

**Questions on Notice and Supplementary Questions  
Legislative Council Standing Committee on Law and Justice  
2019 Review into the Dust Diseases scheme**

#	Topic	Question																				
<b>Questions on Notice</b>																						
1.	<b>Breakdown of visits</b>	The Hon. ANTHONY D'ADAM: Are you able to break those down for us? Are you able to provide those statistics in terms of how many of those other visits apply to tunnelling as opposed to onsite installation? Mr DUNPHY: We should be able to break that down. Ms McCOOL: Yes, we can do that.																				
<b>ANSWER</b>	As at 30 June 2019, SafeWork NSW has completed 448 visits in industries other than manufactured stone. SafeWork NSW aims to achieve 9,000 interactions with businesses across all industries by the end of its 2017-22 <i>Hazardous Chemicals and Materials Exposures Baseline Reduction Strategy</i> . The breakdown of the 448 other industries is as follows:																					
<table border="1"> <thead> <tr> <th style="text-align: center;">Industry</th> <th style="text-align: center;">Visits</th> </tr> </thead> <tbody> <tr> <td>Trades (bricklaying, concreting etc)</td> <td style="text-align: center;">325</td> </tr> <tr> <td>Civil construction, including tunnelling (infrastructure specific projects)</td> <td style="text-align: center;">41</td> </tr> <tr> <td>Site preparation/demolition</td> <td style="text-align: center;">40</td> </tr> <tr> <td>Manufacturing building products other than manufactured stone</td> <td style="text-align: center;">17</td> </tr> <tr> <td>Stonemasons (other than manufactured stone)</td> <td style="text-align: center;">12</td> </tr> <tr> <td>Tunnelling (not including infrastructure specific projects)</td> <td style="text-align: center;">4</td> </tr> <tr> <td>Foundries</td> <td style="text-align: center;">4</td> </tr> <tr> <td>Other</td> <td style="text-align: center;">5</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;"><b>448</b></td> </tr> </tbody> </table>			Industry	Visits	Trades (bricklaying, concreting etc)	325	Civil construction, including tunnelling (infrastructure specific projects)	41	Site preparation/demolition	40	Manufacturing building products other than manufactured stone	17	Stonemasons (other than manufactured stone)	12	Tunnelling (not including infrastructure specific projects)	4	Foundries	4	Other	5	<b>Total</b>	<b>448</b>
Industry	Visits																					
Trades (bricklaying, concreting etc)	325																					
Civil construction, including tunnelling (infrastructure specific projects)	41																					
Site preparation/demolition	40																					
Manufacturing building products other than manufactured stone	17																					
Stonemasons (other than manufactured stone)	12																					
Tunnelling (not including infrastructure specific projects)	4																					
Foundries	4																					
Other	5																					
<b>Total</b>	<b>448</b>																					
Fifty notices were issued to these industries (47 improvement and 3 prohibition), with 35 relating to silica (33 improvement and 2 prohibition).																						
In addition to the three manufactured stone-specific industry forums in February 2019, SafeWork NSW has also delivered to other industries:																						
<ul style="list-style-type: none"> <li>• A cross-industry Symposium in May 2019 that had three industry focused workshops – manufactured stone, construction and tunnelling</li> <li>• 36 industry presentations including with the Master Builders Association (MBA), Housing Industry Association (HIA), Tunnelling groups and Local Councils</li> <li>• State-wide roadshow from August to October 2019 with various industry case studies and presenters</li> <li>• Safe Work Month in October 2019 with a focus on silica exposure and falls from heights in construction, which includes tool box talks with various Councils, HIA events, social media campaigns and site visits. <ul style="list-style-type: none"> <li>○ Silica Toolbox Talks to council workers <ul style="list-style-type: none"> <li>▪ Cooma Council 15 October 2019</li> <li>▪ Bombala Council 15 October 2019</li> <li>▪ Bega Coucil 15 &amp; 16 October 2019</li> </ul> </li> </ul> </li> </ul>																						

