 1** is the base case, it is cost neutral for all parties and would, therefore, not redirect any resources (financial or otherwise). However, incidence of silicosis and non-compliance with WHS regulations would not be expected to reduce. Thus, this option would be ineffective at achieving the Government's objective of action.

The investment in awareness and behavioural change initiatives in **Option 2** would be expected to improve compliance with WHS regulations and so reduced risks of exposure to RCS compared to the base case. However, the increased level of compliance is not expected to be to the same level of other options which include a regulatory aspect. Indeed, by not including a regulatory aspect there is a risk that RCS and silicosis would not be considered a serious issue, and so impede the effectiveness of compliance efforts.

Through the introduction of a licensing system and corresponding regulation aspect, **Option 4** would improve compliance regarding engineered stone. Critically, it could also garner insightful data on air monitoring and health monitoring. Over time, this could inform regulators about the scale of the true risk of RCS in the workforce, as well as help to determine the effectiveness of control measures.

However, as option 4 focuses exclusively on engineer stone, by its nature the effectiveness of this option is limited in addressing the policy problem, rather than addressing CSS as a whole. This option would need to be considered alongside option 5b (discussed at 5b).

Please note, licensing was explored further by SWA later in 2023 during the development of the approach to ban engineered stone. Ultimately, further consideration of existing licensing, authorisation, and notification frameworks identified merit for a notification framework to work with legacy engineered stone. This notification framework was incorporated nationally in an amendment to the Model WHS Regulation and brought into effect in Queensland via the Work Health and Safety (Engineered Stone) Amendment Regulation 2024 on 1 July 2024.

**Option 5a** would be expected to improve compliance with WHS regulations being as it is the wide-ranging and encompasses all CSS, including engineered stone, and also introduces a regulatory aspect. Moreover, risk assessment and mitigation are key elements of this option, with graduated requirements applied to

PCBUs consistent with the risk profile of the CSS processing being undertaken. This is a benefit as awareness and compliance resources could be focused on the highest risk CSS processing, whilst not discounting other CSS processing. Further, as with option 4, option 5a could accrue insightful data to inform compliance levels and any future regulatory change.

Although anticipated to be effective in addressing the policy problem, it is unlikely this option would solely address it. This is because the historical poor compliance with WHS regulations and the nature of processing engineered stone benchtops, panels and slabs which can release high levels RCS. This consideration has been addressed through Queensland implementing a ban on engineered stone benchtop, panels and slabs (Option 6) on 1 July 2024.

When combined with option 4, **option 5b** would be the most extensive and wide-ranging regulatory intervention for both engineered stone and CSS. This would be expected to improve compliance with WHS regulations. As previously noted, option 5b is equivalent to 5a, excepting in engineered stone, which is addressed in Option 4. Therefore, the benefits and effectiveness of option 5b specifically are not detailed further.

The following benefits have also been identified, that apply to varying degrees across options 2, 4, 5a, and 5b:

- Reduced rates of premature death from, and reduced numbers of people living with, silicosis and silica-related diseases.
- Reduced health expenditure related to hospitalisations, outpatient care and care in the home, due to a reduced number of cases of silicosis and silica-related diseases.
- Avoided mental health and life impacts for affected workers, family and friends;
- Improved worker productivity from reduced ill health and extended work life;
- Avoided workers' compensation claims (and associated insurance premia) due to the reduced number of cases of silicosis and silica-related diseases.

While the breakeven analysis (see *What is the recommended option and why?*) does provide a monetised value based on the national Office of Impact Analysis' guidance on the value of a statistical life and value of a disability adjusted life year, it does not predict the extent to which this benefit is achieved by each of the Options. This is due to uncertainty and insufficient data.

Instead, it accounts for the number silicosis cases that would need to be prevented in order for the estimated benefits to outweigh the estimated costs. Further assessment of the breakeven analysis is provided in the below section (*What is the recommended option and why?*).

## Who was consulted?

### Consultation – who and when

Preliminary consultation was undertaken by SWA with 23 stakeholders. These stakeholders included WHS Regulators, industry peak bodies, employee representatives, employer representatives, and health organisations. These consultations consisted of 3 workshops and 4 discussions with individual organisations and informed the drafting of the Consultation Regulatory Impact Statement (CRIS), including development of the problem statement, evidence bases, and the options.

From 30 June 2022 to 15 August 2022, SWA conducted a round of public consultation on the CRIS. Submissions were accepted via Safe Work Australia's consultation platform, Engage, with late submissions also accepted where requested. 67 submissions were received from a range of stakeholders, including:

- commercial enterprises, including engineered stone suppliers;
- lawyers;
- industry groups;
- peak health bodies;
- commonwealth, state and territory government departments and agencies;
- unions;



- academics; and
- individuals.

Overall, there was strong support for further government intervention to reduce workplace exposure to RCS.

There was broad support for the problem statement, which was developed through the preliminary consultations.

Only a small number of businesses and industry groups argued the existing regulations are adequate to address the need. Stakeholders were supportive of the objectives of government intervention. However, unions, professional organisations (AIOH) and peak health bodies consider the primary objective of government intervention should be the reduction of RCS exposure at work and elimination of silicosis, in line with the All of Governments response to the National Dust Disease Taskforce final report.

