

11 November 2020

Department of Health

National Dust Disease Taskforce – Phase 2 Consultation Paper

Submission from Cancer Council Australia, Occupational & Environmental Cancer Committee

Cancer Council Australia is the nation's peak non-government cancer control organisation. Cancer Council's Occupational and Environmental Cancer Committee (the Committee) includes members with national standing in relevant disciplines including epidemiology, molecular biology, occupational health, occupational hygiene, clinical oncology, and public health. Comments from the Committee form the basis of this submission and their contribution is acknowledged. Cancer Council Australia welcomes the opportunity to provide comment on the National Dust Disease Taskforce (the Taskforce) Phase 2 Consultation Paper.

Cancer Council consider the following points necessary to significantly reduce the potential for harm and the incidence of disease resulting from occupational exposures to silica dust.

- **Prevention and the hierarchy of risk control.** Cancer Council believes the guiding principle for the work of the Taskforce should be prevention and that the best way to achieve that is through the application of the hierarchy of control^{*}. This should be combined with a comprehensive systematic approach that focusses on prevention but includes work on improving treatment options and the provision of safer alternative work for those affected by dust disease. We also note there are obligations imposed on all relevant parties via the relevant health and safety Acts, which are based on the principles of elimination and, if elimination is not reasonably practicable[†], minimizing exposure as far as reasonably practicable. Application of the hierarchy of control for occupational dust exposures is both useful and necessary. Therefore, we strongly encourage the Taskforce to use a prevention focus and adopt the hierarchy of control when developing their recommendations.
- **Prohibit dry cutting of manufactured stone.** As per our previous submission, Cancer Council continues to recommend universal adoption of a regulation under all health and safety laws to prohibit dry cutting of manufactured stone, consistent with the Victorian Occupational Health and Safety Amendment (Crystalline Silica) Regulations 2019. This regulation would prohibit the dry cutting of any engineered stone that contains a silica content greater than 80%.
- **National notifiable dust disease system.** The Interim Advice to Minister for Health supported the establishment of a national notifiable dust disease system. The system was proposed to start with accelerated silicosis. Cancer Council supports this approach provided there are clear mechanisms for this to be expanded to apply to all occupational lung disease, including lung cancer deemed to be due to occupational exposure, on a staged basis. This system must be national with data linkages between all jurisdictions.
- **Health-based Workplace Exposure Standard.** Cancer Council is pleased that all jurisdictions, with the exception of Tasmania, have reduced the Workplace Exposure Standard for respirable crystalline silica to 0.05mg/m³. However, we continue to support a further reduction to 0.02mg/m³, which we believe is justified by the available scientific evidence. The technical measurement issues which have been raised as an argument not to

^{*} For example

Elimination – ban on importation and manufacture of engineered stone

Substitution – use of a safer engineered stone product or other

Isolation – for installers - ban of all on site cutting and polishing of engineered stone

[†] Section 17 WHS Act and Section 20.1 OHS Victoria

lower the new standard further must be addressed as a matter of priority. There is evidence that it is achievable to measure to the proposed exposure limit of $0.02\text{mg}/\text{m}^3$, with minimum detectable concentrations found to range from 0.005 to $0.01\text{mg}/\text{m}^3$ over an 8 hour period¹⁻³. An exposure standard of $0.025\text{mg}/\text{m}^3$ was previously identified as the level at which the risk of lung cancer would be reduced to an acceptably low level⁴.

The remainder of our positions are stated below in response to select questions from the Phase 2 Consultation Paper.

REGULATORY AND GOVERNANCE

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?

- Banning of processing of engineered stone. This could be introduced over time, with an initial ban on engineered stone with very high levels of silica and resin.
- Appropriate monitoring of exposures in any work situation where silica exposure at non-trivial levels above background is anticipated.
- Appropriate training of workers in jobs in which silica exposure is known or suspected.
- Increased numbers of inspectors in all jurisdictions for enforcement and education.

4. Hazard elimination sits at the top of the hierarchy of control measures (see <https://www.safeworkaustralia.gov.au/risk> 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?

- Yes. Very high exposures to respirable crystalline silica have been documented when working with engineered stone. This is likely to be particularly problematic in small businesses, where workplace controls are unlikely to be rigorous. Also, there is good evidence that exposure is difficult to control adequately even when other control measures such as wet work are used. The resulting ill health is devastating, irreversible and incurable, leaving a lung transplant as the only option. Finally, there are safer alternatives to engineered stone that can be used.
- In order to ensure that the ban affects engineered stone as a priority, the definition of this stone could be carefully worded to ensure that the most dangerous products are banned as a first step. For example, it could be based on a standard test for the production of respirable silica under controlled laboratory conditions, or it could require the co-presence of resins.
- To the best of our knowledge, engineered stone is not manufactured in Australia. Therefore, an importation ban on engineered stone products could be of economic benefit to Australia as this would increase the use of local alternative products.

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?

- This highlights the problems of:
 - Inadequate levels of rigorous health surveillance in workplaces where health surveillance is necessary
 - Inadequate oversight of WHS by WHS agencies

- Removal of WHS professionals with relevant practical knowledge from WHS agencies in Australia

RESEARCH AND DEVELOPMENT

14. What are the specific challenges related to linking workplace exposure with disease development (at a later date) and how should these be addressed?

- This is too detailed a question to be answered briefly in this response. However, to briefly address this question, the challenges include:
 - A casualised, young and mobile workforce, making tracking of workers difficult
 - Most workplaces don't undertake appropriate dust monitoring
 - Even where dust monitoring is undertaken, in most situations it is very difficult to link dust exposure data to individual worker exposure
 - Few workplaces keep records to show that other dust control measures are checked on a regular basis e.g. ventilation or water flow rates
 - Where dust disease develops, in many situations this will be many years after the relevant exposure. Knowing which exposure is relevant, and obtaining relevant exposure information, is very difficult in such a circumstance.
- It is important to note that it will take decades to see a result, and there is already more than enough evidence available to demonstrate that silica causes silicosis, cancer and several other conditions.

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?

- The focus of the initial research funding was primarily clinical. There was a conspicuous lack of funding for preventative measures, including:
 - studies of the incidence and prevalence of silica-related lung diseases in the workforce (including, but not restricted to, the artificial stone benchtop industry)
 - studies of the effectiveness of various prevention measures such as wet cutting and the maintenance needed
 - studies of how best to ensure that workers are protected when working with silica-containing products
 - studies on how to change buyer behaviour so that it is not considered ethical to buy artificial stone
 - studies on how to improve local products so they are more competitive and useful than the existing dangerous products.

References

¹HSE (Health and Safety Executive) MDHS101/2 2015, *Measurement of Quartz in Respirable Airborne Dust by Infrared Spectroscopy and X-Ray Diffractometry*. Available from <http://www.hse.gov.uk/pubns/mdhs/pdfs/mdhs101.pdf>

²Stacey P, Thorpe A, Echt A. Performance of High Flow Rate Personal Respirable Samplers When Challenged with Mineral Aerosols of Different Particle Size Distributions. *The Annals of Occupational Hygiene*, 2016;60(4):479-92.

³NIOSH (National Institute for Occupational Safety and Health) (2003) *Manual of Analytical Methods (NMAM). Silica, Crystalline, by XRD (filter redeposition) Method 7500*. Issue 4. Available from <https://www.cdc.gov/niosh/docs/2003-154/pdfs/7500.pdf>

⁴American Conference of Governmental Industrial Hygienists, *Silica, Crystalline – alpha-Quartz and Cristobalite: TLV® Chemical Substances*, 2010, ACGIH: Cincinnati, OH.