#	Topic	Question
	<ul style="list-style-type: none"> <li>○ Social media – Dr Karl Kruszelnicki video, link to Silica page (Facebook, Twitter) 4 October 2019</li> <li>○ Event – HIA crystalline silica awareness event, Ballina 10 October 2019</li> <li>○ Event – Silica Roadshow Queanbeyan, 16 October 2019</li> <li>○ Event – HIA crystalline silica awareness event, Coffs Harbour 16 October 2019</li> <li>○ Event – HIA crystalline silica awareness event, Epping 28 October 2019.</li> </ul> <ul style="list-style-type: none"> <li>● Video safety alert on the SafeWork NSW website is also cross-industry focused, as well as the media campaigns and factsheets.</li> </ul>	
2.	<b>Ban on silica</b>	<p>Mr DUNPHY: We are responding, I think, to what was picked up in the task force and that is why we have gone out and have visited, as I said, every site on average two times. That was part of the reason to ensure that we were confident—</p> <p>The CHAIR: We are relatively comfortable with the fixed sites, where it is coming from a container to a fixed site. I think we also have some level of comfort, even with the master builders, that a high-rise being built has a cutting room because there are going to be 50 kitchens installed and they are all cut onsite under controlled measures. We are also getting evidence of people saying this should be treated like asbestos. We do not know how many people today are out there—with kitchen installers putting this dust through residential homes, putting this stuff through the lungs of apprentices, who are in regional towns—because the horse has bolted, to a degree, on a product that has been here for 10 years or 20 years. This is the issue.</p> <p>You need to start where you can—at the top. We have a level of discomfort in these other areas where we think that there is a lot more happening. We will have some people telling us that we should just ban this product in New South Wales. That is, I guess, what we are asking for. Maybe you can take it on notice because we are running out of time.</p>
<b>ANSWER</b>		<p>In terms of a state-wide “ban” of the manufactured stone product in NSW, it is important to note that manufactured stone products are not manufactured in Australia but imported. A ban would require Commonwealth action, potentially by prohibiting importation under the Commonwealth <i>Customs (Prohibited Imports) Regulations 1956</i>.</p> <p>It is also important to note that, although it is a major part of the current problem, workers are exposed to respirable crystalline silica when working with materials other than manufactured stone. High levels of silica are also present in other natural stones and building products to which workers are exposed in various industries, including tunnelling, stonemasonry, foundry moulding, mining and building.</p> <p>Typical crystalline silica levels in different materials are:</p> <ul style="list-style-type: none"> <li>● sand and sandstone: 70-100%</li> <li>● manufactured stone: 93% or higher</li> <li>● granite: 20-45% (typically 30%)</li> <li>● concrete and mortar: 25-70%</li> <li>● calcium-silicate bricks: 50-55%</li> <li>● slate: 20-40%</li> <li>● brick: up to 30%</li> <li>● fibre cement sheets: 10-30%</li> <li>● demolition dust: 3-4%</li> <li>● marble: 2%</li> <li>● limestone: 2%.</li> </ul> <p>The statistics show that the problem is not restricted to manufactured stone. In 2018/19, there were 40 dust diseases claims with 21 relating to manufactured stone. 19 related to other industries. In the three prior financial years (2015/16, 2016/17 and 2017/18) there were 23 claims (approx. 7-8 per year), with only one related to manufactured stone.</p>

