## Ministerial Meeting Briefing Note

The Honourable Grace Grace MP Minister for Education and Minister for Industrial Relations

## MEETING DETAILS: Shine Lawyers, Thursday 9 August 2018, 9AM – Silica in stonemason industry

## Key issues

- On Thursday 9 August 2018, the Minister is meeting with representatives from Shine Laywers, National Special Counsel for Dust Diseases Litigation and Managing Director, regarding exposure to silica dust in the stonemason industry. The Departmental representative attending is Ms Janene Hillhouse, Executive Director, Workers' Compensation and Policy Services, Office of Industrial Relations (OIR).
- On 9 July 2018, National Special Counsel for Dust Disease Litigation, Shine Lawyers, wrote to the Minister regarding silica exposure among stonemasons and asking the Government to consider a <u>parliamentary</u> inquiry into silica exposure in the stonemason industry (**Attachment 1**). represents two injured workers with silicosis related claims.

Request for parliamentary inquiry on silica in the stonemason industry

- In 2017, the Parliamentary Select Committee into Coal Workers' Pneumoconiosis (CWP) (the Select Committee) had its terms of reference extended to include occupational respirable dust exposure for other workers. This included consideration of workers exposed to silica.
- 4. Traditionally, silicosis claims have been well managed by Queensland's workers' compensation scheme. These workers' all have access to statutory benefits and common law damages by virtue that they will always have an assessed degree of permanent impairment.
- 5. Given that the Select Committee considered other respirable dusts including silica dust, a parliamentary inquiry is not supported. All available evidence was considered by the Select Committee and OIR is of the view that workers' in the industry will be best served by focusing Workplace Health and Safety Queensland (WHSQ) resources on compliance campaigns, rather than a further inquiry.

## Tripartite Dust Disease Reference Group

- 6. OIR is establishing a tripartite dust diseases reference group with representation from the unions, industry associations, WorkCover, a medical specialist and other government regulatory agencies such as Department of Natural Resources, Mines and Energy and Queensland Health.
- 7. The reference group will contribute to the development of the compliance strategy for managing exposure to silica dust, commission research and contribute to development of an industry benchmark and industry best practice guidance material.

## Compliance campaign for stone benchtop fabrication

- 8. Research, both in Australia and overseas, has found that workers fabricating countertops from granite and other quartz-rich stone using hand tools can be exposed to concentrations of respirable crystalline silica, well above exposure standards, if adequate controls are not used. Silicosis has been reported in countries including Spain, Israel and Italy and recently Australia among workers making bench tops from quartz composite artificial stone.
- 9. Artificial stone, such as Ceasarstone, commonly used in the fabrication of benchtops can contain up to 95% crystalline silica whereas a natural stone such as granite contains approximately 35%.
- 10. A two stage targeted intervention of workplaces using artificial stone in the fabrication of benchtops commenced in 2017 to inform the regulation of the stone benchtop fabrication industry (Attachment 2). Evidence gathered from both stages will inform the review of the workplace exposure standard for respirable crystalline silica, the development of a code of practice and compliance campaigns.
- 11. Between October 2017 and July 2018, the first stage of the compliance campaign was conducted targeting ten stone benchtop fabrication businesses. Five prohibition notices were issued for activities involving silica exposure to workers, dry cutting, and guarding and plant maintenance issues. A further five improvement notices were issued for health monitoring, fit testing, systems of work and inadequate dust control issues.
- 12. To assist PCBUs and workers understand the risks, web content and guidance material on stone benchtop fabrication is being developed. WHSQ is also making direct contact with fabrication businesses via mail-outs, presentations and industry forums to educate PCBUs and workers about silica risks and will collaborate with suppliers and importers of stone benchtops to ensure a consistent compliance message about dust control.
- 13. The second stage of the compliance campaign will commence in August 2018. It is planned to audit all identified stone benchtop fabricators by the end of 2018, estimated to be 100 businesses. However, due to the large number of subcontractors in the industry sector, this number may rise as the campaign continues.
- 14. As part of the second stage campaign, in addition to issuing notices as outlined in paragraph 12, where air monitoring detects the level of exposure to silica dust is 50% of the national exposure standard, PCBU's will be required to commence a health surveillance program for their workers and engage an occupational physician to monitor the program.
- 15. In addition, duty holders within the supply chain such as kitchen suppliers, Bunnings and IKEA, will be targeted to ensure appropriate management systems are in place to protect sub-contractors from silica dust exposure.

## Proposed code of practice

16. Evidence from the compliance campaigns, will be used to inform development of a code of practice to provide a minimum standard for controlling exposure to silica dust in the stone benchtop manufacturing industry.

## National review of workplace exposure levels

17. Safe Work Australia is reviewing the occupational exposure levels for airborne contaminants, including silica. The review involves a scientific, evidence-based assessment of occupational exposure levels to hazardous airborne contaminants.

- 18. The current national workplace exposure standard for respirable crystalline silica is 0.1 mg/m<sup>3</sup>. This standard is currently under review with a proposal to halve the national exposure standard to 0.05 mg/m<sup>3</sup>.
- 19. On 1 August 2018, Safe Work Australia published the consultation regulatory impact statement (consultation RIS) for the workplace exposure standards framework.
- 20. The consultation RIS will assist Work Health and Safety (WHS) ministers to determine the impact of, and best way to implement an update to the workplace exposure standards. It also explores if the workplace exposure standards should remain mandatory under the model WHS laws or if advisory status is more appropriate.

## **Media Implications**

21. *The Courier Mail* published an article on 23 July 2018 about silicosis in the stonemason industry and representations about it to the Minister by Shine Lawyers.

## Background

- 22. Crystalline silica (quartz) is a common mineral found in most rocks, sands, and clays and products such as concrete, mortar, bricks, natural and composite stone benchtops. Dust containing respirable crystalline silica is generated by high-energy processes such as cutting, sawing, grinding, drilling, polishing and crushing of silica-containing materials.
- 23. Respirable crystalline silica is a class 1 carcinogen and occupational exposure to it can cause debilitating health effects including silicosis and lung cancer. Silicosis is one of three primary types of lung disease that are classified as a pneumoconiosis.

Action Officer	Endorsed by:	Endorsed by:
Ben Christiansen	Paul Goldsbrough	Simon Blackwood
Manager, Work and	Executive Director	Deputy Director-
Electrical Safety	WHS and	General Office of
Policy	Engagement Policy Services	Industrial Relations
(	Sch 4/3/3	
	Date: 26/07/2018	Date: 06/08/2018

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ACTION REQUIRED Department	ACTION REQUIRED Minister's Office	TIMEFRAMES
Please review and draft fo Minister's Office:	Advisor to call in first instance	Due:
Briefing Note	Advisor to draft reply internally	MP / Key Stakeholder (5 days) Due:
Dot Points	Advisor to refer to Department to have reply drafted after initial phone call	Member of Public (15 days) Due:
Minister Reply	For diary meeting	0-5-
Advisor Reply	Chief of Staff Comments:	required Please advise any action required
Dept officer to call in first instance		
DG Reply	Signature	
	Advisor Comments:	_ Date:
cc to:	Department to draft reply	
Other:		
MP Correspondence:		
Copy provided to CLO		
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Please review & draft reply to:	Received in MESU: 19 07 /2018	Date: 18/74/6 -
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	ignature.	<u></u>

## Minister for Education and Minister for Industrial Relations

1 William Street Brisbane 4000 PO Box 15033 City East Queensland 4002 Australia Telephone +61 7 3719 7110 Email: education@ministerial.qld.gov.au Email: industrialrelations@ministerial.qld.gov.au

National Special Counsel – Dust Diseases Shine Lawyers Email:\_\_\_\_\_@shine.com.au

Dear

Thank you for your letter dated 9 July 2018 and meeting with advisors from my office and the Office of Industrial Relations (OIR) on 9 August 2018, to discuss your concerns about the health and safety of workers exposed to respirable crystalline silica (silica) in the engineered stone fabrication industry. I sincerely apologise for being unable to attend this meeting.

I was saddened to hear about the impact that exposure to silica has had on the health of \_\_\_\_\_\_and his family, and other workers in the industry. Unfortunately, exposure to silica has changed the lives of too many Queenslanders, and I commend your commitment to ensuring the health and wellbeing of workers.

Please be assured the Palaszczuk Government is adopting a multi-faceted strategy to minimise the exposure of workers to silica in the stone benchtop manufacturing industry and to lead positive change within the industry's safety culture.

Workplace Health and Safety Queensland (WHSQ) is establishing a Tripartite Dust Disease Reference Group with representatives from unions, industry associations, WorkCover Queensland, medical specialists and other government agencies, including the Department of Natural Resources, Mines and Energy, and Queensland Health. The reference group will assist with development of future compliance strategies for managing exposure to silica, the development of industry benchmarks, best practice guidance material, and identify training opportunities.

The advice of the Tripartite Dust Disease Reference Group and evidence gathered during the compliance campaign, will assist in developing a code of practice to provide a minimum standard for reducing exposure to silica in the workplace. I welcome your input into the development of the code of practice and invite you to provide my office with any relevant information on silica exposure at the workplace.

At the workplace level, WHSQ's compliance campaign in the engineered stone benchtop industry commenced in October 2017, with the first stage targeting 10 stone benchtop manufacturing businesses. During stage one of the audits, air monitoring was conducted and the results of this air monitoring has assisted in identifying relevant work tasks likely to be associated with exposure to silica, including those tasks associated with exposure at greater than 50% of the current workplace exposure standard.

Stage two of the compliance campaign commenced in August 2018. During unannounced visits, inspectors will assess the risk of exposure to silica of all identified stone benchtop manufacturers, and where relevant, subcontractors in this industry.

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Based on knowledge gained during stage one of the likely airborne silica concentrations associated with various stone fabrication tasks, inspectors will audit against four key areas:

- lowering exposures to so far as reasonably practicable by ensuring best practice controls are implemented;
- prohibiting uncontrolled dry cutting, grinding or polishing;
- mandating the use of respiratory protective equipment; and
- implementing health monitoring.

Where required, inspectors will:

- prohibit dry cutting of benchtops that are not using local extraction ventilation and/or wet methods;
- issue improvement notices requiring health monitoring be conducted where a worker's exposure is likely to be greater than 50% of the workplace exposure standard; and
- issue improvement notices requiring proper use of respiratory protective equipment and other measures to reduce exposure to silica.

It is recognised that in addition to this compliance campaign, improving knowledge about the health risks associated with silica and increasing awareness about safe work practices within the industry are key factors in changing workplace culture. WHSQ will be reviewing and developing guidance material and contacting stone benchtop businesses through mail-outs, presentations and industry forums to educate employers and workers about the risks of exposure to silica dust.

If you require any further information or assistance, please contact Ms Janene Hillhouse, Executive Director. Workers' Compensation Policy and Services, Office of Industrial Relations, on (07)

Yours sincerely

GRACE GRACE MP Minister for Education and Minister for Industrial Relations

Ref: 18/422947; R0000073186; F0000007363

## Minister for Education and Minister for Industrial Relations

National Special Counsel – Dust Diseases Shine Lawyers Email @shine.com.au 1 William Street Brisbane 4000 PO Box 15033 City East Queensland 4002 Australia Telephone +61 7 3719 7110 Email: education@ministerial.qld.gov.au Email: industrialrelations@ministerial.qld.gov.au

Dear

Thank you for your emails dated 18 and 19 September 2018 regarding a solution to protect workers from the risk of silica exposure. I apologise for the delay in responding.

