April 13th, 2018

Hon M Boland
Review Convenor
Safe Work Australia

Re: Feedback for 2018 Review of the model Work Health and Safety (WHS) laws

Dear Hon M Boland,

The review of the model WHS laws present a welcome opportunity to re-look at the way occupational health is regulated, and whether our existing WHS framework is sufficient to protect the health of the Australian workforce.

The construction industry represents a large part of Australia's economy accounting for more than 8% of our GDP. Being our second largest industry, it employs nearly 1.1 million workers, and is rapidly growing with the addition of major infrastructure projects in NSW, VIC and QLD[1].

The feedback provided herein is based on my experience working as an engineer and occupational hygienist in the construction sector and further informed through the completion of a Churchill Fellowship[2] on investigating best practice to prevent illness and disease in tunnel construction workers. It is my belief that we have an opportune time to learn from our past and to improve our current framework to protect the health of the over one million Australians who service this great industry.

Feedback has been provided specifically pertaining to a key question posed in the discussion paper.

Question 9: Are there any remaining, emerging or re-emerging work health and safety hazards or risks that are not effectively covered by the model WHS legislation?

For every Australian worker who loses their life from an injury sustained at work, more than 8 will die from a work related illness or disease each year[3]. Controlling exposures to disease-causing hazards have been identified as an area requiring improvement within the Construction sector[4].

In the context of the construction industry, model WHS legislation does not provide for effective coverage of the key health risks associated with exposure to chronic acting health hazards. Respirable crystalline silica (RCS) is a prime example.

The object of the model WHS Act is to provide for a balanced and nationally consistent framework to secure the health and safety of workers and workplaces. Specific elements in WHS Regulation that relate to the management or prevention of exposure leading to ill health by chronic health hazards such as RCS, include the requirement to ensure that Exposure Standards are not exceeded (R 49), to monitor airborne contaminant levels (R50), and requirements for health monitoring for silica (Schedule 14).

With respect to the tunnel construction industry, WHS Regulation is supported through a Guide for Tunnelling Work[5] in addition to other Codes of Practice that are relevant in construction such as the management of health and safety risks[6], construction work[7], hazardous chemicals[8], and noise[9] among others. The elimination of health risks associated with exposure to health hazards such as RCS, is rarely practicable in a construction environment, therefore leading to the requirement to minimise risks to health so far as is reasonably practicable (SFAIRP). That process involves the

[1] Office of the Chief Economist, Australian Industry Report 2016
[2] Kate Cole, Churchill Fellowship 2016: Investigating best practice to prevent illness and disease in tunnel construction workers
[3] SWA, "Australian Work Health and Safety Strategy 2012-2022," Safe Work Australia, Canberra, ACT, 2012.
[4] SWA, "Work Health & Safety Perceptions Construction Industry," Safe Work Australia, Canberra, ACT, 2015.
[5] SWA, "Guide for Tunnelling Work," Safe Work Australia, Canberra, ACT, 2013.
[6] SWA, " Model Code of Practice How to Manage Work Health and Safety Risks," Safe Work Australia, Canberra, ACT, 2011.
[7] SWA, "Model Code of Practice Construction Work," Safe Work Australia, Canberra, ACT, 2013.
[8] SWA, "Model Code of Practice Managing Risks of Hazardous Chemicals," Safe Work Australia, Canberra, ACT, 2012.
[9] SWA, "Model Code of Practice Managing Noise and Preventing Hearing Loss at Work Code of Practice," Safe Work Australia, Canberra, ACT, 2015.

identification, assessment, control, and review of risks to health on an ongoing basis which relies on a risk based approach to manage health.

Health and safety risk management is subjective in nature, in that social, psychological, and technical factors interact to shape risk perception[10]. That is, not every person, or PCBU assesses the same identified risk, equally. Further, different stakeholders assess risks using their own perception which is influenced by many factors including: how much control one has over the risk; whether it is familiar; whether the consequences are delayed; who bears the consequence; and whether the hazard is encountered as part of work activities[11].

Instances of over-exposure to RCS, are not required to be notified under WHS legislation. As such, they are not subsequently broadcasted to the construction community, and have resulted in a low risk perception and potential bias when assessing the risk to health from exposure to this chronic health hazard.

Performance-based health and safety legislation, rather than prescription-based legislation, can have the benefit of realising improved methods that can be implemented without needing an exemption to Regulations. However, a drawback is that industry may expect the Regulator to offer advice and instructions on a particular matter if it is indeed so important. By contrast, the Regulator turns to industry and expects them to have a greater understanding of the hazards and controls[12].

Although over exposure to RCS in the construction industry remains a key health hazard that is far from being adequately controlled, there are no current mandatory Codes of Practice that specifically relate to its effective control.

Specific gaps that exist in model WHS legislation with respect to this area include:

- No specific competency has been mandated for persons who perform health risk assessments for RCS. Therefore it is common for these to be conducted by persons with limited knowledge of the degree of risk. The flow on effect from this is that if the risk of exceeding the exposure standard (R49) is not appropriately assessed, then exposure monitoring may not occur (R50), it would not be known if exposure standards are exceeded, and if a Significant Risk is not adequately determined, then health monitoring for silica would not routinely occur (Schedule 14)***.***

  It is recommended that a minimum roles and competency be defined for persons who are consulted as part of the health risk assessment process. For example: an occupational hygienist.