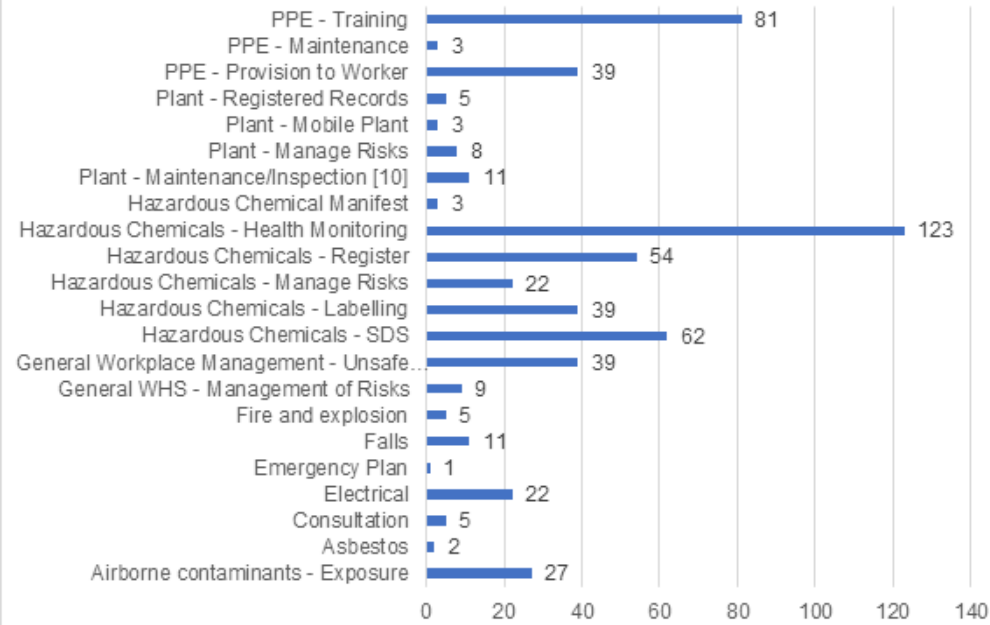
#	Topic	Question
	<p>This would need to be taken into account in any ban based on the silica content of a material.</p> <p>Site observations have also shown that exposures can be controlled with the correct controls. SafeWork NSW also issues a prohibition notice whenever it encounters uncontrolled dry cutting, to ensure workers are working safely with all materials that contain silica.</p> <p>A prohibition notice directs a business to immediately stop work and to change the way in which the work is to be undertaken to prevent illness or injury. A prohibition is a “ban,” meaning the recipient is prohibited from doing that particular activity again and must undertake the work in another (safe) way. Prohibition notices are never lifted, such that the original activity can never lawfully be repeated. Failure to comply can result in penalties of up to \$100,000.</p>	
3.	<b>Notices and HSRs</b>	<p>Ms McCOOL: So 123 notices were issued for health monitoring. Those people have gone and had their health monitoring undertaken. There have been 39 prohibitions on, as I said, the dry cutting. They have been followed up and there is no evidence of them continuing with dry cutting. But also when we are looking at dry cutting we are not just trying to look at it in the Act, we will look if there is any dust forming, piling up in anywhere. We will look if there is a broom there. We will look if all of a sudden a grinder is back there that does not have a water-fed or dust capture. It is essentially following up. Where we have gone back to look at those premises they have complied.</p> <p>The CHAIR: Can I ask you to take on notice and give the Committee a full breakdown of all of your statistics? You have told us how many inspections but will you go into every subset of these numbers that we are talking about, including follow-ups, notices, stop-work permits—</p> <p>Mr DAVID SHOEBRIDGE: In relation to silicosis?</p> <p>The CHAIR: Yes, anything in relation to silicosis—not in relation to forklifts and other things—all the way through to prosecutions and enforceable undertakings, et cetera. Will you take that on notice and provide a full snapshot as it will help tell the story and answer some of our questions.</p> <p>The Hon. ANTHONY D'ADAM: I want to add to that in terms of the data request, will you provide statistics on how many of those 246 workplaces had a HSR?</p> <p>Mr DUNPHY: Yes, sure. I do not know whether we collected that data but we can certainly check to see if we have got that.</p>
<b>ANSWER</b>	<p>As at 30 June 2019:</p> <ul style="list-style-type: none"> <li>• SafeWork NSW has completed 523 manufactured stone visits at the 246 fabrication sites</li> <li>• 617 notices have been issued, of which 574 were improvement notices and 39 were prohibition notices</li> <li>• 498 of the 574 improvement notices relate to silica, and follow-up visits indicate 80 per cent (458) have fully complied with the notice requirements. Follow-up visits are being completed for the remaining 116, noting the majority of these relate to health monitoring (screening) and we are awaiting notification from icare.</li> <li>• 21 of the 39 prohibition notices relate to silica. All prohibition notices have been followed up, with three silica prohibitions yet to be complied with. Two of these relate to the removal and replacement of equipment, with the third relating to revised cleaning procedures/processes. Until the work is completed and the notices are complied, the prohibition (stop-work) notices remain. Further follow-up visits are scheduled.</li> </ul> <p>A breakdown of the reasons for the improvement and prohibition notices are set out below.</p>	