I appreciate your passion for this cause and your efforts in developing a proposal to introduce a licensing regime for stone masonry workshops. As you would be aware, the Palaszczuk Government's current priority is to ensure the immediate ceasing of uncontrolled dry cutting and grinding of engineered stone benchtops and to ensure affected workers are adequately compensated under our recently amended workers' compensation scheme.

This Government is investigating options to amend the Work Health and Safety Regulation 2011 to reinforce a prohibition on the uncontrolled dry cutting, grinding and polishing of engineered stone containing high levels of respirable crystalline silica. A range of regulatory options is being considered, including your proposal for implementing a licensing regime, as part of the consideration of the most efficient ways to achieve higher safety outcomes.

Work is also progressing on developing the Code of Practice on controlling exposure to silica, and the first meeting of the tripartite industry working group, including representatives of unions, industry, and medical and technical experts, will be held in October 2018. I understand you spoke with Mr Bradley Bick, Acting Executive Director, Work Health and Safety Engagement and Policy Services, Office of Industrial Relations, on 11 October 2018, who provided an undertaking to consult with you and peak legal bodies once the draft regulations and code are available for comment.

Importantly, the current focus remains on phase two of Workplace Health and Safety Queensland's compliance audit campaign which is now underway, with all 150 stone benchtop fabrication workplaces in Queensland on track to be audited by the end of 2018. The audits will be undertaken by 22 specially trained inspectors supported by occupational hygienists.

I have also written to the Honourable Kelly O'Dwyer MP, Minister for Jobs, Industrial Relations and Women, to alert the Australian Government to the seriousness of this issue and to request consideration of a national response, including importation controls, new exposure standards, regulations and a code of practice for the industry.

If you require additional information or would like to discuss this matter further, please contact Mr Bick on (07)

I trust this information is of assistance.

Yours sincerely

GRACE GRACE MP Minister for Education and Minister for Industrial Relations

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## **Briefing Note**

The Honourable Grace Grace MP Minister for Education and Minister for Industrial Relations

## Action required: For Noting

## Action required by: N/A

Critical: To inform the Minister of the outcomes and risks identified in Workplace Audits

## SUBJECT: SILICA DUST EXPOSURE IN STONE (AND ENGINEERED STONE) BENCH TOP MANUFACTURING

## Summary of key objectives

- Compliance audits of manufacturers in the stone (and engineered stone) bench top industry (the industry) have identified significant risks to workers of exposure to respirable crystalline silica due to poor work practices and inadequate (or lack of) control of silica dust. As at 14 September 2018, 28 workers' compensation claims have been lodged for silica-related illness from workers in the industry.
- OIR is undertaking comprehensive compliance, enforcement, education and awareness
  activities in response to the audit findings, to ensure duty holders in the industry comply
  with their duties under the Work Health and Safety Act 2011 (the Act) to control exposure
  to silica dust and monitor the health of workers. WorkCover Queensland (WorkCover) has
  sought support to provide funding for further health monitoring in the industry.

## Key issues

## Outcomes of compliance and enforcement activities

- Phase 1 of compliance audits were completed from October 2017-July 2018 targeting ten South East Queensland manufacturers in the stone bench top industry. Five prohibition notices were issued relating to silica exposure, dry cutting, guarding and plant maintenance issues. 23 improvement notices were issued for health monitoring, testing of respiratory protective equipment and inadequate dust control. In early September 2018 inspectors re-visited each of the audited workplaces to ensure ongoing compliance.
- 2. Phase 2 of the audits are expected to commence mid-September 2018 with around 150 workplaces being audited by 22 inspectors supported by occupational hygienists. These inspectors are undertaking training. All Queensland stone bench top manufacturers will be audited by Workplace Health and Safety Queensland (WHSQ) by the end of 2018. WSHQ is also intending to investigate duty holders where health monitoring results are positive and is seeking Crown Law advice as to whether it can investigate other duty holders in the stone bench top supply chain.
- 3. WorkCover has proposed funding for the initial health screening for employees of WHS nominated employers in the stone bench top industry. This is supported on the grounds that it will support both industry and early identification and management of silica related injuries.
- 4. A timeline of OIR compliance activities in relation to silica exposure is provided at **Attachment 1**.

## Communication and engagement with stakeholders to enforce compliance

- 5. WHSQ has been successfully implementing a range of activities in response to the Queensland Inquiry into the re-identification of Coal Workers' Pneumoconiosis (the CWP Inquiry), including publishing detailed guidance material on the management of risks associated with work-related exposure to respirable dust. However, the recent audits have revealed a significantly shorter latency period for silicosis than previously thought.
- 6. To respond to this, a detailed industry safety alert 'Silicosis in stone bench top fabrication' (Attachment 2) will be issued to immediately alert industry of the serious risks associated with silica exposure. In the week of 17 September WHSQ will also publish 'Protecting workers from exposure to respirable crystalline silica guide to safe bench top fabrication and installation' (Attachment 3). This guide clearly states the various controls required to protect workers' health, including engineering, isolation, work practices, personal protective equipment, worker training and consultation.
- 7. The guide and alert provide clear and urgent advice on immediate actions to be taken in the workplace and legal requirements to be complied with to ensure worker safety. Currently Queensland has a workplace exposure standard for crystalline silica of 0.1 milligrams per cubic meter (mg/m<sup>3</sup>). OIR considers that compliance with the controls measures in the safety alert and guide will ensure workers are not exposed to greater than half of the exposure standard (i.e. 0.05 mg/m<sup>3</sup>) and will keep Queensland workers in the industry safe.
- 8. The safety alert and guide will be distributed immediately to industry through a direct letter from the Deputy Director-General of OIR to all stone bench top manufacturers being audited as well as the Australian Stone Advisory Association (ASAA) (**Attachment 4**), and through publication of web content, through eSafe Construction, and via social media.

### Next steps

- 9. <u>Safe Work Australia (SWA)</u> is reviewing the workplace exposure levels for airborne contaminants, including silica, and it is proposed to reduce the national exposure standard for crystalline silica from 0.1 mg/m<sup>3</sup> to 0.05 mg/m<sup>3</sup>. OIR understands that SWA is prioritising- respirable crystalline silica and respirable coal dust as a priority at the request of the Queensland Department of Natural Resources, Mines and Energy, and is planning to have recommended exposure standards by the end of 2018. A consultation regulatory impact statement (RIS) on workplace exposure standards is expected to be released in late 2018. OIR also notes that the Royal Australian and New Zealand College of Radiologists wrote to the Federal Minister for Jobs, Industrial Relations and Women outlining their concerns about silicosis and the industry on 14 September 2018 (Attachment 5).
- 10. The Victorian Trades Hall Council released a silica safety standard of 0.025 mg/m<sup>3</sup> in response to the NSW inquiry, and OIR is of the view that this should also be pursued in a progressive manner in Queensland. To achieve this, it is recommended the Minister seek advice from experts in relation to the standard. The Minister also wrote to the Federal Minister for Jobs, Industrial Relations and Women calling for the fast tracking of the RIS (Attachment 6). The outcomes of this will inform the development of a code of practice (the code) outlining the minimum standard for controlling exposure to silica in the industry. A tripartite industry working group will be established to inform the code, with working group members to include the CFMMEU (construction division), AMWU, Australian Industry Group, ASAA, Department of Natural Resources Mines and Energy, and medical and technical experts.
- 11. To ensure consistent case detection and management for workers suffering from silicosis, WHSQ and WorkCover will also host a roundtable with respiratory physicians, radiologists and occupational physicians to discuss issues such as identification, diagnosis and the

nature and frequency of health monitoring for the continuing workforce in the industry. It is anticipated this will be held in late September or early October 2018. Following the roundtable, a joint seminar will be hosted in October 2018 between WHSQ and WorkCover for businesses and affected workers and families on safe work practices and the supports and resources available to workers affected by silicosis.

12. OIR has established an internal governance group (including WorkCover) to provide strategic oversight of silica risks in the industry and ensure consistent compliance auditing. OIR will brief union and industry stakeholders on these matters as soon as possible.

## Workers' compensation

- 13. To date, 28 claims have been accepted by WorkCover for silicosis or silica-related disease from stonemasons in the stone bench top manufacturing industry. Of these claims, six have a confirmed diagnosis of Pulmonary Massive Fibrosis (PMF) with a poor prognosis (life expectancy of 3-5 years), including two under 40 years of age. Further diagnoses of PMF are likely. These claims falls across eight employers with three employers the subject of 20 claims. These workplaces were required to undertake worker health monitoring as a result of recent compliance audits. Data concerning silicosis claims, with breakdown of claims by employer, is at Attachment 7.
- 14. WorkCover is working closely with workers, employers and medical professionals to ensure workers in the industry who make a claim for silicosis are supported and have their claim determined as quickly as possible. Within 48 hours of receiving a claim WorkCover will contact the worker to explain their processes. To ensure timely determination of the claim WorkCover is working closely with doctors and employers to confirm the workers' diagnosis and occupational exposure history. Each worker will have a chest x-ray read by a radiologist who is a qualified b-reader and referred to the respiratory specialist for confirmation of their diagnosis. WorkCover is also offering adjustment to injury counselling to help support workers (taken up by three workers to date).
- 15. A small number of workers remain with their current employer,

WorkCover

Sch 4/3/3 personal information is currently engaging in discussions with workers, employers and medical specialists regarding safe return to work options. While a decision is being made about safe return to work options, WorkCover is covering the workers' lost wages. One worker is currently in host employment and two have elected to seek lump sum payment and pursue common law damages. WorkCover is also seeking information from treatment respiratory specialists about treatment options available to these workers and have currently approved 5 workers to undergo procedures for a bronchoscopy with endobronchial ultrasound to gain insight regarding the disease activity.

16. Detail on the WorkCover treatment of these claims is at **Attachment 8**. This attachment also outlines amendments made in response to recommendations arising from the CWP Inquiry, as well as the extended Terms of Reference for this inquiry concerning other occupational respirable dust issues. A factsheet has been prepared for workers in the stone bench top industry to advise them of their rights, responsibilities, entitlements, treatment, \_-care and support options through the workers' compensation scheme (Attachment 9). This will be distributed to all stone top manufacturers with the letter from the Deputy Director-General of OIR.

## **Media implications**

17. The Courier Mail published an article on 23 July 2018 about silicosis in the stonemason industry and representations about it to the Minister by , Shine Lawyers (Attachment 10). The article incluesincludes statements from the Minister to the effect that WSHQ is developing a code of practice on high risk dust areas (including stone benchtop manufacturing) and that all stone benchtop manufacturers will be audited by the

end of 2018.	The Minister's office met with	on 9 August	2018 to	discuss	his
concerns.					

## Background

#### Risks and existing framework in Queensland

- 18. An overview of crystalline silica and its health effects is at Attachment 11. While the risk of exposure to silica exists for workers of both natural and engineered stone, the risks are much greater when working with engineered stone as it contains up to 90 per cent crystalline silica, compared to 5-50 per cent crystalline silica in natural stone. The particular dangers of working with engineered stone are compounded by significant growth in the engineered stone market, due to the lower cost, improved durability, and hardness of engineered stone compared to natural marble and granite. Countertop industry research reports project global demand for engineered stone benchtops increasing by 2.3 per cent annually to 2021, with the Australian market to reach demand for 4.15 million metres squared by 2021 (Global Countertops Market Report).
- 19. The current WHS legislative framework adequately addresses the matter of exposure to respirable silica by requiring duty holders to ensure no person at the workplace is exposed to a substance that exceeds the exposure standard; to conduct air monitoring; eliminate or minimise exposure to respirable silica and health monitoring of workers.