Of the regulatory and non-regulatory options put forward, there was a marked lack of support for maintaining the status quo (option 1). The non-regulatory option supporting awareness and behaviour change initiatives (option 2) received consistent support amongst all stakeholder groups. Many of these stakeholders expressed support for a combination of option 2 with other regulatory options to address the problem. There was significant stakeholder support for further regulation, with relatively evenly distributed support for each of the proposed regulatory options. A number of submissions called for mandatory silica awareness training for workers.

The majority of stakeholders agreed that the methodology used for options 1-5 was appropriate to estimate the costs to industry and government.

#### **What is the recommended option and why?**

##### Recommended option

Option 5a: Regulation of high risk crystalline silica processes for all materials including engineered is recommended. Of the other options in the DRIS:

- There was very little support Option 1 – the base case, and this option does not meet the objective of government action.
- Awareness campaigns described in Option 2 are expected to improve compliance, however selecting this option as preferred may signal that RCS is not serious and some stakeholders were strongly opposed to any exclusively non-regulatory response. Instead, this activity is recommended to be folded in with and complement Option 5, which did mention actually that an awareness campaign and associated guidance material would be needed for implementation.
- Option 3 was deleted by SWA following feedback.
- Option 4 and 5b combined provided little benefit compared to 5a but did come with a much larger administrative and financial burden for industry and government. It would also be a more complex and time-consuming option to implement across jurisdictions – thereby delaying implementation of health improvements and not addressing the policy problem.
- As Option 6 was added during the development of the DRIS, it required further analysis and consultation. This was the subject of a later DRIS and has been implemented separately to this process.

Conversely, Option 5a is recommended because feedback showed that there was clear support for government action. Stakeholders agreed that there is a strong need to ensure that any action is protective of all workers who are exposed to RCS, and not limited to the engineered stone sector.

There was support from all stakeholder groups to undertake awareness and behaviour change initiatives (option 2), in combination with regulatory change. With the support of activities in Option 2, Option 5a could achieve the objective of reducing exposure to RCS through:

- regulation of high risk crystalline silica processes for all crystalline silica materials, not just engineered stone;
- improved PCBU awareness of their duties under the model WHS legislative framework, including requirements to undertake air monitoring and provide health monitoring and training to workers; and
- implementation of appropriate risk control measures through development and implementation of silica risk control plans.

The breakeven analysis for this option also indicates that the benefits (in terms of illnesses prevented and lives saved) are highly likely to exceed the cost impact, though it must be acknowledged that there are non-monetised costs and benefits which cannot be factored into this analysis and the propensity of engineered stone workers to be overrepresented in the data may skew the analysis:

	Option-total cost (\$m)	Breakeven cases (total)
Option 2	6.1	<u>1</u>
Option 4	32.9	<u>7</u>
Option 5a	169.6	<u>37</u>
Option 5b	160.8	<u>35</u>

The above analysis is based on the national Office of Impact Analysis' guidance on the value of a statistical life and value of a disability adjusted life year and shows the estimated number of cases required to break even rounded to the nearest whole number.

The breakeven cases needed to support Option 5a nationally are 37 cases over a 10-year period under this assessment.

As stated by SWA in the DRIS, due to uncertainty and insufficient data, it is not possible to assess effectiveness of each option in monetary terms.

#### Jurisdictional Undertakings

On 28 February 2023, WHS Ministers met to consider the above options and analysis from the DRIS. Ministers agreed to Option 2: Delivery of national awareness and behaviour change initiatives and Option 5a – stronger regulation of high-risk crystalline silica processes for all materials (including engineered stone) across all industries. They also tasked SWA to undertake further analysis and consultations on an engineered stone ban.

On 22 March 2024, WHS Ministers agreed to the policy parameters for amendments to the Model WHS Regulations to strengthen regulation of crystalline silica processes across all industries. These parameters were to:

- develop a Silica Risk Control Plan aimed at identifying hazards associated with crystalline silica processes and measures to control these risks;
- provide additional training for workers or others likely exposed to the risks associated with high risk crystalline silica processes;
- undertake air and health monitoring for workers; and
- report workplace exposure standard exceedances to the relevant WHS regulator.

On 10 May 2024, WHS Ministers agreed to amendments to the Model Amendments, which included the Model Work Health and Safety (Crystalline Silica Substances) Amendment 2024 to give effect to a stronger regulatory framework for all crystalline silica processes to protect workers from exposure RCS across all industries.

## Impact assessment

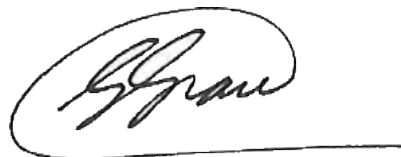
	First full year	First 10 years**
<b>Direct costs – Compliance costs*</b>	Refer to Decision RIS	Refer to Decision RIS
<b>Direct costs – Government costs</b>	Refer to Decision RIS	Refer to Decision RIS

*Decision Regulation Impact Statement: Managing the risks of respirable crystalline silica at work (DRIS).*

## Signed



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Graham Fraine  
Director-General  
Department of State Development and Infrastructure  
Date: 13 / 08 / 2024



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Grace Grace MP  
Minister for State Development and Infrastructure  
Minister for Industrial Relations and  
Minister for Racing  
Date: 16 / 08 / 2024