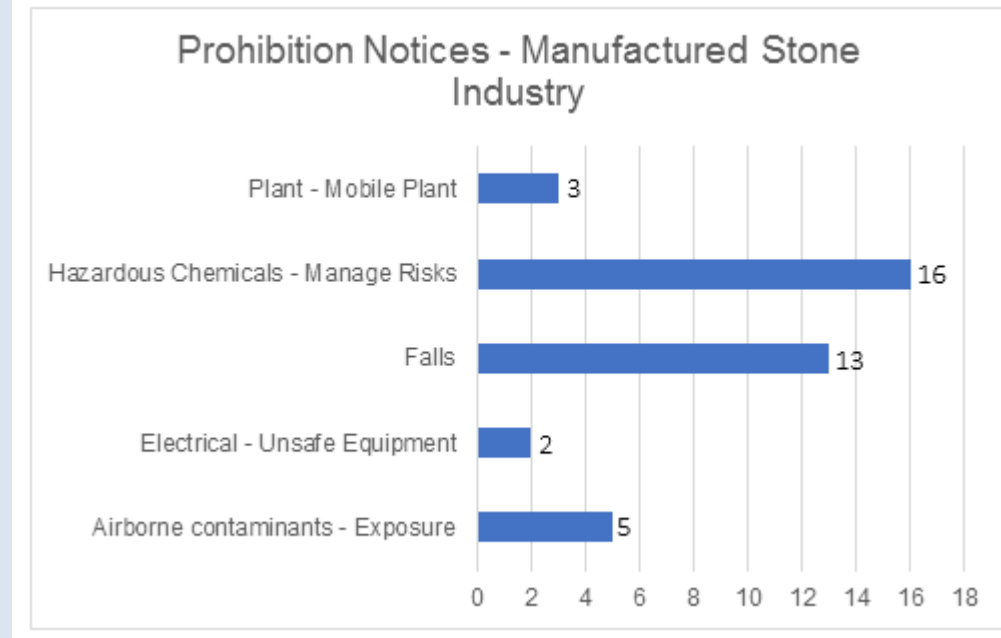
#

Topic

Question

### Improvement Notices - Manufactured Stone Industry





Work health and safety consultation arrangements were verified at 76 per cent of the 246 sites visited, with 22 per cent of this figure not requiring arrangements as they were self-employed. Of those that were verified, 25 per cent had a nominated HSR and 11 per cent had other agreed arrangements including toolbox talks. The remaining 18 per cent had no identified formal arrangements, noting other (informal) arrangements can include regular team meetings, ad hoc meetings and briefing sessions that may not have been detected.

The breakdown of business sizes is as follows:

- 22%: self-employed
- 49%: 0-5 workers
- 16%: 5-10 workers
- 10%: 11-30 workers
- 3%: 30 or more workers.

- 4. Follow-up on visits** The Hon. TREVOR KHAN: Mr Dunphy, I assumed that you had a source of information. What I ask you is, and you may need to take this on notice, of those people, say, in the last two years that you have been notified have got a silicosis exposure and gone off work, how many of them have been interviewed, point one? Point two: What follow-up have you taken with the employers as a result of those examinations? Point three: How many prosecutions have flowed from the disclosures made by the workers of exposure to dust as a result of those? Ms McCOOL: As I said, we have the information from icare, which we served a notice to receive. Those matters are the ones that I said, and I think you referred to one being followed up. The ones that have been followed up with the view as to whether further action will be taken—meaning they are under full investigation—are those matters that we have received the information from icare. We interview the worker, we

#	Topic	Question
---	-------	----------

interview the workplace, we also have a look at the workplace, we have a look at how many employers they work for—it is a full investigation of those matters, and they are the ones that I was saying are under full investigation.  
 The Hon. TREVOR KHAN: I think the notice was 40 that we were told of. So it is not one.  
 Ms McCOOL: Out of those 40, 21 relate to manufactured stone; the other ones do not relate to manufactured stone, but we still follow up on them.  
 The Hon. TREVOR KHAN: I would like to know what you have done in those 21 cases.