#### Response to the NSW Parliamentary Inquiry

- 20. A New South Wales (NSW) Parliamentary Inquiry *First review of the Dust Diseases scheme* outlined recommendations in response to an increase in the number of stone bench top industry workers diagnosed with silicosis. On 11 July 2018 NSW announced the establishment of a taskforce to review safety standards and identify improvements for the industry, and is pursuing development of a national dust diseases data collection system. Three meetings have been held to date, focused on identifying appropriate expertise and whether regulatory amendments are required. Queensland is to convene a similar industry working group to inform the development of a silica code, and will seek to engage in efforts to establish a national data collection system.
- 21. The NSW Government is updating its factsheets and brochures to explain the connection between receipt of applications under its Dust Diseases scheme and payment of benefits, as well as allowing for online applications. While WorkCover already allows for online claims and lists silicosis as an example of a work-related respiratory disease on its website, there is scope to include more information on the website specific to silicosis (as is currently present for CWP). NSW supported in-principle the establishment of a statutory internal appeals panel to provide an affordable and independent avenue to review decisions about the Dust Diseases scheme eligibility, but has noted this is a decision for Parliament.

#### Recommendation

That the Minister:

Director, WESP ED - WHS EPS

18/09/2018

DDG OIR

18/09/2018

- note the compliance, enforcement, education and awareness activites activities being undertaken by OIR in response to findings from recent compliance audits of stone bench top manufacturers that have identified that workers are at significant risk of exposure to respirable crystalline silica; and
- **support** the initiative of WorkCover Queensland to fund the initial health screening for employees of WHS nominated employers in the stone bench top industry;

NOTED			APPROVED ENDORSED	NOT APPROVED
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/ Minister's	/ s comments		1	Ι
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Action Officer Andrea Fox	Endorsed by: Brad Bick	Endorsed by: Simon Blackwood		

## Timeline – Respirable Crystalline Silica interventions by Office of Industrial Relations - Workplace Health and Safety Queensland

Date	What Happened
2017 August	NSW Standing Committee on Law and Justice - First review of the Dust Diseases
	scheme recommends 'That the relevant Minister urgently convene a taskforce of
	industry, regulatory and workforce representatives to review safety standards in
	the manufactured stone industry and consider regulatory changes necessary to
	protect workers in the industry.'
	In regard to an emerging occurrence of silicosis,advised the Committee
	that she was aware of an increasing number of cases across the manufactured
	stone industry:
	Recently there have been several cases of sincosis anaginosed in New South Wales from the angingered stone products industry, that is the
	manufacture of Caesarstone—which have arisen despite evisting
	legislation. One of these nations is currently awaiting a lung transplant
2017 October -	Oueensland commences Stone benchton: stage 1 audits
July 2018	- 10 targeted assessments consisting of 3 days of sampling
,	- Off-site analysis
	- Control effectiveness evaluated
	<ul> <li>Hygiene report provided for future use</li> </ul>
	- Dry-cutting prohibited
	<ul> <li>Health monitoring required</li> </ul>
	<ul> <li>Follow-up contact/visits where required.</li> </ul>
2018 May	Construction dust: respirable crystalline silica web page updated
2018 May -	Co-development of respirable dust bench-marking tool with coal terminals
September	
2018 June	SWA provide ethnographic survey results which are incorporated into Phase 2
2010 1000	audit plan
2018 June	29/6 The Project contact OR for Interview.
2018 July	9/7 Shine lawyers, raise issue with minister, call for inquiry
2018 July	22/7 Minister appounded that all fabrication workshops would be visited
2018 July	OIR refines plan for silica benchton stage 2
2018 August	9/8 Shine Lawyers met with Ministers office
2018 August	OIR develops draft silica and other dust strategy
2018 August -	Silica Benchtop stage 2: OIR formally compels customer lists from suppliers and
Sept	completes audit tool and training.
	Develop industry material – industry safety alert and guide
2018 Sept	WCR see spike in silicosis claims from The Project and WHSQ actions.
2018 Sept	Published web script on Managing respirable crystalline silica in bench top
	fabrication
2018 Sept	Published web script on Respiratory Protective Equipment
2018 Sept	14/9 22 x Inspectors trained in benchtop stage 2 audit tool and related matters,
	Phase 2 of audits ready for immediate commencement.



## Safety alert – Immediate action required to prevent exposure to silica for engineered stone benchtop workers

## Purpose

This alert is to highlight the significant health risks caused by exposure to respirable crystalline silica (RCS) for workers in engineered stone benchtop manufacturing, finishing and installation industries.

Employers in these industries must immediately ensure they are complying with their duties under the *Work Health and Safety Act 2011* to have adequate dust controls in place. Failure to do so will result in enforcement action being taken.

Accumulated exposure to RCS can cause very serious and debilitating health effects, including silicosis. Note that RCS is smaller than dust which can be seen. It is only tiny dust particles which can get deep into the lungs, called the respirable dust, which is of concern.

## Background

Recent compliance audits of engineered stone benchtop manufacturers conducted by Workplace Health and Safety Queensland have found multiple instances of workers being exposed to RCS.

As a result:

- five prohibition notices were issued for activities involving exposure to workers, dry cutting, guarding and plant maintenance issues
- twenty three improvement notices were issued for health monitoring, fit testing of respiratory protective equipment and inadequate dust control issues.

Health monitoring of these workers has returned multiple positive silicosis diagnoses.

All remaining engineered stone bench top fabricators in Queensland will be audited over the coming weeks to ensure adequate dust controls are in place and all other work health and safety obligations are being met.

## Contributing factors

Fabricating, and installing natural and artificial stone bench tops can release high levels of RCS through cutting, grinding and polishing processes, particularly when dry cutting methods are used. Workers can also be exposed to RCS from poor cleaning practices, including dry brooming of dust, the use of compressed air, using non-H class HEPA filtered vacuum cleaners or by allowing the accumulation of dust within the workplace.

The risks are much greater when working with engineered stone as it contains up to 95 per cent crystalline silica while natural stone contains 5-50 per cent crystalline silica.





The workplace exposure standard for RCS will be exceeded if the amount of dust a worker breathes over a full shift contains more RCS than the amount shown here next to the five cent piece. However workers can still suffer adverse health effects from lower levels of exposure.

There are three types of silicosis:

- Acute silicosis is very rare and results from very short-term and very large amounts of exposure to silica (weeks or months).
- Accelerated silicosis results from short term large amounts of inadequately protected exposure to silica (5-10 years exposure). This was once rare, but is becoming more common in engineered stone workers and is the main reason for this alert.
- Chronic silicosis results from long term exposure to low levels of silica (10+ years).

Once the opacities in the lung exceed 1cm in size the disease is referred to as Progressive Massive Fibrosis (PMF).

Health testing has found a higher proportion of accelerated silicosis diagnoses.

## Action required

## Immediately

Persons conducting a business or undertaking must not allow uncontrolled dry cutting, grinding or polishing of artificial / engineered stone bench tops.

## **Engineering controls**

- Water suppression of dust: For example direct water feeds on cutting or grinding equipment, and sheet wetting using consistent and adequate water flows over the stone slab.
- Use local exhaust ventilation (LEV): This includes only using cutting or grinding equipment when the LEV:
  - is part of the equipment design
  - is fitted to the individual equipment where dust is generated
  - includes an H class dust collector or vacuum
  - uses designed hoods or extraction machines.

Cleaning and maintenance of LEV fitted equipment must not expose workers to RCS.

- Wet dust slurry management: Wet spray must be controlled to prevent it becoming airborne. Spray can be controlled by using guards, plastic flaps and brush guarding. Wet waste, contaminated surfaces and contaminated garments must be effectively managed.
- Whole of workplace ventilation: For example extraction systems. However silica dust must not be allowed to transfer from where it is generated.
- Cleaning: Workplaces must have a dedicated regular cleaning regime. Low pressure water, wet wiping or H class vacuums must be used. Dry sweeping methods must not be used. The cleaning must include areas where silica dust can settle, for example storerooms and yards.

## Isolation

- Isolate processes and workers where RCS is generated or handled.
- Provide physical barriers between different work processes and work areas.

## Substitution

- Using materials with no or lower percentage crystalline silica content.
- Using routers and water jet cutters instead of powered hand tools.

## Health monitoring

Persons conducting a business or undertaking must provide health monitoring to workers when there is significant risk to a worker's health because of exposure to a hazardous chemical such as respirable crystalline silica.

Recent air monitoring by Workplace Health and Safety Queensland has shown that health monitoring is required in all Queensland stone bench top fabrication workplaces.

Businesses must give Workplace Health and Safety Queensland a copy of the health monitoring report if:

- the report indicates the worker has contracted a disease, injury or illness (any reduction in lung function is considered an injury); or
- the report recommends you take remedial measures at the workplace.

## **Respiratory protective equipment (RPE)**

Unless a workplace has undertaken air monitoring to demonstrate there is no residual risk from RCS, (which research shows is unlikely), an RPE program that complies with Australian Standard AS 1715 must be implemented.

The program must include:

- provision of suitable, comfortable RPE
- fit testing
- a maintenance and repair regime
- provision of information, training and guidance to workers.

RPE must be reasonably comfortable for the wearer. Consider providing powered air purifying respirators because of the physical demands of the task and potential for a hot and humid work environment.

Workers must wear the RPE whenever they are conducting dust generating processes.

## Information for workers

Workers must be given information, training and instruction with regard to:

- the nature of the work carried out by the worker
- the nature of the risks associated with the work and exposure to RCS
- the control measures implemented at the workplace.

## **Consultation with workers**

Stone bench top manufacturers must consult with their workers about minimising the risks associated with RCS and during the development of the health monitoring program including the selection of the registered medical practitioner for health monitoring.

Consultation must meet the standard of the *Work health and safety consultation, cooperation and coordination Code of Practice 2011.* 

## Further information

For more information on controlling the risk of exposure to respirable crystalline silica or to find out how to supply a health monitoring report call 1300 362 128 or visit <u>worksafe.qld.gov.au.</u>

If you or your workers are concerned about possible exposure to RCS, or to find out how to lodge a workers' compensation claim, call 1300 362 128 or visit <u>worksafe.qld.gov.au</u>.

# Protecting workers from exposure to respirable crystalline silica

Guide to safe bench top fabrication and installation



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## Protecting workers from exposure to respirable crystalline silica - guide to safe bench top fabrication and installation

Research in Australia and overseas has found that workers fabricating bench tops from stone can be exposed to levels of respirable crystalline silica (RCS) which are hazardous to their health. The effective control of occupational exposure can be achieved by the application of a range of known isolation, dust suppression, dust extraction, respiratory protection and housekeeping control options.

This guide outlines how to control exposure to airborne RCS dust in stone bench top fabrication and the health effects of breathing RCS dust.

## Introduction

Stone benchtops are made from engineered stone. The crystalline silica content in stone bench tops can vary widely depending on the type of stone used.

Engineered stone bench tops can contain up to 95 per cent crystalline silica whereas a natural stone such as granite may contain from 20 to 60 per cent.

