

## National Dust Disease Taskforce – Second phase of consultation - TSANZ

Overall response in this phase of the consultation process:

- Following on the Asbestos experience and its late ban in Australia, TSANZ supports a phased approach to banning engineered stone on the basis that this is a substance of proven toxicity in humans. It is recommended this ban should be implemented in a relatively short time frame while adopting strict regulatory licensing schemes in the interim.
- TSANZ supports the development of a centralised database containing detailed information on constituents of all types of imported engineered stone, with manufacturers required to provide detailed safety information regarding their products and material safety data sheets. This would enable access to all regarding product constituents which is currently unavailable.
  - o A silica content cut-off <49% is not considered to be “safe” and does not consider other potentially hazardous constituents (silicates, resins, metals etc);
  - o Once ES products with more favourable properties are identified, further safety analysis is needed to make comparisons with the risk profiles of alternative materials (e.g. natural stone, corian, timber, laminate) before recommending them as a substitute
- o TSANZ supports the development of substitute products (ideally from within Australia and/or New Zealand)
  - As regulation of the industry does not necessarily mean workplace compliance, TSANZ supports legislation to mandate assessment of crystalline free silica (CFS) levels and other relevant inhaled agents to ensure effective enforcement of regulations and codes of practice
  - TSANZ calls for improved occupational health surveillance (See TSANZ Position Paper, Respiriology 2020)
  - TSANZ calls for research funding to additionally focus on disease prevention (e.g. develop feasible real-time dust monitoring for individual workers; establish the fibrogenic potential of different components; document the health impacts of lowered dust environments; evaluate recommendations for enhanced surveillance, improve awareness and reduce barriers to cultural change within the industry especially in relation to PPE
  - TSANZ recognises that the role of the National Taskforce extends beyond engineered stone associated silicosis to occupational health issues from other sources of silica exposure (e.g concrete, construction), other dust diseases (e.g. CMDLD) and other exposures in the industry (e.g. diesel exhaust)

Responses to specific questions:

Topic area	Consultation question	Input from members
<p><b>Regulatory and governance</b></p>	<p>1. From a regulatory perspective, what should be considered ‘engineered stone’? Please provide the rationale for your recommendation.</p>	<p>See comment above            TSANZ recommends that there should be a ban on all artificial stone working until such time as its safety has been appropriately evaluated and controlled. It is evident that despite regulatory measures, systems for control of crystalline free silica inhalation are insufficient to have provided safety for workers under the existing framework. Despite reductions in regulated dust exposure levels, there is still potential for a dangerous gap between theory and practice.</p>
	<p>2. Various jurisdictions have already banned uncontrolled dry processing of engineered stone. What other practical measures could be introduced to reduce worker exposure to silica dust?</p>	<p>All states need to implement a ban on dry cutting. No silica-containing substance should be cut or drilled without appropriate precautions anywhere in Australia or New Zealand. Dust suppression using other substances e.g. foams or alternative detergents where water is not available should be considered based on their hazard potential (Australia suffers from lack of water in many places). Product substitution should be encouraged.            A central register of all businesses which work with silica and a certification system to ensure that training occurs before use, linked with checks to ensure that appropriate safety measures are actually implemented in the workplace on a daily basis.            Mandatory periodic monitoring of both dust levels (crystalline free silica, silicates and other substances e.g. metals) and worker periodic respiratory surveillance; consider automated systems during work hours.            Certification of businesses on an annual basis after compliance with regulations and satisfactory return of appropriate dust levels and training compliance.</p>