**ANSWER**

It is a duty of the person conducting the business or undertaking to notify SafeWork NSW of any adverse health reports relating to working with any chemical (clause 376 WHS Regulation), noting a very low number of cases have been notified by businesses. SafeWork NSW therefore issues notices to icare Dust Diseases Care to also obtain their claim information, noting they do not hold the information of persons diagnosed outside of the icare service. SafeWork NSW continues to issue these notices to icare on regular basis to obtain any new information.

Thirty-three matters regarding silica are currently under further investigation by SafeWork NSW, with 28 of these related to manufactured stone. This involves the collection of evidence (interviews/statements, documents, samples, photographs), as well as issuing any interim notices, before presenting to Legal Branch for prosecution consideration. The statute of limitation is 2 years from the date SafeWork NSW receives the information.

The breakdown of the 40 claims that icare reported for 2018/19 is:

Industry	Count
Manufactured Stone	14*
Manufactured and Natural Stone	7*
Construction	5
Basic Iron & Steel Manufacturing	1
Cement Plant	1
Ceramic Product Manufacturing	1
Furnace Operation	1
Landscape supplier	1
Mineral Exploration Services	1
Mining	1
Non-Metallic Mineral Product Mfg nec	1
Stonemason/Sandstone/Natural Stone	1
Stonemasonry	2
Tunnelling	1
Tunnelling/Natural Stone	2
<b>Grand Total</b>	<b>40</b>

\*These 21/40 relate to manufactured stone.

5.	<b>SafeWork NSW Facebook page</b>	Mr DAVID SHOEBRIDGE: I went to the SafeWork Facebook website to see your online presence because you spoke about it at length in your response. I was distressed at elements of it but what distressed me most was in response to a posting about silicosis. A worker posted, "I have worked on constructions sites since I was 17. I am now 39. I have something like a smoker's cough"—he wrote "caught" but I think he
----	-----------------------------------	---

#	Topic	Question
---	-------	----------

meant to say "cough"—"sometimes blow a blood clot or cough up a clot but don't want to know." The response from SafeWork was, "Hi X, Sorry to hear you're experiencing these symptoms. We recommend seeing your GP for a check-up if you have health concerns." There was no reference to icare, free screenings, a link to any information, no follow-up, just, "We recommend seeing your GP for a check-up". The guy contacted you to tell you he is coughing up blood after working 22 years in the construction industry. We have had so much evidence about what icare can do and about its screenings. How could you not tell this man that? How could you not give him proper guidance?  
 Mr DUNPHY: I am happy to take that on notice and we will follow up on it. I was not aware of that particular post.

**ANSWER** We appreciate this being brought to SafeWork NSW's attention.

SafeWork NSW has reviewed the post and agrees this was not a suitable response. The post has been updated in line with the existing information on the SafeWork NSW website that refers to the screening services available through icare, including the option of icare aligning to a local GP (see below). Additional information has also been provided to the communications staff that manage SafeWork NSW's social media accounts to ensure there is not a repeat occurrence.

**Supplementary Questions**

**6. Notices** Can you please provide the committee with samples of the notices you issue employers when you identify contraventions relating to silica dust exposure? Could you also please outline more information about enforceable undertakings and how they are being used to ensure employers comply with requirements?

**ANSWER** We have attached a sample of notices across a range of issues and date range. These notices have been de-identified and have had the business name, address details and inspector information removed. The narrative below is also provided to assist with understanding the circumstances behind each notice.

1. Prohibition Notice – Uncontrolled Dry Fabrication Work (dry cutting)
2. Improvement Notice – Health Monitoring
3. Improvement Notice – Housekeeping
4. Improvement Notice – Respiratory Fit Testing
5. Improvement Notice – Chemicals Register.