- Further to the points above, the production of a health risk assessment enables appropriate time and effort to be applied to identify significant risks to health which can then have appropriate attention paid to design higher-order control measures to eliminate or reduce exposures. If this process is not completed, then limited considerations of “health” in design have been observed, thus resulting in heavy reliance on lower-order controls such as the use of respiratory protective equipment (RPE).

  It is recommended that a standardised framework for health risk assessment, with regard to chronic health risks, is outlined in a Model WHS Code. Such a framework should include detail on the timing, methodology, competence, and outputs as appropriate.

- There is currently no standardised training in occupational health hazards that is provided to persons, to enable an understanding of the linkage between exposure to silica dust and their common sources, and the development of occupational illness and disease. All workers in the construction industry must attend general construction induction training to be eligible for a “White Card,” however, this training does not address chronic acting health hazards.

  It is recommended that the requirements for general construction induction training be updated to include specific elements on prevalent chronic health hazards such as RCS.

- There has been limited enforcement of compliance with the exposure standards compared to the number of exceedances identified as an occupational hygienist working in this sector. This has

[10] L. H. B. N. W. R. K. B. Zhang P, “Work-Health and Safety-Risk Perceptions of Construction-Industry Stakeholders Using Photograph-Based Q Methodology,” American Society of Civil Engineers, Vol 151 Issue 5, 2015.
[11] S. Global, “Communicating and consulting about risk,” Standards Australia, 2009.
[12] P. Standish, “Risk Thinking for Australian Tunnelling,” in 13th Australian Tunnelling Conference, Melbourne, VIC, 4-7 May 2008.

led to the belief of many in this sector that it is not an issue that requires attention. Further to this, the results of Exposure Monitoring are not required to be submitted to the State WHS Regulator. Therefore, the ability to understand where areas of concern may be present is reliant on heavy regulatory intervention to request such data through Section 155 requests.

It is recommended that individual instances of exceeding a workplace exposure standard be required to be reported to the WHS Regulator for appropriate follow up.

- There is no standardised frequency of exposure monitoring prescribed in any Code of Practice. It is therefore possible for a PCBU to collect very few measurements on select "good" days to meet the requirements of legislation or to understand the risk to health, which in turn results in lower exposure monitoring data, which may be artificially under reported.

  It is recommended that a standardised framework for exposure monitoring (e.g. frequency, methods, and standardised reporting requirements) be outlined in a Code of Practice for conducting such exposure monitoring.

- There are no mandated minimum levels of competency for occupational hygienists in legislation. The term "occupational hygienist" is not protected by law, meaning that the term can be used by anyone.

  In the context of the complexities of the construction environment, it is recommended that a Full or Fellow Member of the Australian Institute of Occupational Hygienists (AIOH) with experience in the hazards to be assessed, working under the governance of a Certified Occupational Hygienist (COH)® be required to be the minimum necessary competency requirements in this high risk sector.

- RPE is routinely used as a control measure to reduce exposure to RCS. A specific gap currently exists in that the requirements of AS/NZS 1715 are not currently mandated by a Code of Practice for neither this hazard nor sector.

  It is recommended that a Code of Practice address the requirement of conformance to AS/NZS 1715 where RPE is utilised, which would in turn require workers to be trained, fit tested, undergo medical assessment, and be clean shaven when using respirators that rely on facial fit to be effective for example.

- R 413 requires the PCBU to notify the WHS Regulator if a worker has contracted a disease or illness as a result of carrying out the work that triggered the health monitoring requirement. However, for several reasons, the level of reporting has been observed to be low in comparison with the prevalence of chronic illnesses and diseases. As chronic diseases such as silicosis have long latency periods, they often do not present with symptoms until many years after workplace exposure has occurred. As such, the relationship between the development of lung disease and its association with work may not always be identified, therefore leading to probable under-reporting. This continues to feed the level of knowledge, and hence the perception of the level of risk posed by exposure to silica, resulting in a continued low level of awareness and focus on the issue.

  It is recommended that instances a diagnosis of a deemed disease be required to be notified to the WHS Regulator by a registered medical practitioner, and not by the PCBU.

- At the present time, there is no centralised standardised health surveillance scheme for crystalline silica for construction workers. Rather, each PCBU is individually responsible for managing health monitoring where there is a significant risk to the worker's health. Such programs typically operate independently on each construction project with each PCBU able to utilise the services of a medical health provider of their choice. Due to the project-based nature of construction, the current system does not require, nor enable, the health status of construction workers to be tracked over time. Therefore it is challenging to understand the extent of occupational illness and disease in this sector, and it therefore not possible to analyse trends in disease that may, in turn, inform future policy or specific action.

  It is recommended to establish a centralised health surveillance scheme for construction workers.

In summary, the existing health and safety framework that the construction industry operates within needs improvement to protect the health of these workers. It has limitations, largely due to a low level of awareness and legislation focussed in this area. It would benefit from a standardised health risk assessment framework leading to more robust exposure monitoring and higher take-up of health surveillance; a centralised health surveillance system complimented through disease notification requirements; increased regulatory enforcement; and an increase in training leading to greater knowledge and skills to effectively manage these issues. In addition, the creation of a common framework for the collection of exposure monitoring and disease prevalence data would enable lessons that could be learned and then shared as collective knowledge across the industry.

Regards,

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