	<p>3. Relevant to dust-related diseases, what mechanisms exist or could be further developed to ensure effective enforcement of regulations and codes of practice?</p>	<p>Legislation is required to mandate CFS assessment before any suspicion of exposure to levels above the regulated limit. Sampling after employer suspicion as currently exists is unsafe. All Australian and NZ industries using CFS and silicates need to routinely sample dusts for CFS and silicates and all industries need to be included in this legislation. Appropriate resources need to be available for such assessments (e.g. tax concessions for training and dust measurements, fines for non-compliance, legal proceedings for contravention of regulations).</p>
	<p>4. Hazard elimination sits at the top of the hierarchy of control measures (see <a href="https://www.safeworkaustralia.gov.au/risk">https://www.safeworkaustralia.gov.au/risk</a> for an example of a hierarchy of control measures). Do you consider a ban (either total or partial) of high silica content engineered stone material, a proportionate and practical response to the emergence of silicosis in the engineered stone benchtop industry in Australia?</p>	<p>Yes. TSANZ believes this is practical and supports a total ban until safety measures have been successfully implemented and shown to be effective—effectively this may be an extensive ban of many products within a short time frame pending clinical and research findings, while regulatory licencing frameworks are in place. TSANZ is aware that all artificial stones are currently imported and suggests that manufacture of such stones should not be allowed in Australia and New Zealand. All stones need to be thoroughly assessed to measure CFS, silicates, metals and other content before use.</p>
	<p>5. The Taskforce is aware some jurisdictions are considering a licensing scheme for engineered stone. Do you consider this a proportionate and practical response in relation to the following:</p> <ol style="list-style-type: none"> <li>a. restricted (under licence) or otherwise prohibited manufacture in Australia?</li> <li>b. restricted (under licence) or otherwise prohibited importation and distribution?</li> <li>c. fabrication and installation performed only under licence?</li> </ol>	<p>TSANZ is aware that licencing schemes are a second best approach and hazard elimination is optimal. TSANZ can only recommend licensing after appropriate hazard controls have been put in place and such potential schemes have been evaluated and been shown to be effective in practice. TSANZ believes that engineered stone should not be manufactured in Australia or New Zealand and prohibited for importation until appropriate hazard controls have been put in place.</p>

	d. licence required after installation modifications or repurposing of installed engineered stone?	Installation should then only be allowed after appropriating licensing for modification and repurposing of engineered stone.
	6. What learnings from the re-emergence of accelerated silicosis as an occupational health and safety risk can be applied to enhance workplace health and safety systems more generally?	The re-emergence of accelerated silicosis has demonstrated dangerous gaps in the health & safety environment in Australia. A centralised, nationalised approach is needed with an ongoing multidisciplinary independent Expert Advisory body and establishment of an agency capable of rapid investigation of occupational disease outbreaks. This approach would allow flexibility and adaptability to the changing industrial and health environment.
	Any other comment on regulatory and governance issues	National harmonisation is required to allow identical regulatory and governance regulation. Silica does not respect state borders, and workers often move between states. Respiratory occupational health needs to transcend state borders Appropriate respiratory surveillance needs to be available life-long for workers and funded appropriately. Potential exposures following dismantling and disposal of the artificial stone is also a consideration
<b>Workplace organisational culture</b>	7. Given the nature of the building and construction industry, and the increase in the number of smaller, often independent businesses and suppliers, what particular strategies and supports are needed to ensure that these businesses are able to provide adequate protection for workers?	This is a challenging issue. Certification before use of silica-containing materials, education before use and regular assessment of dust levels is needed (after the product has been re-introduced and safety issues clarified as above). TSANZ suggest that this is part of a large problem of regulation of the building and construction industry as a whole.
	8. What health and safety strategies can be improved?	Further implementation of education, surveillance, training in PPE (which are currently not performed regularly, if at all). Early referral to appropriately trained health care and occupational health professionals, with links established to enable this

