

# Chapter 3

## Issues raised

### Introduction

3.1 Since its inception the Senate Select Committee on Health has chosen to examine issues as they emerge. In previous reports this has included the committee's inquiry into the proposed privatisation of Australian Hearing (Third Interim Report) and examination of the proposed merger of the National Blood Authority and the Organ and Tissue Authority (First Interim Report).

3.2 While seemingly specific in focus, an examination of the re-emergence of CWP is also important in the wider area of public health. The issue dramatically highlights not only the clear relationship between regulation and public health priorities but also the need for properly funded public health infrastructure which can respond to the re-emergence of a disease long thought eradicated in Australia.

3.3 Chapter 2 reviewed the background to CWP, its recent re-emergence in Queensland coal mines and the mining regulatory landscape in Queensland and NSW. This chapter examines some of those issues in greater detail but in the current context of coal miners' exposure to coal dust, the screening processes, the diagnosis, and the treatment options for coal mine workers. Specifically this chapter examines current:

- coal dust level limits;
- screening process;
- regulatory capture;
- support for workers (current and former); and
- the role of the Commonwealth Government in regulating mine health and safety.

### Coal dust level limits

3.4 As noted in Chapter 2, all witnesses and submitters agreed that exposure to coal dust causes CWP. Mr Percy Verrall, who has worked in Queensland coal mines his entire working life, and who was diagnosed with CWP in 2015 told the committee:

When I was underground on the machines we used to have the dust flying over us, even though we had sprays on the miners. That did not stop the fine dust that was coming through, and that is what has done the damage to me—the fine dust, not the heavy dust you see.<sup>1</sup>

3.5 In their research paper for the University of Wollongong 'Dust controls and monitoring practices on Australian longwalls', Drs Plus, Ren, and Aziz wrote that there are multiple ways in which coal mine workers could be exposed to harmful levels of dust:

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1 Mr Percy Verrall, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016, p. 1.

Fugitive dust on longwalls has always been an issue of concern for production, safety and the health of workers in the underground coal mining industry both in Australia and globally. Longwall personnel can be exposed to harmful respirable and inhalable dust from multiple dust generation sources including, but not limited to: intake entry, belt entry, stageloader/crusher, shearer, and shield advance. With the increase in production created from the advancement in longwall equipment, dust loads have also increased and this has resulted in an increase in exposure levels to personnel.<sup>2</sup>

3.6 As coal dust is an inevitable part of coal mining operations, two key questions arise: firstly, how to most effectively mitigate the levels of coal dust caused by mining operations and, secondly, how to best protect miners from being exposed to hazardous levels of coal dust.

3.7 This section looks at the issues of exposure to coal dust, mitigation of coal dust levels through engineering solutions, and the adequacy of protective equipment for coal mine workers. These issues were all contested by witnesses and submitters, with coal mine workers and the CFMEU arguing that protections were inadequate, and coal mine companies and the Queensland Resources Council maintaining that the industry is doing all that it can and all that is necessary to protect workers from exposure to coal dust.

### ***Exposure to coal dust***

3.8 Managing workers' exposure to coal dust in mining operations is assessed by monitoring the levels of coal dust generated by mining machinery. Drs Plush, Ren, and Aziz explained in their paper that statutory dust measurements for underground mines are made according to standards for inhalable size dust particles<sup>3</sup> and for more hazardous, respirable size dust particles.<sup>4</sup> In their view, measurement of dust levels in mines must therefore address both types of dust particles rigorously and regularly. Evidence before the committee indicated significant anomalies in the various testing

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2 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1417-1418.

