

Research Director  
CWP Select Committee  
Parliament House  
Brisbane  
Queensland 4000

7<sup>th</sup> June 2017

## **Submission to the Select Committee Queensland Parliamentary Inquiry into Coal Workers' Pneumoconiosis (CWP)**

**[This submission aligns with the extended terms of reference]**

*A healthy loyalty is not passive and complacent but active and critical* – Harold Laski

Following approximately 30 public hearings and over 40 submissions, it is most appropriate that the Queensland parliamentary inquiry extends its terms of reference to include additional industrial sectors, where there may be a potential risk of exposure to respirable coal dust and crystalline silica. The legal, moral and financial risks are quite significant and to reiterate the loose legal philosophy of the late Justice Thurgood Marshall...*you do what you think is right and let the law catch up.*

Since 1975 the US Department of Labour has paid out almost \$US 45 billion in CWP related compensation payments, which amounts to a lot of hospitals and other public health infrastructure. In Australia, the annual direct costs of workplace injury and disease is approximately \$80 billion or almost 8% of gross domestic product.

Ample evidence from recent public hearings confirms there is a potential risk of exposure to respirable coal dust at facilities other than open cut or underground coal mines. This includes ports, rail loading yards, power stations and coal handling preparation plants. However, a fundamental tenet of occupational hygiene is that the poison is in the dose and initial atmospheric testing is required at these specific locations to evaluate the risk of exposure. This was succinctly summarised by Dr Robert Cohen during a recent CWP public hearing in Brisbane...*if you don't take a temperature you won't find a fever.* Indeed, there are prescribed requirements under the *Queensland Work Health and Safety Regulation 2011*:

- *Part 3.2 Division 7 Managing risk from airborne contaminants*
- *Part 7.1 Division 6 Health monitoring*

Atmospheric testing for coal dust may have been conducted at designated locations under environmental legislative requirements using high volume dust sampling and gravimetric techniques. The associated risk of personal exposure was more than likely considered negligible or tolerable. If health surveillance was conducted on any employees at these locations, records must be maintained for at least 30 years.

Respirable crystalline silica is much more toxic than coal dust. It has been under surveillance for many decades and the morbidity and mortality of large populations of exposed individuals have also been studied over many decades.

Workers' compensation statistics indicate there are very few new cases of silicosis arising from Australian industries. However, these statistics may be unreliable in determining its prevalence due to its prolonged latency period. It is also a potential carcinogen and was traditionally used in abrasive blasting. The following link provides access to a recent paper on respirable crystalline silica from the Australian Institute of Occupational Hygienists:

<https://www.aioh.org.au/documents/item/10>

A potential risk of exposure to respirable crystalline silica is evident across the following industrial sectors.

- Mining and quarrying
- Oil and gas exploration and hydraulic fracturing
- Foundries
- Glass, ceramics, brick and tile manufacturing
- Industrial minerals including production and use of silica, sand and flour
- Construction
- Tunnelling
- Demolition and refurbishment
- Scabbling
- Stonemasonry

A significant proportion of the Australian working population are employed in these industries. The Minerals Council of Australia has reported 127,000 people directly employed in the Mining Industry and 200,000 indirectly employed:

<http://www.minerals.org.au/>.

According to the Department of Industry Tourism and Resources, between 2002 and 2003 there were approximately 730,000 people employed in the construction industry which is 7% of the workforce:

<http://www.industry.gov.au>

There are prescribed requirements under the Queensland Work Health and Safety Regulation 2011 for monitoring and health surveillance:

- *Part 3.2 Division 7 Managing risk from airborne contaminants*
- *Part 7.1 Division 6 Health monitoring*
- *Schedule 14 – Item 7*

Crystalline silica is also categorised as a restricted hazardous chemical for abrasive blasting under the *Queensland Work Health and Safety Regulation 2011 - Schedule 10*.

Exposure to excessive concentrations of respirable coal dust and crystalline silica must target the source. The standard of controls must be proportional to the likely worst consequence and include:

- Increased automation to eliminate or reduce operator exposure
- Mechanical and local extraction ventilation systems
- Dust suppression and mitigation techniques including well-maintained water sprays with chemical additives
- Fixed dust monitoring equipment linked to ventilation system via a variable speed drive
- Installation of warning alarms and automatic shutdown devices

Additional precautions including intrinsically safe or flameproof equipment and installations are required in electrically classified hazardous areas.

These controls can be supplemented by:

- Personal dust monitors to record individual exposure
- Personal protective equipment
- Reliable health surveillance
- Humane rehabilitation protocols

The following links provide access to additional technical reports and guidance material:

<http://www.hse.gov.uk/search/search-results.htm?q=respirable%20crystalline%20silica%20hse#gsc.tab=0&gsc.q=respirable%20crystalline%20silica%20hse&gsc.page=1>

<http://www.regblog.org/2015/05/05/aikawa-ohsa-silica/>

<https://www.worksafe.qld.gov.au/construction/workplace-hazards/silica-exposure-a-serious-risk-for-construction-workers>

[https://www.worksafe.qld.gov.au/\\_data/assets/pdf\\_file/0006/82806/silica\\_crystalline\\_dust.pdf](https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0006/82806/silica_crystalline_dust.pdf)

[https://www.worksafe.qld.gov.au/\\_data/assets/pdf\\_file/0008/83186/silica\\_managing\\_workplace.pdf](https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0008/83186/silica_managing_workplace.pdf)

[https://www.worksafe.qld.gov.au/\\_data/assets/pdf\\_file/0003/82677/tunnel-dust-report.pdf](https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0003/82677/tunnel-dust-report.pdf)

[https://www.worksafe.qld.gov.au/\\_data/assets/pdf\\_file/0016/83050/dust-silica-construction-industries-report.pdf](https://www.worksafe.qld.gov.au/_data/assets/pdf_file/0016/83050/dust-silica-construction-industries-report.pdf)

My attached paper provides a comprehensive overview covering many of the endogenous and exogenous risks, which are significantly impacting on work health and safety performance. It references the recent Queensland parliament Black Lung-White Lies report and details the ineffectiveness of the current SafeWork Australia strategy.



Zero to HRO 06  
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Yours faithfully,

A handwritten signature in black ink, appearing to read 'Bernard Corden'.

Bernard Corden