		process and appropriate resourcing (e.g. an item number to cover such referrals).
	9. What return to work support is available or should be considered to assist workers following a diagnosis of silica-associated disease, including for those who are unable to return to the engineered stone industry?	<p>A reduced earnings allowance (plus links to compensation in the meantime) to make up the difference between the former salary and that of a worker who has had to be moved to a less well paid job. This needs to be available from first diagnosis until long term employment in a suitable other occupation has occurred. Patients who become TPD (totally permanently disabled) should receive similar support)</p> <p>This</p> <p>Health care support (medical, nursing, physiotherapy, occupational therapy).</p> <p>Cardiopulmonary rehabilitation</p> <p>Psychological support</p> <p>Social work support</p>
	10. What are examples of good dust exposure workplace monitoring processes? (Where possible please provide evidence to support the effectiveness of these processes).	Please see the occupational hygiene section
	Any other comments on workplace organisational culture	<p>Employers need to understand and appreciate the hazards which workers face from silica and other long latency inspirable dusts, fumes and vapours.</p> <p>Workers need to be encouraged to take respiratory health seriously</p> <p>A blame-free culture is needed to enable early action in cases of excessive dust exposures. Freedom is needed for workers to report unsafe work practices without fear of dismissal or discrimination.</p> <p>Regulators need to respond to active case finding in high risk environments in a timely manner. A high risk environment could potentially be identified by recognising potentially toxin constituents, dust measurements above the exposure standards, and suboptimal work practices. Further research into this field is required</p>

<p><b>Resourcing and capability</b></p>	<p>11. What specific resources (e.g. information, education, other supports etc.) are required, that are not currently available, for small to medium sized businesses, to ensure that owners and staff are fully informed of the availability and correct use of control methods, including by workers from non-English speaking backgrounds?</p>	<p>TSANZ advises that every business should have access to appropriate educational resources and advice. This should include online information, training courses, web-based training, expert advice (e.g. from an occupational hygienist, nurse and/or occupational physician or occupationally trained respiratory physician and radiologist). There are many potential ways in which such resources could be delivered but social media is the obvious choice (e.g, Silicosis Support Group).</p> <p>These should be available in many languages and in a format understandable to those involved (eg. people from a range of backgrounds, Indigenous populations and those living with disability. Appropriate funding with administrative support should be provided to support networks for a broad range of backgrounds (e.g.now wound up Bernie Banton Foundation, Asbestos Diseases Foundation, Mesothelioma Australia.</p> <p>In addition to the biannual TSANZ short course on occupational lung disease, TSANZ/LFA now developing resources for workers and professionals and an occupational component needs to be incorporated nationally into the medical training. Appropriate education about occupational environmental safety should be introduced into both pre and post graduate schooling ).</p>
	<p>12. With a specific focus on dust related diseases, what mechanisms exist that could be used as a basis for providing a coordinated national system with representation across stakeholder disciplines for identifying and communicating emerging issues?</p>	<p>The Royal Australian College of Physicians (RACP) and the RACP Faculty of Occupational and Environmental Medicine (FAOEM) already represent a national coordinated system of medical professionals relevant to the health of these workers, and smaller organisations e.g. TSANZ can also assist. There are also many other national bodies which can work with</p>

		<p>government and Health &amp; Safety agencies (e.g. Doctors for the Environment (DEA), Public Health Association of Australia, SafeWork Australia(SWA), Australian Institute of Health and Welfare (AIHW )etc.</p> <p>TSANZ recommends that a centralised body should be established to enable optimal communication, planning and identification and communication of emerging issues. These systems are already in place in other countries (e.g Health &amp; Safety Executive, UK, Centre for Disease Control USA) and enable better communication strategies and are of proven efficacy</p>
	Any other comments on resourcing and capability	<p>Australia has excellent capability but no current resources to enable these changes. Resources already exist in the health care sector and academic centres, as well as in smaller businesses (e.g. occupational hygiene) and engineering but are inadequate. Provision of adequate resources will save expense in the long run.</p>
<b>Research and development</b>	13. What industry mechanisms could be introduced to ensure workers have appropriate competencies for handling engineered stone or performing processes that generate silica dust?	<p>Training and annual certification as well as regular dust assessments.</p> <p>TAFE courses already exist and allow apprentices to learn early about the hazards of dust controls. Links between these and businesses could be strengthened. Funding for further research aimed to change the industry culture (eg. around use of PPE)</p>
	14. What are the specific challenges related to linking workplace exposure with disease development (at a later date) and how should these be addressed?	<p>The main challenges are the long latency of these diseases, lack of awareness of dust contents, lack of willingness to undergo health surveillance and actually get dust measurements, and lack of resources. These could be overcome but require a national approach.</p> <p>A national database of occupational exposure information and mandatory respiratory surveillance would assist. The development of a job exposure matrix, ideally for all Australia and to include New</p>