Notice Type	Prohibition Notice – Uncontrolled Dry Fabrication Work
Notice No	61932
Evidence/Reasonable Belief	<p>Site inspection conducted on 11 April 2019. Upon arrival to site, the inspector observed a worker undertaking uncontrolled dry cutting on engineered stone using a cordless handheld grinder. The worker was observed wearing an approved AS/NZS 1716 half face (P2) disposable respirator. The work was performed even though wet fabrication tools were available/accessible at the factory.</p> <p>The inspector approached the worker and signalled for them to stop work. The person conducting the business or undertaking (PCBU) was not at site at the time of the incident. The worker was informed that uncontrolled dry fabrication work was a prohibited work process. The worker was also informed of the risk silica dust presents to health.</p> <p>The PCBU was yet to provide the worker with comprehensive information, training and instruction on the use of respiratory protection, i.e. qualitative/quantitative fit testing. A prohibition notice was issued at site, in addition to improvement notices. The PCBU was immediately informed of the prohibited work process and associated penalties if uncontrolled dry fabrication work continues at the factory or during site installation work. The PCBU was provided with guidance and information on how to comply the prohibition notice, specifically the use of existing wet, pneumatic hand tools.</p>

#	Topic	Question
---	-------	----------

Notice Type	Improvement Notice – Health Monitoring
Notice No	7-346728
Evidence/Reasonable Belief	Site inspection conducted on 30 Jan 2019. Enquiries made with the PCBU revealed that a program of health monitoring had not been established for workers manufacturing stone products from natural/engineered stone. Furthermore, the PCBU had not provided sufficient information, training and instruction to workers on the use of respiratory protection, i.e. qualitative/quantitative fit testing. Workers were therefore assessed as being at significant risk of exposure to crystalline silica as an effective seal could not be guaranteed.

Notice Type	Improvement Notice – Housekeeping
Notice No	7-349327
Evidence/Reasonable Belief	Site inspection conducted on 12 Mar 2019. Visual observations at the factory revealed gross surface dust contamination throughout all areas of the factory, including fabrication areas, toilets, kitchen, office, shelves, benches and stone slabs. Although wet fabrication methods available at the factory, gross surface dust contamination was a result of minimal housekeeping arrangements for the control of silica surface dust contamination.

Notice Type	Improvement Notice – Respiratory Fit Testing
Notice No	7-350489
Evidence/Reasonable Belief	Site inspection conducted on 25 Mar 2019. Visual observations revealed good compliance with approved AS/NZS 1716 (P2) disposable respiratory protection. Some workers were observed as having facial hair, therefore preventing an effective respirator seal. Enquiries with the PCBU revealed that that workers had not been provided with comprehensive information, training and instruction on the use of respiratory protection, i.e. qualitative/quantitative fit testing when performing wet fabrication process on natural/engineered stone.

Notice Type	Improvement Notice – Chemical Register
Notice No	7-356025
Evidence/Reasonable Belief	Site inspection conducted on 24 Jun 2019. When requested, the PCBU could not produce a chemical register and supporting safety data sheets for stone and chemical products used during the manufacture of kitchen benchtops. Chemicals included thinners, glues and adhesives. Stone products were manufactured using natural and engineered stone.

### Enforceable Undertakings

Under the WHS Act, SafeWork NSW, as the regulator, may accept a written undertaking (an enforceable undertaking – EU) given by a person in connection with a matter relating to a contravention or alleged contravention by the person of the Act. An EU cannot be accepted for a contravention or alleged contravention that is a Category 1 offence (i.e. where where a duty holder recklessly endangers a person to risk of death or serious injury). An EU is a legally binding agreement entered into as an alternative to having the matter decided through legal proceedings.

The activities required under an EU are substantial and will include specific initiatives to be undertaken by the person that link to the alleged contravention and the work health and safety duties of the person and deliver positive safety benefits to the workplace as well as benefits which extend to the industry and community. In assessing the merits of a proposed EU, consideration is also given to the person's conduct in respect of mitigation and remedial action regarding both the alleged contravention and any person effected by the alleged contravention. After considering the merits of an EU proposed by a person, SafeWork NSW may accept the EU as an alternative to prosecuting the person for the alleged contravention.