3 Which can be inhaled and which may lodge in any part of the respiratory tract. See: Safe Work Australia, 'Guidance on the Interpretation of Workplace Exposure Standards for Airborne Contaminants', April 2012, [http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/680/Guidance Interpretation Workplace Exposure Standards Airborne Contaminants%20.pdf](http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/680/Guidance%20Interpretation%20Workplace%20Exposure%20Standards%20Airborne%20Contaminants%20.pdf)

4 Which are so small they are able to lodge at the alveolar level of lung tissue. See: Safe Work Australia, 'Guidance on the Interpretation of Workplace Exposure Standards for Airborne Contaminants', April 2012, [http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/680/Guidance Interpretation Workplace Exposure Standards Airborne Contaminants%20.pdf](http://www.safeworkaustralia.gov.au/sites/SWA/about/Publications/Documents/680/Guidance%20Interpretation%20Workplace%20Exposure%20Standards%20Airborne%20Contaminants%20.pdf)

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regimes, resulting in unacceptably high levels of coal dust in some Queensland coal mines.<sup>5</sup>

3.9 Discussing dust monitoring, Drs Plush, Ren, and Aziz noted that the current methodology of dust sampling is generally 'carried out with cyclone separation and collection of the sized particles for weighing, generally over the period of a full shift.'<sup>6</sup> They explained that although this method can show a measurement for 'total dust exposure for the period sampled', it does have problems:

...it does not always accurately reflect the source, quantity and timing of respirable dust entering the longwall from different sources, hence presents difficulties in determining the relative effectiveness of the different control technologies in use. Tests based on this methodology also have a number of limitations including limited information from the results and the large number of invalid samples due to over-exposure to dust levels.<sup>7</sup>

3.10 Monitoring of the acceptable dust levels is the critical component of controlling the exposure of workers to hazardous dust levels. However, methods for monitoring these levels vary between jurisdictions. Dr Plush gave evidence that the testing regime is not rigorous:

During my research it became very obvious that there were significant limitations to the current testing regime in terms of quantifiable information in relation to dust production. Performing the statutory testing as per the Australian standards AS2985 only gives results relative to exposure levels. The results do not tell me the source of the coal dust or how much dust is actually in the air...It was these limitations that led me to design a new testing methodology that provided the amount of respirable dust that is produced as a dustload—the milligrams per tonne of coal cut, not of time weighted averages for exposure.<sup>8</sup>

3.11 State legislation, such as the Queensland Coal Mining Safety and Health Regulation 2001, mandate the acceptable coal dust levels and the regimes for dust sampling and compliance arrangements.

3.12 As noted in Chapter 2, dust monitoring in NSW is undertaken by NSW Coal Services as part of its statutory functions. However in Queensland, such monitoring is a responsibility of the mining companies themselves, with the Chief Commissioner

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5 See particularly evidence from Mr Ian Hiscock, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016 and Mr Chris Carter, coal miner, private capacity, *Committee Hansard*, 8 March 2016.

6 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1419.

7 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1419.

8 Dr Brian Plush, Particulate Matter Scientist, University of Wollongong, *Committee Hansard*, 23 March 2016, p. 40.

for Mines Safety and Health (the Commissioner) reporting on company's compliance with Queensland regulation to the Government.<sup>9</sup>

3.13 The CFMEU argued that dust monitoring in Queensland was not being done to appropriate standards. For example Mr Jason Hill, Safety and Health Representative CFMEU Queensland, told the committee that his experiences in Queensland mines supported the findings of the Commissioner's 2014-15 report<sup>10</sup> that dust levels had increased:

I would say that from my recent visits to most of the underground coal mines late last year that it is not a priority of the mines. We had spoken about Grasstree before and that was the dirtiest mine that I have seen. The dust mitigation controls were an absolute disgrace. Before we left the mine we had a robust discussion to say that it was not going to continue until the dust mitigation controls that were on site, which were supposed to be working at the time, were fixed. That did not come easy, it took some robust discussion to get that happening.<sup>11</sup>

3.14 Evidence from the CFMEU was supported by the first-hand experiences of the coal mine workers who spoke to the committee. Mr Chris Carter, a currently employed Queensland coal miner, described his experience of dust monitoring in the Grasstree Coal Mine in Queensland:

CHAIR: ...How long have you been at Grasstree?