Crystalline silica commonly occurs in nature as the mineral quartz, and is found in granite, sandstone, quartzite, various other rocks, and sand.

Workers may be exposed to crystalline silica when cutting, grinding, sanding and polishing, or during the installation of stone bench tops. Exposure to very small particles of crystalline silica, called the 'respirable fraction' can lead to a range of respiratory diseases.

Generally workers have a higher risk of exposure to RCS during fabrication rather than installation of the stone benchtop due to less cuts and fabrication taking place.

Where no cutting, grinding, sanding or polishing of the benchtop occurs during installation then no RCS should be released.

Similarly, stone bench tops which are already installed in your home or workplace do not represent a risk to health unless they are cut, ground, sanded or polished.

Exposure to very small particles of crystalline silica (called respirable) can lead to a range of respiratory diseases.

Silicosis is a serious and irreversible lung disease that causes permanent disability and early death. Silica dust particles become trapped in lung tissue, causing inflammation and scarring, and reducing the lungs' ability to take in oxygen. Symptoms of silicosis can include shortness of breath, cough and fatigue. Silicosis can result from exposure to RCS over many years, but very high short-term exposures can cause it to develop rapidly.

Workers exposed to RCS are also at increased risk for chronic obstructive pulmonary disease (COPD), kidney disease and lung cancer.

Workplace Health and Safety Queensland (WHSQ) assessed worker exposure to respirable crystalline silica at ten stone bench top fabrication workplaces using personal exposure monitoring between November 2017 and May 2018. Workers reported previously fabricating stone bench tops without dust controls or adequate respiratory protection. Results of monitoring identified that RCS was not adequately controlled even when wet methods of fabrication were used. It was noted that applying water to rotating tools causes RCS contaminated water mist to be generated.

## The stone bench top industry

Suppliers and distributers supply raw stone slabs, either natural (mostly granite) or engineered stone, to fabrication businesses. Workers cut, grind or polish stone as part of the

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fabrication and installation of bench tops. Stone slabs are cut to size by a variety of methods, from the basic, using a grinder with a stone cutting wheel, through to bridge saws or sophisticated CNC routers or water jet cutters. Sink, stove or tap holes may either be cut at the factory or onsite during installation. Some bench tops require joinery of stone. This is completed by cutting, grinding and gluing smaller pieces of stone to the main bench top. After joinery, the edges are bevelled and bench tops are polished using handheld grinders, polishers, edge or surface polishing machines depending on the customer's requirements. Once finished, bench tops are installed into residential and commercial premises.

## Why is crystalline silica a concern for workers in stone bench top fabrication and installation?

Activities including cutting, grinding and polishing stone generates dust containing respirable crystalline silica.

## Engineered stone contains high amounts of crystalline silica.

Crystalline silica content in stone benchtops can vary widely depending on the type of stone. Engineered stone can contain up to 95 per cent crystalline silica whereas a natural stone such as granite may contain from 20 to 60 per cent. Generally, cutting, grinding, drilling, and polishing stone products with a higher silica content creates larger amounts of very small, crystalline silica dust particles that workers may breathe. Even though silica content is generally lower in natural stone products, workers can be exposed to levels of RCS which are hazardous to their health, if adequate controls are not used.

## Certain tools release more respirable crystalline silica dust into the air.

Workers who operate powered hand tools to cut or grind stone, such as circular saws or grinders, have some of the highest RCS exposures of all fabricators. These tools are often used to complete tasks including cutting holes for sinks and stove tops or during shaping and joining stone. The tasks may occur in a workshop environment or on job sites during installation.

Workers performing other tasks in areas where powered hand tools are used may also be exposed to high levels of dust.

# What can be done to protect workers from exposure to RCS?

The *Work Health and Safety Act 2011* (the Act) places duties on persons conducting a business or undertaking to ensure the health and safety of workers and others.

A combination of controls are required to protect workers' health including engineering, isolation, work practices, personal protective equipment, worker training and consultation.

## Prohibit dry cutting, grinding or polishing

Dry cutting, grinding or polishing stone without water suppression or local exhaust ventilation generates very high levels of dust containing RCS. These levels can exceed the capabilities of half face respiratory protective equipment. For this reason, engineering controls must be implemented.

## Use engineering controls

Properly designed water suppression and/or local exhaust ventilation provide the best protection. A combination of water suppression and local exhaust ventilation has been demonstrated to be more effective at reducing dust than either on their own.

Water suppression for fabrication and installation tasks:

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- Only use tools and machinery that have been specifically designed for use with water attachments.
- Use an adequate number of water feeds directed at the material and/or tool to prevent visible dust during the process.
- Maintain an adequate water pressure to make sure water is reaching the material and/or tool.
- Control water spray from water suppressed tools and machinery using guards, plastic flaps or brush guards.
- Prevent workers from being able to turn water suppression systems down or off during operation.
- Use bridge saws fitted with water attachments to suppress dust when cutting slabs.
- Use water suppressed routers, water jet cutters or bridge saws to complete sink and stovetop cut outs.
- Use hand-held angle grinders fitted with multiple water feeds to deliver water to the cutting disc and point of contact with the stone.
- Use water suppressed wet-edge milling machines or polishing machines.
- Use polishers with a centre water feed to polish or grind stone.

Local exhaust ventilation for fabrication and installation tasks:

- Only use tools and machinery that have been specifically designed for local exhaust ventilation attachments.
- Use hand tools (for example drills, circular saws, grinders) equipped with a shroud and a H class rated vacuum with a high efficiency particulate air (HEPA) filter.
- Install fixed, portable or flexible capturing hoods to capture dust at the point of generation.
- Use a combination of both water suppression and local exhaust ventilation controls, if necessary.

Isolate workers from dust generating processes:

- Provide distance between the work process and the worker (for example operators positioning when using bridge saws or routers)
- Provide distance between workers using powered hand tools and other workers at the workplace.
- Provide physical barriers between different workers and workstations to prevent the water mist moving into other work areas or towards other workers.
- Provide workers with a separate room or area away from the fabrication area for food preparation and dining.

Work practices:

- Use routers or water jet cutters for sink and stovetop cut outs and edge or surface polishing machines for edge polishing.
- Wet slabs before cutting, grinding or polishing to aid with dust suppression.
- Capture excess water generated from water suppressed processes through curbing and channelling.
- Prevent water pooling and drying on surfaces leaving dry dust deposits.
- Wash hands and face thoroughly before eating, drinking or leaving the workplace.
- Launder dusty work clothing at the workplace or use a commercial laundry to avoid taking them home.

Ventilation:

• Use mechanical extraction ventilation to remove contaminated air from the workplace or from a work area.

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- Maintain a flow of air through open doors and windows to naturally dilute contaminated air.
- Move dust generating processes to a ventilated area (near a door or window) or outside to reduce the amount of contaminated air inside the building.

Cleaning and housekeeping:

- Implement daily and through housekeeping and cleaning procedures for water slurry and settled dust.
- Use low pressure water, wet sweeping or a H class rated vacuum cleaner with a HEPA filter to clean floors, walls and other surfaces.
- Regularly clean vehicle track or high use areas and keep them wet during the day.
- Prohibit the use of dry sweeping or compressed air to clean surfaces or clothing.
- Provide hoses for cleaning between tasks.
  - Follow the vacuum manufacturers operator's manuals/instructions for changing dust bags and filters
- Wet slurry should be placed inside a sealed container/bin awaiting disposal

Personal protective equipment:

• Provide workers with gum boots and aprons to prevent contamination of clothing.

Decontamination of workers

- Worker clothes and uniforms must be cleaned frequently to prevent the transfer of silica dust from work areas to break rooms, other parts of the facility, and most importantly, into the home. Industrial vacuum cleaners are an easy to way to remove excess silica debris from clothes and uniforms. Portable industrial vacuum units should be positioned at the exits of silica work areas, so workers can decontaminate their clothes before leaving. Water for hand, face, and hair cleaning should also be provided.
- Alternatively, after each shift workers can change their clothing and worker clothing that has been contaminated with silica dust can be washed separately from other clothing.

## Use respiratory protective equipment

When engineering and work practice controls do not completely limit silica exposures employers must provide workers with respiratory protective equipment (RPE) that must be worn during all tasks associated with risk of exposure to RCS. A respiratory protection program that includes the following elements must also be implemented.

## **Correctly selecting appropriate RPE**

It is essential the right type of filter for the work task is used otherwise the wearer may be unprotected.

The minimum RPE required is a (negative-pressure) half face respirator with a particulate filter (P1 or P2), preferably a tight-fitting re-usable respirator. Where disposable RPE is used it must be disposed when they become difficult to breathe through or at the end of each shift. The cost of replacing disposable respirators daily quickly mounts and it is more cost effective in the long run to use reusuable half face respirators or powered air purifying respirators (PAPR). Strong consideration should be given to providing PAPR because of the physical demands of the task and potential for a hot and humid work environment. Additionally, this improved comfort of PAPR compared to negative pressure respirators make it more likely that the respirator will be worn at all times.

Particulate filters only protect against solid and liquid particles including microorganisms.

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## Medical screening of RPE users

Using a respirator may impose some physical and psychological stress on a worker. Workers should be provided with an initial medical assessment prior to using a respirator. A further medical assessment may be required when there is a change that may affect the worker's ability to wear RPE.

A medical assessment should evaluate both physical and psychological considerations including:

- chronic lung conditions such as emphysema, silicosis or asthma
- circulatory diseases such as heart disease or anaemia
- epileptic seizures
- psychological factors such as claustrophobia or anxiety.

## Fit testing and fit checking

Tight fitting respirators including half face disposable, reusable or full face respirators and PAPR<sup>1</sup> rely on an air tight seal between the wearer's face and the respirator to provide adequate protection. If there is not a good seal, contaminated air will leak into the respirator and the wearer may not get the level of protection that is needed to protect their health.

Fit testing measures the effectiveness of the seal between the respirator and the wearer's face. There are two types of facial fit test:

- Qualitative a pass/fail test that relies on the wearer's ability to taste or smell a test agent. This type of test can only be used on half face respirators.
- Quantitative uses specialised equipment to measure how much air leaks into the respirator. This type can be used on half or full face respirators.

Proven methods of fit testing are found in AS/NZS 1715:2009 Selection, use and maintenance of respiratory protective equipment.

Fit testing must be carried out by a competent person, this could be a consultant, someone in-house or a representative from a RPE manufacturer or supplier.

Fit testing is required:

- each time a new make or model of respirator is issued
- whenever there is a change in the wearer's facial characteristics or features which may affect the facial seal (for example large weight loss or gain)
- on a regular basis upon risk assessment, one or two yearly is reasonable.

Each time a tight-fitting respirator is put on, the wearer should carry out a fit check. A fit check is a quick check to ensure the respirator, which has been fit tested, has been properly positioned on the face and there is a good seal between the respirator and face. Fit checks do not replace the need for a fit test. Follow the manufacturer's instructions on how to carry out a fit check.

## Training workers in the correct use and maintenance of RPE

When issuing RPE, training is required to ensure that workers correctly use and maintain RPE. Training must be provided by a competent person, this could be a consultant, someone in-house or a representative from a RPE manufacturer or supplier.