		<p>Zealand, but initially for each state, would enable more accurate assessment of individual dust exposures for each worker. This should include crystalline free silica, asbestos, silicates, metals and total respirable dust, and any other relevant toxins.</p> <p>The other problem is the potential for confounding by non-workplace-related disease. This could be overcome by mandating respiratory surveillance prior entering a dust-exposed industry.</p> <p>Entry of overseas workers into dusty trades also needs to be considered, including the potential for transmissible respiratory diseases e.g. tuberculosis. Ideally, no worker should be recruited without a prior clear chest radiograph. This would assist also with community public health.</p>
	<p>15. What are three key pieces of information about dust disease that you would like to see collected at a national level? What are the three key uses of the information collected at a national level?</p>	<ol style="list-style-type: none"> <li>1. Accurate information about numbers of dust-related diseases (all of diseases related to dust exposures, not just silicosis), reported annually and for each state. This should reflect doctor-diagnosed diseases, not compensated cases. Specific details about diseases and other exposures (e.g. tobacco, vaping) to be included in the national registry.</li> <li>2. Periodic monitoring information about workplace dust exposures (including crystalline free silica and silicates, and other dusts e.g. asbestos), including exceedances. These need to be reported centrally and linkable to each individual worker for every industry with dust exposure.</li> <li>3. Numbers of dust-exposed workers nationally and state by state, by age, gender and ethnic background, to provide an accurate denominator. This would also allow trends in incidence to be monitored and identification of high-risk groups.</li> </ol>
	<p>16. What alternative products are currently available which could replace high silica-content engineered stone? How could we drive innovation in relation to products?</p>	<p>There are many alternative products which could be used for kitchen and bathroom bench tops. Australian woods are world renown for their beauty and strength.</p>



		<p>Older products e.g. laminate could be used. As low levels of silica exposure can still lead to lung disease in susceptible individuals, geological and constitute analysis of natural stones is needed prior to recommending alternative silica-containing products Innovation in such products would be certain to follow appropriate control measures and represent an opportunity for development of local Australian made products as well as environmentally friendly products.</p>
	<p>17. The interim advice identified immediate research priorities which has led to a research funding grant opportunity announced by the Medical Research Future Fund and National Health and Medical Research Council. Are there other research priority areas that have not been identified in the interim advice that should be considered, and why? What research areas should be a priority following this first round of research funding?</p>	<ul style="list-style-type: none"> <li>• There is a need for development of point-of-care assessment of dust levels (including CFS) and biological response to dusts, using real-time monitoring of workers using portable, user-friendly devices located within the breathing zone. Such devices are feasible using modern technologies but require significant research investment strategies.</li> <li>• A centralised database needs to be developed which lists all components of each and every engineered stone product used in Australia/New Zealand and their material safety data sheets. to allow rapid access to workers, healthcare professionals, regulators, and others</li> <li>• Long-term prospective cohort studies are needed to evaluate the consequences of low dust exposure levels including the development of malignancy related to silica exposure and of autoimmune diseases.</li> <li>• Prospective actuarial studies are needed, to evaluate the real costs of dust diseases to Australian society (especially ongoing health care costs e.g. with lung transplantation). These studies need to include an assessment of worker vs employer vs societal dollar costs and also quality of life estimates.</li> </ul>

		<ul style="list-style-type: none"> <li>• Further scientific analysis of the fibrogenic potential of different components of artificial stone, and study of the long term health impacts</li> <li>• Qualitative research to improve disease awareness and overcome barriers to changing the attitudes of workers and employers</li> </ul>
	Any other comment on research and development	<p>TSANZ has recently published its Position Paper on optimal surveillance for silica and coal mine dust exposed workers and a copy is attached.</p> <p>TSANZ recommends prospective evaluation of such methods using a national approach. This strategy also aligns with the Lung Foundation and Cancer Council with regard to screening for lung disorders.</p>