Mr Carter: I have been there for 4½ years.

CHAIR: How has the dust monitoring gone on in that period of time, and what do you notice about recent changes?

Mr Carter: I would say that for 3½ years there was little to no dust monitoring done where I worked. In that period of time I may have been asked to wear a dust monitor twice.

CHAIR: In the space of four years?

Mr Carter: In four years, yes. After that date there was more dust monitoring, but the dust monitoring was generally done on maintenance days. We were told that they were able to work out the amounts of dust due to time-weighted averages.

CHAIR: Let me be clear about this: we just heard from the New South Wales monitoring board, and they said that personal monitors are worn—I am pretty sure they said it was every worker; 'every panel, every shift' is

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9 Department of Natural Resources and Mines, Queensland Government, *Commissioner for Mine Safety and Health: Functions*, website, last reviewed 20 May 2015, [www.business.qld.gov.au/industry/mining/safety-health/mining-safety-health/legislation-standards-guidelines/commissioner-functions](http://www.business.qld.gov.au/industry/mining/safety-health/mining-safety-health/legislation-standards-guidelines/commissioner-functions)

10 Commissioner for Mine Safety and Health, *Queensland Mines Inspectorate Annual Performance Report 2014-15*, p. 3.

11 Mr Jason Hill, Safety and Health Representative, CFMEU Queensland, *Committee Hansard*, 7 March 2016, p. 44.

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what I wrote down... I stand to be corrected, but you are saying that not only do you not wear a monitor that can be measured in real time on every shift; the days on which you wear a monitor—or you have worn a monitor—are days in which maintenance is occurring, which means that there is no coal being mined at that point in time?

Mr Carter: That is correct. The frequency that I would have worn a dust monitor, even in the last six months, would only be once a month on a Thursday when I would be on afternoon shifts—and that Thursday would be a maintenance day.

CHAIR: That is very specific information. You are asked to wear your personal dust monitoring device on a Thursday afternoon when maintenance is scheduled?

Mr Carter: Yes. But not every Thursday maintenance shift—only on selected ones. But I only work a Thursday maintenance shift on afternoon shift once a month.

CHAIR: I am finding it a little hard to digest that information. I am not normally a cynic, Mr Carter, but it would seem to me that the dust monitoring is being constructed to happen at a time when it is least likely to show up dust.

Mr Carter: That is correct.<sup>12</sup>

3.15 Of significant concern to the committee is a response from the Queensland DNRM regarding its knowledge of and access to coal dust monitoring data. The answer demonstrates that there is no regulatory requirement for coal companies to report excessive dust levels to the regulator. Furthermore the DNRM does not keep a log of excessive dust exposures. The response also shows that, following the identification of an exceedance of dust levels, mining companies only need to provide a minimum of three months of exposure data to demonstrate 'sustained compliance'. The response states:

Under current legislation, there is no requirement to report exposure exceedances for dust or any contaminant to the chief inspector or any inspector. The obligation is on the mining company to monitor the dust, record the exposure and investigate exceedances and introduce controls.

There is no such excess dust “log” kept. The department conducted a review of all coal dust exposure data from 2012 to October 2014 and then again from October 2014 to August 2015. From this review, those mines with systemic dust issues were identified and directives were issued for these mines to control the exposures and provide monitoring records to the department to demonstrate compliance.

Once mines have demonstrated compliance they are required to continue to submit coal dust exposure data for at least another three months to demonstrate sustained compliance.<sup>13</sup>

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12 Mr Chris Carter, coal miner, private capacity, *Committee Hansard*, 8 March 2016, p. 24.

3.16 The Mines Inspectorate in the DNRM responds to evidence of non-compliance by mining companies (following inspections or investigations) by issuing mines Directives. In the course of the committee's hearings, the committee sought evidence regarding how many Directives had been issued and copies of the Directives.