Training should cover the following topics:

• Why RPE is required

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<sup>&</sup>lt;sup>1</sup> Loose-fitting PAPRs, in which the hood or helmet is designed to form only a partial seal with the wearer's face or hoods which seal loosely around the wearer's neck or shoulders, do not require fit testing

- When RPE is required to be worn
- How RPE works
- The limitations of RPE
- How to correctly put on and take off RPE
- How to conduct a fit check
- How to clean and maintain RPE
- When and how to replace filters
- How and where to store RPE when not in use.

## Ensuring RPE is correctly used

Ongoing training and supervision may be required to ensure that RPE is used correctly by workers. Work health and safety laws require workers to take reasonable care for their own health and safety, comply with any reasonable instruction, and cooperate with any reasonable policy or procure of the employer relating to health or safety. Specifically for RPE, a worker must use or wear RPE in accordance with any information, training or reasonable instruction given.

## Inspecting, maintaining and repairing RPE

RPE needs to be inspected, maintained and repaired to make sure it continues to function properly and protect workers from exposure.

A system of maintenance should include:

- cleaning and disinfection
- inspection
- repair and replacement of components, including filters
- proper storage.

Workers should not wear any damaged, defective or contaminated RPE. Workers also must not intentionally misuse or damage RPE,

## **Correct storage**

Consult the manufacturer's instructions when storing RPE. Each worker should be provided with a dedicated container to store their RPE. Clean, dry RPE should be stored away from dust and out of direct sunlight. Face pieces should be stored so that they are not subject to distortion.

## Keeping records

Records assist in keeping track of the RPE program. Records should include the following:

- Details of issue including date (for reusable only).
- User records including training provided, and medical screening results.
- Fit testing records for each worker including.
- Type of test performed.
- Make, model, style and size of respirator tested.
- Date of the test.
- Result of the test.
- Maintenance records including filter replacement and RPE maintenance schedules.
- RPE program records including procedures for use and audits or evaluations.

## Installing stone bench tops

Workers may be exposed to crystalline silica if cutting, grinding, sanding and polishing during the installation of stone bench tops. Generally workers have a higher risk of exposure to RCS during fabrication rather than installation of the stone benchtop due to less cuts and

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fabrication taking place. Where no cutting, grinding, sanding or polishing of the benchtop occurs during installation then no RCS should be released.

Workers installing stone benchtops that have been completely fabricated in a workshop with no additional cutting or fabrication required on site, should have minimal exposure to RCS exposure compared to workers involved in fabrication.

Working in an environment with control measures in place will reduce the exposure of workers and dust contaminating the site or a customer's home during installation.

The dimensions and locations of cut outs should be obtained prior to installation so they can be completed at the workshop. Alterations during installation can be reduced by accurate measuring, however, when required consider taking the slab back to the workshop if possible.

When cutting or grinding on site:

- work outdoors or in well-ventilated areas
- use water suppression or tools equipped with dust shrouds coupled with a H class vacuum with a HEPA filter
- use a H class HEPA-filtered vacuum to clean up dust as soon as practicable
- wear a half face respirator with a P1 or P2 filter.

## Providing information, training, instruction and supervision

Information, training, instruction and supervision must be provided to workers and other persons at the workplace such as visitors. The information, training and instruction provided must be in a way that it is easily understood.

Information, training and instruction should include the following:

- Information about RCS and the risks to the worker from exposure.
- Control measures implemented, how to use and maintain them correctly.
- Arrangements in place to deal with emergencies, including evacuation procedures.
- The selection, use, maintenance and storage of personal protective equipment (PPE) required to control risks and the limitations of the PPE.
- Information about health monitoring required and the worker's rights and obligations.
- Work practices and procedures to be followed when handling, processing, storing, transporting, cleaning up and disposing of stone slabs and/or dust.

Records of training provided should be kept, documenting who was trained, when and on what.

## Provide health monitoring for workers exposed to RCS

Health monitoring is required for workers in this industry because there can be a significant risk to worker's health if the exposure to RCS is not controlled. All workers must be provided with information about the purpose of health monitoring and a copy of their health monitoring results.

Health monitoring is recommended before a worker starts work to establish a baseline from which changes can be detected. Periodic health monitoring intervals should be decided in consultation with the doctor. Health monitoring is also recommended when a person leaves employment at the workplace.

## How to choose a suitable medical practitioner

Health monitoring must be done or supervised by a doctor with experience in health monitoring. As an example, any doctor who is a fellow of the Australian Faculty of

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Occupational and Environmental Medicine will have the necessary experience. A list of these practitioners can be found on The Royal Australasian College of Physicians website.

• Link: <u>https://www.racp.edu.au/about/racps-structure/australasian-faculty-of-occupational-and-environmental-medicine/find-a-consultant</u>

These lists are not exhaustive and other doctors may have the necessary experience required to conduct health monitoring for RCS.

Workers must be consulted when selecting a doctor and their preference considered if they request a particular doctor.

## **Testing required**

Make sure the doctor selected provides a minimum level of health monitoring that includes:

- demographic, medical and occupational history
- records of personal exposure
- standardised respiratory questionnaire
- standardised respiratory function test, for example, FEV1, FVC and FEV1/FVC
- chest X-ray full size PA view.

Refer to **Appendix A** for an outline of the standard of health monitoring required, which can be provided to the doctor.

## Informing workers about the need for health monitoring

Information about health monitoring must be provided to workers. This information should include a copy of:

- Health monitoring for exposure to hazardous chemical Guide for workers
- <u>Crystalline silica</u> Safe Work Australia
- Health monitoring standard crystalline silica WHSQ (Appendix A).

## Who pays for health monitoring?

The employer must pay the costs of health monitoring if it is required. This includes the costs of the medical services provided and the travel and wage costs of the worker.

## What to tell the doctor

The following information must be supplied to the doctor:

- The name and address of the business.
- The name and date of birth of the worker.
- A description of all of the worker's tasks that relate to crystalline silica.
- How long the worker has been doing the work.

#### The health monitoring report

All reasonable steps must be taken to obtain a health monitoring report from the doctor who carried out the health monitoring. The health monitoring report should only contain information relating to health monitoring for respirable crystalline.

The health monitoring report should include:

- name and date of birth of worker
- the doctor's details (name and registration number)
- business details (name and address)
- the dates each aspect of health monitoring was undertaken
- details of test results that indicate whether or not the worker has been exposed to respirable crystalline silica
- the professional view regarding whether:

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- the worker has contracted a disease, injury or illness as a result of work with crystalline silica
- any remedial measures can be taken by the business
- the worker can continue in his/her current work
- medical counselling is required for the worker.

Refer to Appendix B for a template letter that can be provided to a doctor when requesting a health monitoring report.

The workplace should consider the results, recommendations and advice provided by the doctor, and take appropriate action.

### Informing workers' of their results

Once the doctor has provided a health monitoring report a copy must be provided to the worker as soon as practicable, even if they leave employment at the workplace.

## When to provide a health monitoring report to WHSQ

WHSQ requires a copy of the health monitoring report if:

- the report indicates the worker may have contracted a disease, injury or illness. (Any reduction in lung function is considered an injury.)
- the report recommends remedial measures at the workplace

In either case the report can be supplied by emailing it to <u>AQHHU@oir.qld.gov.au</u>

Please note employers have a duty to report a disease, injury or illness as a result of work with crystalline silica to WorkCover Queensland. You can lodge a notification by calling 1300 362 128.

#### When to provide a health monitoring report to another business

If another business also has a duty to provide health monitoring for the worker, a copy of the health monitoring report for that worker must be provided to that business. This would include if the worker is employed as labour hire.

Consent is not required to provide the report to WHSQ or to another business that also has a duty to provide health monitoring for the worker.

## Keeping records

Health monitoring reports must be kept for 30 years. They must be kept confidential and not released to anyone without the worker's consent.

## **Consulting with workers**

Workers must be consulted about workplace health and safety risks, including those related to RCS.

Worker consultation improves decision-making about health and safety matters and assists in reducing work related injuries and disease. A safe workplace is achieved when everyone involved in the work communicates with each other to identify hazards and risks, talks about health and safety concerns and works together to find solutions.

Effective consultation includes:

- talking about health and safety matters
- listening and raising concerns
- seeking and sharing views and information
- considering what workers say before making decisions.

Workers must be consulted on health and safety matters relating to RCS including when:

managing risks of RCS exposure

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- making changes to processes or procedures that generate RCS
- making changes to controls to protect workers from RCS
- resolving health and safety issues
- monitoring the health of workers exposed to RCS
- monitoring the conditions at the workplace
- providing information and training for workers.

## Further Guidance

## Managing risks

- Chapter 3 Part 3.1 of the Work Health and Safety Regulation 2011
- How to manage work health and safety risks code of practice 2011

## Health monitoring

- Health monitoring standard crystalline silica (WHSQ) (See attachment)
- Health monitoring for exposure to hazardous chemicals guide for persons conducting a business or undertaking (Safe Work Australia)
- Health monitoring for exposure to hazardous chemicals guide for workers (Safe Work Australia)
- Hazardous chemicals requiring health monitoring crystalline silica (Safe Work Australia)
- Letter for practitioners health monitoring report (WHSQ) (See attachment)
- https://www.worksafe.qld.gov.au/injury-prevention-safety/hazardous-chemicals/healthmonitoring

## Consultation

Work health and safety consultation, co-operation and co-ordination code of practice 2011 (WHSQ)

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# Appendix A: WHSQ Health monitoring standard – Crystalline silica

Health monitoring is required under the *Work Health and Safety Regulation 2011* (WHSR) in certain circumstances. Schedule 14 the WHSR identifies the following health monitoring:

- Demographic, medical and occupational history
- Records of personal exposure
- Standardised respiratory questionnaire to be completed
- Standardised respiratory function test, for example, FEV1, FVC and FEV1/FVC
- An ILO Standard Chest X-ray full size PA view.

These terms are broad and further detail is not provided under the safety laws. Workplace Health and Safety Qld has produced the present standard to outline the standard of health monitoring required.

## 1. Demographic, medical & occupational history

Safe Work Australia (SWA) publishes a document titled 'Crystalline Silica Health Monitoring' which is available here

## https://www.safeworkaustralia.gov.au/system/files/documents/1702/crystalline\_silica.pdf

The minimum standard of demographic, medical & occupational history data that should be captured for health monitoring is outlined in pages 6 - 8.

## 2. Records of personal exposure

The health monitoring must detail any personal exposure the worker has had to crystalline silica.

This includes both (1) results of air monitoring that relate to the individual and (2) results of testing for any work groups that the worker was part of.

These records of exposure should be kept with the individual's health monitoring files. A medical practitioner should ensure they request any personal exposure records from the employer and review these as part of the health monitoring process.

## 3. Standardised respiratory questionnaire to be completed

The document 'Crystalline Silica Health Monitoring' identified above includes a questionnaire that provides the minimum standard of questioning needed.

The questionnaire must be completed by a medical practitioner or nurse.

## 4. Standardised respiratory function test, for example, FEV1, FVC and FEV1/FVC

It is a requirement to measure the following:

- FEV1 (forced expiratory volume in one second).
- FVC (forced vital capacity).
- FEV1/FVC.

The following two requirements must also be met:

- Standardised respiratory function tests must be conducted by a person who has successfully completed the Queensland Health Spirometry Training Program or equivalent.
- The Medical Practitioner shall ensure that equipment calibration and maintenance conforms to Queensland Health Guidelines for spirometry testing (ATS/ERS guidelines).