#	Topic	Question
		<p>A person is already required by law to meet their statutory work health and safety obligations. An EU is intended to achieve work health and safety outcomes in the affected workplace and beyond to the relevant industry and our community that strengthens compliance and/or builds sustainable performance. Once accepted, an EU is allocated to a SafeWork NSW inspector for the purpose of verifying that the EU holder has appropriately undertaken the strategies as specified in the accepted EU.</p>
7.	<b>Cutting methods</b>	Can you please provide more information in writing about the exposure levels to silica dust during dry cutting, and outline how they compare with wet cutting?
<b>ANSWER</b>		<p>The United States Occupational Safety and Health Administration (OSHA) has confirmed the effectiveness of wet (as opposed to dry) cutting in reducing exposure to respirable crystalline silica (RCS) for construction work. Further studies also compare dry and wet cutting on engineered stone, but these are not directly comparable as different experimental methods are used. One US experimental study showed that on average, dry cutting produced about 15 times more airborne RCS than wet cutting, although wet cutting levels were still high as testing was done in a small unventilated enclosure<sup>1</sup>. A second US experimental study showed dry cutting produced twice as much airborne respirable dust as a sheet flow wet cutting method<sup>2</sup>.</p> <p>It is important to note that experimental studies do not reflect the actual exposure of workers to RCS when cutting engineered stone, as workers usually undertake a variety of tasks. One US study which evaluated worker exposure to RCS found the daily average exposures of workers performing:</p> <ul style="list-style-type: none"> <li>• 0.083 mg/m<sup>3</sup> for mostly wet operations,</li> <li>• 0.87 mg/m<sup>3</sup> for workers performing entirely dry operations,</li> <li>• 1.0 mg/m<sup>3</sup> for workers predominantly working dry, and</li> <li>• 1.2 mg/m<sup>3</sup> for wet and dry operations extensively.</li> </ul> <p>This limited data shows that workers performing mostly dry work were likely to be exposed to around 10 times as much RCS as workers using mostly wet methods. A recent report<sup>4</sup> of 18 cases of silicosis in engineered stone workers in the USA cited one Californian worker employed during 2004 to 2013 whose tasks included dry cutting and grinding stone edges. Workplace measurements taken in 2009 showed RCS levels up to 2.2 mg/m<sup>3</sup>, 22 times the current Australian Workplace Exposure Standard.</p> <p>A large data set from an audit of 10 fabricating stone workshops in Queensland shows workers mostly involved in wet cutting (i.e. “shapers”), had daily RCS exposures ranging from 0.07 mg/m<sup>3</sup> to 1.03 mg/m<sup>3</sup> (the median result was 0.21 mg/m<sup>3</sup>), although the highest result was likely due to a worker carrying out a small amount of dry work<sup>5</sup>. These exposure levels are likely to be an overestimate as in August 2018 SKC Limited announced that their Respirable Dust Cyclone Sampling device failed to meet the international convention for sampling respirable dust at the flow rate of 2.2 L/min that was recommended by SKC at the time.</p> <hr/> <p><i>References</i></p> <ol style="list-style-type: none"> <li>1. Cooper J, Johnson D, Phillips M, 2015 “Respirable Silica Dust Suppression During Artificial Stone Countertop Cutting” Ann. Occup. Hyg., 2015, Vol. 59, No. 1, 122–126</li> <li>2. Johnson et al. 2017 “Experimental Evaluation of Respirable Dust and Crystalline Silica Controls During Simulated Performance of Stone Countertop Fabrication Tasks With Powered Hand Tools” Annals of Work Exposures and Health, 2017, Vol. 61, No. 6, 711–723</li> <li>3. Phillips M, Johnson D, Johnson A, 2013, “Determinants of Respirable Silica Exposure in Stone Countertop Fabrication: A Preliminary Study” Journal of Occupational and Environmental Hygiene, 10: 368–373</li> <li>4. Centers for Disease Control and Prevention, 2019 “Severe Silicosis in Engineered Stone Fabrication Workers — California, Colorado, Texas, and Washington, 2017–2019” Morbidity and Mortality Weekly Report, September 27, 2019</li> <li>5. Office of Industrial Relations WHS QLD “Phase one Audits of Engineered Stone Benchtop Fabricators in South East Qld”</li> </ol>