A list of suitably qualified spirometry practices can be found at:

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## https://www.dnrme.qld.gov.au/business/mining/safety/registered-medical-search

### 5. Chest X-ray full size PA view

All CXR (PA) are to be classified by two B readers or by registered radiologists whose names appear on the register of clinical radiologists for coal worker pneumoconiosis screening, maintained by the Royal Australian and New Zealand College of Radiologists.

Where health monitoring is required, the frequency of chest X-rays should be determined by the Medical Practitioner, but it is recommended that a chest X-ray should be conducted at least every 5 years as part of the health monitoring process. However, given the potential shorter latency periods for diagnoses of acute and accelerated silicosis, it is recommended that a chest X-ray be conducted every 1-3 years, in circumstances of higher levels of exposure or where other medical factors indicate it may be required. In assessing the need for more frequent chest X-rays, the records of personal exposure and general exposure history for crystalline silica should be taken into account. The Michigan State University 'Recommended Medical Screening Protocol for Silica Exposed Workers' provides further detail on indicative chest X-ray frequency at Table I. The protocol is available here:

http://www.oem.msu.edu/images/resources/SilicaScreenProtocol.pdf

#### 6. Frequency of health monitoring

Health monitoring should be commenced before starting work involving crystalline silica exposure (baseline). Monitoring should be repeated at least annually and more frequently if advised by the Medical Practitioner and upon termination of employment. As indicated above, frequency of X-Rays is subject to clinical recommendation. The Coal Mine Workers' Health Scheme (CMWHS) Clinical Pathways Guideline is a relevant reference document to guide the Medical Practitioner regarding health monitoring for pneumoconiosis including silicosis. The guideline can be found at

https://www.dnrm.qld.gov.au/\_\_data/assets/pdf\_file/0005/1278563/cmwhs-clinical-pathways-guideline.pdf

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# Appendix B: Template letter requesting health monitoring

## Dear Dr INSERT NAME

Thank you for agreeing to undertake respirable crystalline silica health monitoring for the following workers.

Workers Name	Date of Birth	Description of work with RCS	Period of time worker has been doing work
			09
		0	

I confirm that the minimum health monitoring required has been identified in the attached document – WHSQ Health monitoring standard – crystalline silica (the standard). Upon completion of the health monitoring could you please provide a report for each worker that at a minimum contains the information outlined below.

Please include a confirmation in your report that all requirements of the standard have been met.

## **Health Monitoring Report**

1. Worker details:

Name and date of birth of worker

2. Medical practitioner details:

Your name and registration number

3. Business details:

Business name and address

4. Health monitoring dates:

The dates each aspect of health monitoring was undertaken

5. Test results:

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Details of test results that indicate whether or not the worker has been exposed to respirable crystalline silica

6. Assessment:

Your professional view whether the worker may have contracted a disease, injury or illness as a result of work with crystalline silica.

7. Recommendation:

Your professional view regarding:

- Whether any remedial measures are required to be taken. •
- Whether the worker can continue in his/her current work.
- Whether medical counselling is required for the worker.

If you have any queries about this request, please contact me on INSERT PHONE NUMBER. closure

Yours sincerely

**BUSINESS REPRESENTATIVE BUSINESS NAME BUSINESS ADDRESS** 

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orectosine

## DATE

The Proper Officer ADDRESS 1 ADDRESS 2 ADDRESS 3

Dear Sir or Madam

## **RE:** Protection of workers exposed to respirable crystalline silica

I am writing to alert you to the serious risks to workers' health posed by exposure to respirable crystalline silica (RCS) in engineered stone benchtop manufacturing, finishing and installation industries. The attached safety alert on this matter was issued on 18 September 2018.

In addition, I would like to advise you of a compliance campaign Workplace Health and Safety Queensland (WHSQ) has commenced in this area. Your business has been identified as one that may fabricate materials that are high in silica content.

As a duty holder under the *Work Health and Safety Act 2011* you must ensure the safety of your workers and ensure they wear respiratory protective equipment. You also have further obligations in relation to monitoring the health of your workers through the use of health practitioners.

The enclosed document "Protecting workers from exposure to respirable crystalline silica" outlines the risks posed by RCS and highlights practical measures that can be taken to reduce the risks to health of your workers. In accordance with your obligation to provide information to workers to protect them from risks to their health, you should immediately notify staff about the risks posed by RCS and distribute this enclosed document to all workers at your workplace that may be exposed to RCS. If you are performing dry cutting, you must immediately cease dry stone cutting methods. In addition you are required to implement appropriate controls and health screening of your workers.

Detailed information on your obligations and how they may be discharged are found in this document and in the resources identified under 'Further guidance'. Inspectors from WHSQ will shortly conduct visits at all Queensland workplaces that fabricate artificial stone containing silica and will check compliance with safety laws, including checks relating to:

- prohibitions on dry cutting of stone
- the wearing of respiratory protective equipment
- implementing controls to lower exposure to silica dust
- health monitoring of workers
- consultation with workers
- the provision of relevant information to workers.

I strongly advise you to familiarise yourself with your obligations and do all that you can to ensure that you are meeting the standards required to protect workers.

I have also enclosed a factsheet which provides information for worker's in relation to their workers' compensation rights in Queensland.

If you have further queries after considering the enclosed document and the guidance material within it, please contact Mr Zachary Du Preez, A/Principal Advisor (Occupational Hygiene), WHSQ on 07 3874 7555.

Yours faithfully

Simon Blackwood Work Health Safety Regulator Office of Industrial Relations

orectosure



Minister for Education and Minister for Industrial Relations

18 SEP 2018

1 William Street Brisbane 4000 PO Box 15033 City East Queensland 4002 Australia Telephone +81 7 3719 7110 Email: education@ministerial.qld.gov.au Email: industrialrelations@ministerial.qld.gov.au

The Honourable Kelly O'Dwyer MP Minister for Jobs, Industrial Relations and Women PO Box 6022 House of Representatives Parliament House CANBERRA ACT 2600

Dear Minister

As you will be aware, there is strong evidence of the health risks posed to workers in the engineered stone benchtop manufacturing industry associated with exposure to respirable crystalline silica.

Through the first phase of a compliance campaign conducted by Workplace Health and Safety Queensland (WHSQ), extremely poor work practices including uncontrolled dry cutting, inadequate ventilation and lack of respiratory protective equipment have been uncovered. In the past three weeks, WorkCover Queensland has received 22 workers' compensation claims for silicosis. To date, a total of 26 silicosis claims have been lodged with WorkCover Queensland, including six cases of Pulmonary Massive Fibrosis. In some of these cases the workers had no symptoms, with the disease being detected through health checks. This is truly disturbing.

We are now moving into the second phase of the compliance campaign in which every Queensland engineered stone benchtop manufacturer will be audited by the end of the year. I understand this campaign is an Australian first. Unfortunately, this is a very serious health issue related to the nature of work undertaken in this industry and is not confined to Queensland.

The Palaszczuk Government is urgently pursuing a range of compliance and enforcement measures to ensure that Queensland workers in this industry are safe, and employers in this industry are meeting their obligations under the *Work Health and Safety Act 2011* to control exposure to silica dust and monitor the health of workers.

WHSQ today is publishing an industry safety alert and industry guide which reinforces that dry cutting of engineered stone is prohibited and clearly states the various controls required to protect workers' health, including engineering, isolation, safe work practices, personal protective equipment, worker training and consultation.

In addition, the Palaszczuk Government intends to develop the necessary explicit regulations to prohibit dry cutting of stone and a code of practice prescribing the minimum standard for controlling exposure to silica in the industry. However, as this matter affects all jurisdictions, Queensland considers the development of explicit regulations and a code of practice should be matter considered at the national level through Safe Work Australia as a matter of priority. Further the Palaszczuk Government requests that the Federal Government consider whether the importation of this product should be restricted or controlled on the basis of the significant health risks arising from the extensive use of this product.

Lastly, the Palaszczuk Government strongly supports the reduction of the national exposure standard for crystalline silica, given the seriousness of exposure, the emerging occurrence of silicosis claims and the rapid growth in the engineered stone benchtop industry. In particular, the Palaszczuk Government is of the view that the outcomes of the Consultation Regulatory Impact Statement and the deliberations of Safe Work Australia on the national exposure standard for respirable crystalline silica should be expedited as a matter of priority.

I look forward to discussing this extremely important matter with you as a matter of urgency. To this end, I will contact you shortly. Alternatively, please feel free to contact me on (07)

If your staff require further information or assistance, please contact Ms Sharon Durham, Chief of Staff of my office, on (07)

Yours sincerely

#### GRACE GRACE MP Minister for Education and Minister for Industrial Relations

Ref: 18/183336, F0000004130, R0000044048

CC:The Honourable Dominic Perrottet MP, Treasurer and Minister for Industrial Relations, New South Wales

The Honourable Rob Lucas MP, Treasurer, Member of the Executive Council, South Australia

The Honourable Natalie Hutchins MP, Minister for Industrial Relations, Minister for Aboriginal Affairs, Minister for the Prevention of Family Violence and Minister for Women, Victoria

The Honourable Bill Johnston MLA, Minister for Mines and Petroleum, Minister for Commerce and Industrial Relations, Minister for Electoral Affairs and Minister for Asian Engagement, Western Australia

The Honourable Gerald McCarthy MLA, Minister for Housing and Community Development and Minister for Public Employment, Northern Territory

# Silica exposure health risk for engineered stone benchtop workers

## Your rights to workers' compensation

If you work with engineered stone benchtops you may have had exposure to respirable crystalline silica (RCS). Exposure to RCS can cause very serious and debilitating health effects including silicosis.

If you are concerned about silicosis or you are experiencing respiratory symptoms, visit your doctor to discuss your concerns. You should also talk to your employer about health monitoring at your workplace.

If you have an illness that is from the work that you do, you have the right to compensation. This applies if you are currently working or retired.

If your doctor issues a medical certificate that indicates you may have a work related respiratory disease, you can make a workers' compensation claim.

Staff at WorkCover Queensland will step you through the application process and the information needed to make a decision on your claim. They will assist with making appointments for necessary medical examinations, which may involve a chest x-ray, spirometry and assessment by appropriate medical specialists (e.g. a respiratory physician), with accessing support services (including counselling), and in navigating the claims process.

If your workers' compensation claim is accepted, you may receive compensation for:

- lost wages
- medical, surgical and hospital expenses
- necessary chest x-rays, scans and medical tests
- rehabilitation treatment and equipment services including pulmonary rehabilitation if required
- travel expenses for tests, scans, counselling or rehabilitation appointments.

As part of your compensation, you may also be entitled to:

- tailored return to work assistance that may include vocational assessments, host employment opportunities, training courses and formal job seeking training (e.g. computer skills courses, resume assistance, networking skills)
- lump sum compensation payments for your injury, including additional payments if you are diagnosed with an occupational lung disease caused by the inhalation of respirable dust (e.g. silicosis) or a terminal respiratory disease.

You may also be able to sue your employer and claim damages if you can prove your employer was negligent.

## **Appeals**

If your application for compensation is rejected, you may seek a review of this decision with the Office of Industrial Relations. A further right of appeal is available to the Queensland Industrial Relations Commission.

## Take action

For more information on your workers' compensation rights, or to lodge your claim phone **1300 362 128** or use the online claim form at **worksafe.qld.gov.au**.



WorkCover RTI 190005 -Ωpage 52LAND

## Stonemasons urge Queensland Government to act on silicosis

Greg Stolz, The Courier-Mail July 23, 2018 12:00am Subscriber only

THE Palaszczuk Government has been urged to crack down on the stonemason industry as an increasing number of tradies fall victim to the deadly lung disease silicosis.

Two Gold Coast stonemasons who are battling the disease are among those backing calls for a national ban on dry-cutting practices in stonemasonry workshops.

Leading dust disease litigation lawyer Roger Singh has warned that silica dust from artificial stone used in many kitchen and bathroom benchtops threatens to become the modern-day asbestos.

Mr Singh, Brisbane-based national special counsel for Shine Lawyers, wrote to Queensland Industrial Relations Minister Grace Grace and her interstate counterparts last week calling for a national ban on dry-cutting of fake stone.

"The current method of dry cutting artificial stone creates plumes of dust which, if inhaled over long periods, can potentially lead to silicosis," he said.

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Gold Coast stonemason was diagnosed with silicosi	s last year.

"We know wet cutting, using water to damp down the dust, is much safer but there is no regulation of the industry to enforce this practice.

"We are now speaking with stonemasons who tell us that despite the awareness that's been raised, the dry cutting continues in their workplaces and wet cutting systems, and enforcement of proper face masks, that could prevent disease are not being installed. "We have to learn from the awful legacy of asbestos and take action now to prevent more of our young stonemasons succumbing to what is a horrific disease and, in some instances, a terrible death."

Gold Coast stonemason who both were diagnosed with silicosis last year and became seriously ill, said they were "very angry" at a lack of regulation in the industry.

"Wearing protective gear wasn't policed at any of my workplaces," , 36, said.

"There was so much dust flying around, you could feel the grit on your teeth and taste the dust in your mouth, but I didn't think it was a problem. I had no idea it could make you this sick. "

"I want to make sure no one else has to go through this. It's been absolutely horrendous for me and my family who have had to watch me get sicker and sicker."

Mr Moratti, 49, who has been a stonemason for 30 years, said he collapsed at work one morning and was taken to hospital by ambulance.

"I'm very angry about it," he said. "I think dry cutting should be banned totally. There are lots of products that people use that are dangerous but not if handled properly with the proper protection and gear."

"More needs to be done to protect workers who cut engineered stone."

called for tougher penalties and urged all stonemasons to have lung scans.

Ms Grace said all state stone benchtop manufacturers would be audited by Workplace Health and Safety Queensland by the end of this year.



State Industrial Relations Minister Grace Grace. Picture: AAP/Glenn Hunt "I share Shine Lawyers' concerns about the health of those working in the industry and I am more than happy to hear first-hand their concerns and listen to suggestions they may have to increase protection to workers from this serious work health and safety issue," she said.

Under Queensland's health and safety laws, if it is identified that dry cutting of stone is occurring without proper controls in place, WHSQ will take immediate

enforcement action to prohibit the work. Work cannot recommence until appropriate controls are put in place.

Proper controls include workers using tools fitted with a water attachment to suppress dust and the mandatory use of respiratory protective equipment. Employers are required to supply the appropriate respiratory equipment and tools, along with providing information, training, instruction or supervision necessary to protect workers from risks to their health and safety arising from work carried out.

Last year the Queensland Parliamentary Coal Workers Pneumoconiosis Select Committee examined the effectiveness of the management of the risk of CWP and other lung diseases, including silicosis, arising from the occupational exposure in Queensland.

The Palaszczuk Government responded swiftly to the recommendations made by the Committee, to make sure all workers, regardless of whether they have left the industry or retired, are covered by the workers' compensation system and by establishing appropriate clinical pathways for the diagnosis of lung dust disease, and exposure to dusts in non-mining industries.

As a result of the Committee's findings, WHSQ is developing new minimum standard codes of practice on high risk dust areas, which will include stone top bench manufacturing.

The codes of practice will be developed in consultation with industry stakeholders.

"WHSQ recently undertook 10 pilot audits of stone benchtop manufacturers. The pilot audits identified the high-risk work processes so that they can be targeted state-wide.

"The audits involved extensive air monitoring to determine silica exposure levels to ensure appropriate safety measures are in place to protect workers from exposure to silica dust. Several statutory notices were issued as a result of the audit.

"WHSQ audit campaign has now progressed to the second stage. All Queensland stone bench top manufacturers will be audited by the end of 2018.

#### Attachment 6

#### Overview of silica and potential health effects

- Crystalline silica (quartz) is commonly found in most rocks, sands, and clays and products, including composite stone bench tops.
- Fabricating and installing natural and artificial stone bench tops can release high levels of respirable crystalline silica through cutting, grinding and polishing processes, particularly when dry cutting methods are used.
- Respirable crystalline silica is a class 1 carcinogen and occupational exposure to it can cause debilitating health effects including silicosis and lung cancer.
- Silicosis is one of three types of lung disease that are classified as pneumoconiosis. There are three types of silicosis:
  - Acute Silicosis results from very short-term and very large amounts of exposure to silica (weeks or months).
  - Accelerated Silicosis results from short term and large amounts of exposure to silica (5-10 years exposure).
  - Chronic Silicosis results from long term exposure to low levels of silica (10+ years).
  - Once the opacities in the lung exceed 1 cm the disease is referred to as Progressive Massive Fibrosis (PMF) and is terminal.

## BRIEFING NOTE

FROM	Office of Industrial Relations	V T		
FOR	Minister for Employment and Minister for Multicultural Affa	l Industrial airs	Relations	, Minister for Racing and
SUBJECT	Respirable Crystalline Silica	– Brisban	e Tunnel P	rojects
Contact Officer:	Paul Goldsbrough, Executive Director, Safety, Policy & Workers' Compensation Services, Ph: 07	Record No	3676986	Approval Required
Requested by:	Minister's Office	Reason	Update the	Minister on tunnel workers & silica exposur

## **KEY POINTS**

- 2. Air monitoring conducted by Work Health and Safety Queensland (WHSQ) during construction showed concentrations of silica well above the exposure standard.

Sch 4/3/2

- 3. WHSQ obtained advice and reports from \_\_\_\_\_\_ an expert in subsurface air ventilation, thermal stress and environmental engineering, to assist WHSQ in ensuring health and safety standards were met on \_\_\_\_\_\_.
- 4. WHSQ interviewed a number of tunnel workers and sought expert medical opinion in respect of the potential exposure to risk to the health of these workers. Further investigation conducted between September and November 2011 did not support a breach of the *Work Health and Safety Act 1995* (the 1995 Act) in relation to the potential exposure.
- 5. used similar controls to but also used additional controls to constantly push fresh air through the tunnels and were engaged to undertake personal monitoring of workers for exposure to respirable crystalline silica.

## BACKGROUND AND ISSUES

- 6. The Courier Mail has reported on statements by \_\_\_\_\_\_\_ that workers on Brisbane's Legacy Way and Airport Link tunnel projects should have undergone mandatory silicosis testing as exposure to respirable crystalline silica was probably more dangerous than coal dust. \_\_\_\_\_\_\_\_ statements were made at the parliamentary inquiry into coal workers' pneumoconiosis on 15 March 2017. The article in the Courier Mail is at Attachment 1.
- 7. Exposure to Respirable Crystalline Silica (RCS) occurs in construction related industries, including tunnelling. RCS is an important factor for construction workers. Silicosis is a form of occupational lung disease caused by inhalation of crystalline silica dust and is a type of pneumoconiosis. Like CWP it can be present as a simple form of silicosis or a complex form known as progressive massive fibrosis. It has a long latency period and is not normally observable until a couple of decades after exposure.
- 8. The current workplace exposure standard (WES) for RCS is 0.1 mg/m3, measured by the penetration curve defined by the International Organisation for Standardisation (ISO). This standard has been adopted by Safe Work Australia.



16.	Sch 4/3/3

- 3 -

#### Current Legislative framework

- Currently, the Work Health and Safety Act 2011 and the Work Health and Safety Regulation 2011 (WHS Regulation) govern the management tunnelling work, including standards of exposure to dusts.
- Under the WHS Regulation (section 50), businesses must ensure that air monitoring is conducted to determine the airborne concentration of a substance or mixture at the workplace to which an exposure standard applies. This includes monitoring of respirable dusts, such as RCS.
- 19. Where there is a significant risk to a worker's health because of exposure to crystalline silica, businesses are also required to conduct health monitoring (sections 368 and 370) which includes respiratory function tests.
- 20. Tunnelling is regarded as high risk construction work under part 6 of the WHS Regulation there must be a safe work method statement in place before tunnelling work begins. The Safe Work Australia publication, Guide for Tunnelling Work, provides practical guidance for business.

#### Previous Legislative framework

- 21. Work done on Brisbane tunnel projects prior to 1 January 2012 was regulated by the 1995 Act and the Workplace Health and Safety Regulation 2008 (2008 Regulation).
- 22. Under the 2008 Regulation, businesses were required to arrange health surveillance of a worker if a risk assessment showed they had been exposed to a hazardous substance, including crystalline silica (section 207).
- 23. The Tunnelling Code of Practice 2007 that was in place prior to 1 January 2012 included extensive guidance on identifying and control the risk of exposure to RCS.

## Workers' Compensation Claims

- 24. Since 1 July 2005, there have been 22 accepted workers' compensation claims across a range of industries. Of these, only one claim was in relation to a construction worker. Five claims were lodged from injured workers in manufacturing, seven from mining, and the remaining nine were from various industries.
- 25. The nine claims from various industries were lodged under special policies, meaning the injuries were not attributable to a single employer, and as such could have been from any industry including construction. Insurers have not verified the diagnosis on these claims. Similarly to what has been found with black lung, silicosis claims may be initially lodged by insurers under such things as chronic obstructive pulmonary disease, emphysema, or other respiratory conditions.

#### WHSQ Priority

- 26. Silicosis is a priority for WHSQ under the Priority Disorder Strategy. Construction Inspectors deal with silica exposure as part of their day-to-day activities. Ongoing support is provided to the Inspectorate by hygiene specialists. A workshop, 'Silica: managing the risk', was delivered as part of the Queensland construction work health forum in March 2016. New web content specifically dealing with management of RCS was launched in 2016.
- 27. The government engaged PB to provide a report to support its Work-related disease strategy 2012 2022. The report targeted respirable dust and RCS and their control in the construction and related industries and was provided in 2013. It identified that some workers were still being exposed to significant amounts of crystalline silica.

RTI 180395 - page 61 RTI 190005 - page 61 28. Data indicated that many of the excessive exposure conditions were restricted to some relatively small sectors and included indoor or restricted space operations, including some tunnelling.

## RECOMMENDATION

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29. It is recommended that you note the contents of this brief.

Approved	□ Not approved	
Comments	0	15 MAY 2017
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HON. GRACE GRACE MI Minister for Employment a	nd Industrial Relations	
Vinister for Racing	faire	

	ED/AUT:		OUT:	
Name:		(Initials)	Paul Goldsbrough	(Initials)
Branch/Division:			Executive Director SPWCS, Ph:	



16 Mar 2017 Courier Mail, Brisbane

Author: Jessica Marszalek • Section: General News • Article type : News Item Audience : 144,788 • Page: 1 • Printed Size: 276.00cm<sup>2</sup> • Market: QLD Country: Australia • ASR: AUD 4,847 • Words: 381 • Item ID: 741912443



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Page 1 of 2



WORKERS who dug Brisbane's underground road network may have been exposed to silicone "probably more dangerous" than coal dust, claims a world expert.

MPs were shocked to hear from Dr Robert Cohen at a parliamentary inquiry into coal workers' pneumoconiosis yesterday where he predicted "hundreds or thousands" of Queensland's 30,000 coal miners unknowingly had the potentially fatal disease, rather than the 20 diagnosed.

But the committee was left reeling when he insisted silicosis testing should be done on those who had worked on Brisbane's Legacy Way and Airport Link. **REPORT P3** 

# Workers health fears

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## Expert warns tunnellers put at risk of lung disease

#### <mark>exclusive</mark> Jessica Marszalek

WORKERS who dug Brisbane's underground road network might face the next undiagnosed public health crisis, as a world expert flagged concerns for their wellbeing. MPs were shocked to hear from Dr Robert Cohen at a parliamentary inquiry into coal workers' pneumoconiosis yesterday, where he predicted "hundreds or thousands" of Queensland's 30,000 coal miners unknowingly had the potentially fatal disease, rather than the 20 diagnosed.

But the committee was left reeling when Dr Cohen insist-

ed silicosis testing should be done on workers on Brisbane's

Legacy Way and Airport Link, describing silicone exposure as "probably more dangerous" than coal dust.



16 Mar 2017 Courier Mail, Brisbane

Author: Jessica Marszalek • Section: General News • Article type : News Item Audience : 144,788 • Page: 1 • Printed Size: 276.00cm<sup>2</sup> • Market: QLD Country: Australia • ASR: AUD 4,847 • Words: 381 • Item ID: 741912443

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Page 2 of 2

Chairwoman Jo-Ann Miller said the committee would now discuss whether a separate inquiry should be held into the health of tunnel workers ahead of underground rail lines being

bored for the Cross River Rail. Asked by Ms Miller if tun-

Asked by Ms Miller II tullnel workers should have mandated health checks, the lung disease expert said: "I hope you don't mean ... they're not tested for silicosis." The hearing heard from a CFMEU official that silicone levels in

some tunnels were 10 times higher than allowable levels in coal mines. A spokesman for the Office of Industrial Relations said companies had to conduct standardised respiratory function tests and chest X-rays for people working around airborne

silica. But the hearing heard a raft of criticisms around testing of coal workers, including that those charged with taking and reading X-rays were not sufficiently trained. Dr Cohen criticised the lack of competent monitoring of miners. He said it "beggars the imagination" that authorities insisted for 30 years that black lung did not exist in Queensland when it did in other nations.

## **Briefing Note**

The Honourable Grace Grace MP Minister for Education and Minister for Industrial Relations

## Action required: For Noting

Action required by: ASAP

**Routine update** 

## SUBJECT: WEEKLY UPDATE FOR THE MINISTER FOR INDUSTRIAL RELATIONS AS AT 31 AUGUST 2018

## Summary of key objectives

• To update the Minister on key hot issues in the Office of Industrial Relations (OIR).

## **Background and Key issues**

## Industrial Relations



s.73(2) - irrelevant information



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or		

<u>Silica</u>

- 57. All Queensland stone bench top manufacturers will be audited by WHSQ by the end of 2018.
- 58. To date, ten audits have been conducted in south-east Queensland and as a result of these audits:

- five prohibition notices were issued for activities involving exposure to workers, dry cutting, guarding and plant maintenance issues; and
- 13 improvement notices were issued for health monitoring, fit testing of respiratory protective equipment and inadequate dust control issues.
- 59. WHSQ continues to work with the businesses involved to implement controls as required.
- 60. Phase 2 of the audits are expected to commence in the second week September with OIR currently providing further training to 22 additional inspectors so the audits can be completed by the end of 2018.
- 61. To date, there has been nine claims from stonemasons within the artificial bench top manufacturing industry five of these claims have been accepted and four are currently being determined. Six of these claims were only lodged in August 2018.
- 62. Artificial stone bench tops were introduced into the stone bench top market approximately ten years ago. Prior to this natural stone was the predominant material used for benchtops. Natural stone contains 5-30% crystalline silica/quartz, whereas artificial stone contains up to 96% crystalline silica/quartz. When artificial stone bench tops were introduced, there were no warnings from the manufacturers regarding the levels of crystalline silica/quartz and the dangers involved with cutting this product.
- 63. While pockets of the industry practice wet cutting, there are still times that dry cutting is used. An example of this is during an onsite installation of the benchtop where minor adjustments are required.
- 64. There are three types of silicosis: Acute Silicosis results from very short-term and very large amounts of exposure to silica (weeks or months); Accelerated Silicosis results from short term and large amounts of exposure to silica (5- 10 years exposure); Chronic Silicosis results from long term exposure to low levels of silica (10+ years). Once the opacities in the lung exceed 1cm the disease is referred to as Progressive Massive Fibrosis (PMF) and is terminal.
- 65. Stonemasons don't have a centralised industry body and appear to have multiple employers throughout their careers.
- 66. WHSQ is preparing incident alert on this matter and liaising with the Investigations Unit regarding a comprehensive investigation of the workplaces where people have been diagnosed. In addition it is proposed to incorporate the investigations team into the next round of audits so as any matters can be escalated in real time as we work through the sites.
- 67. In addition to the compliance audits, WHSQ will develop a specific code of practice on silica dust in stone benchtop to ensure minimum standards are enforceable in the industry.

s.73(2) - irrelevant information

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## Recommendation

That the Minister **note** the above information and attachments which provides key hot issues in OIR.

## NOTED

APPROVED/NOT APPROVED ENDORSED/NOTED

SHARON DU Chief of Stat Office of the Minister for Minister for	JRHAM ff e Hon Grace Grace MP Education and Industrial Relations	GRACE GRACE MP Minister for Education and Minister for Industrial Relations
/ Minister's c	/ omments	
		SUI
Action Officer Bruce Awai Office of the Deputy Director- General, OIR	Endorsed by Simon Blackwood DDG OIR	
Sch 4/	3/3 31/08/2018	

## **Briefing Note**

The Honourable Grace Grace MP Minister for Education and Minister for Industrial Relations

## Action required: For Noting

## Action required by: ASAP

**Routine update** 

## SUBJECT: WEEKLY UPDATE FOR THE MINISTER FOR INDUSTRIAL RELATIONS AS AT 28 SEPTEMBER 2018

## Summary of key objectives

• To update the Minister on key issues in the Office of Industrial Relations (OIR) for the week ending 28 September 2018 including the Forward Plan of Industrial Matters (Public Sector and Government Owned Corporations) at **Attachment 1**.

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## **Background and Key issues**

## Industrial Relations

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#### Worker exposure to respirable crystalline silica

Audits and industry impacts

- 38. Under phase 2 of the compliance campaign across stone bench top fabricators in Queensland, 7 audits have been completed. As a result, 4 prohibition notices have been issued for dry cutting and other matters. An additional 21 improvement notices have also been issued in relation to use of respiratory protective equipment, health monitoring and housekeeping.
- 39. OIR has received anecdotal advice that some fabricator businesses have adopted better practices as a result of stage one of the compliance audits these organisations were not audited by WHSQ under phase 1, but improved their practices (eliminated dry cutting) after hearing about the audits through word of mouth.

#### Workers' compensation claims for silicosis

- 40. As at 21 September 2018, 36 claims for workers' compensation from artificial stone workers have been received. Of these claims, 14 have been accepted for silicosis (6 with progressive massive fibrosis) and the remaining 22 are pending a confirmed diagnosis.
- 41. The trigger for 31 of the 36 claims was the compliance auditing undertaken by WHSQ. This number will likely grow as further businesses are audited as part of the ongoing compliance campaign.

## Health screening for artificial stone workers

- 42. WorkCover Queensland, with the assistance of OIR, has drafted a clinical pathway for artificial stone workers to undergo health screening.
- 43. Due to the volume of claims and availability of experienced physicians, the process will vary slightly depending on the degree of severity of a worker's condition assessed from a chest x-ray. Workers with an International Labour Organisation (ILO) grading equal to or greater than 1/1 will be fast-tracked to a respiratory physician. To ensure all workers meet with a doctor as soon as possible, noting that there may be availability constraints on respiratory physicians, workers with a less severe form of the disease (ILO grading less than 1/1) will be initially referred to an occupational physician to discuss a management plan and concerns the worker may have. Workers with a less severe degree of silicosis may still be referred to a respiratory physician if required.
- 44. All workers will undergo exactly the same rigorous testing and all workers with some form of work-related lung disease will have access to workers' compensation when they make a claim.
- 45. In developing and refining the pathway, WorkCover is consulting with relevant respiratory and occupational physicians, and the Thoracic Society of Australia and New Zealand (TSANZ).

#### Consultation with medical professionals regarding silicosis

46.	Represent	atives	from O	R and	Work	<co< th=""><th>ver</th><th>visited</th><th></th><th></th><th></th><th>Sch 4/3/3</th><th></th><th></th></co<>	ver	visited				Sch 4/3/3		
			on 25	Septe	mber	- 20	018					leads the	Q	ueensland
	interstitial	lung	disease	group	and	is	а	leading	expert	on	lung	transplant	ts.	

was able to clarify some technical screening questions and offered his assistance in responding to the volume of claims received to date.

- 47. WorkCover also chaired a meeting with occupational physicians and OIR on 25 September 2018 to ensure physicians were aware of the issues faced, were in agreement regarding the proposed clinical pathway and would support expedient referrals of workers with silicosis.
- 48. A teleconference between OIR, WorkCover and the TSANZ was held on 26 September 2018. TSANZ has stated they are willing help identify physicians who may be able to assist with any availability and capacity constraints that may be encountered. It is intended this will be the first of many meetings with the society who will continue to be consulted as the response to the issue evolves.
- 49. These consultations have assisted in developing a better understanding of the disease and of how these workers can best be supported in their injury.
- 50. Sch 4/3/3 Occupational Physician has expressed some concerns and requested information (exposure data) from several areas across the Office of Industrial Relations. Representatives from the Office of Industrial Relations have offered to meet with at a time convenient for him to discuss the issues he has raised to date.

#### Counselling services

- 51. OIR has confirmed that the existing contract with the grief and trauma counselling service (Benestar) is able to take referrals from workers both directly and indirectly impacted by the recent events surrounding silicosis. All referrals will go through the usual process through the OIR coronial unit. WorkCover will provide details to affected individuals as part of the health screening process and inspectors when undertaking compliance audits.
- 52. In addition, the QBCC has agreed to distribute the silicosis safety alert, guide and workers' compensation factsheet to all QBCC licence holders to assist in raising awareness and educating the industry.
- 53. Further on 24 September 2018 to supports it members, the Cement Concrete and Aggregates Australia published guidance to quarry operators regarding the appropriate assessment and control of respirable crystalline silica (RCS) in Australian quarries.

s.73(2) - irrelevant information



#### Recommendation

That the Minister **note** key issues in the Office of Industrial Relations for the week ending 28 September 2018 including the Forward Plan of Industrial Matters (Public Sector and Government Owned Corporations) at **Attachment 1**.

#### NOTED

## APPROVED/NOT APPROVED ENDORSED/NOTED

SHARON DI Chief of Sta Office of the Minister for Minister for	JRHAM ff e Hon Grace Grace MP Education and Industrial Relations	GRACE GRACE MP Minister for Education and Minister for Industrial Relations							
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Minister's c	omments								
Action Officer Bruce Awai Office of the Deputy Director- General, OIR	Endorsed by Simon Blackwood DDG OIR 28/09/2018								