3.17 The DNRM advised that it had issued 23 Directives relevant to coal dust monitoring and mitigation and provided these Directives to the committee on the condition of confidentiality.

3.18 The committee has agreed not to publish the information regarding the Directives, however the committee takes this opportunity to comment generally on the evidence it has received. In doing so the committee notes that the DNRM redacted information which would have identified the particular mines in each instance and in all but one case there is no information as to the circumstances giving rise to the issuing of those Directives.

3.19 The committee is very concerned by the contents of the Directives, particularly where mines appear to have taken considerable time to rectify dust level exceedances and/or implement dust controls. Of the 23 Directives provided to the committee:

- only nine Directives complied with the due date. The due dates were exceeded in the remaining 14 Directives;
- in those 14 Directives, the non-compliance periods ranged between 12 days to 12 months;
- five of the Directives relating to dust control and dust prevention were issued after the first reported cases of CWP, being 13 May 2015;
- one Directive issued to a mine which had no respirable dust monitoring took 12 days to comply with the requirement to implement a program.

3.20 The committee is very concerned about the fact that the Directives identify significant and on-going problems with dust prevention and/or dust control in Queensland mines.

3.21 The committee is also very concerned that these mines have not responded to the Directives in a timely manner. The committee notes that other than prosecution under subsection 174(2) of the *Coal Mining Safety and Health Act 1999* (QLD), there appears to be no other statutory consequence for not complying with a Directive within a 'reasonable time'. Given that prosecution for non-compliance within a 'reasonable time' is likely to be rare event and a difficult case to prosecute, there is little incentive for on-time compliance by mining companies. Interim measures such as formal warning by the DNRM, followed by naming in a public register of non-compliance or a similar sliding scale model of non-compliance sanctions would

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be greater incentive for mining companies to comply with the Directives. The committee makes a recommendation in this regard in Chapter 4.

3.22 The committee also questions the means by which the DNRM is made aware of matters giving rise to the issuing of the Directives, such as how are matters reported to the DNRM, and are regular and irregular inspections undertaken?

3.23 There appears to be considerable variance in the language used to describe similar 'subjects', for example some Directives identify the subject as 'dust control', some as 'dust suppression', and others as 'dust prevention', and there is scant information on the face of the Directives to indicate the circumstances giving rise to its issuance. The committee considers that these deficiencies could lead to difficulties in auditing compliance or in collating data from the Directives as part of a future tracking, review or auditing process.

3.24 Vale Australia, a mining company which has coal mines in Queensland where cases of CWP have been reported, only addressed the issue of dust monitoring in the context of the steps it that had been undertaken since the third quarter of 2015, that is, since the first reported case of CWP in May 2015. Those steps were described as follows:

Dust mitigation

- Continued improvement of dust mitigation controls, including:
  - Application of additional engineering solutions
  - System improvements
  - Operational modifications

Dust monitoring

- Enhanced our dust monitoring regime, including:
  - Increased frequency of monitoring, over and above statutory requirements
  - Addition of real time monitoring
  - Incorporated an analysis of operator positioning<sup>14</sup>

3.25 The Queensland Resources Council's submission omitted any reference to dust monitoring. Anglo American Coal and BHP Billiton Ltd (BHP) were both invited to make submissions, however both declined to do so. BHP also declined to attend the committee's hearings.

3.26 During one of the committee's hearings, mining company representatives and the Queensland Resources Council provided limited details about dust monitoring. In fact, the Chief Executive Officer of the Queensland Resources Council, Mr Michael Roche, was unaware that the regulated level of dust exposure for Queensland miners was higher than that of NSW or the United States:

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14 Vale Australia, *Submission 200*, p. 3.

Senator CAMERON: Yes, but the level of dust is higher. The level of dust that is allowable is higher in Queensland, isn't it?

Mr Roche: Yes, and I must admit that came as a surprise to me. I am not sure of the background to that...<sup>15</sup>

3.27 Disturbingly, there was very limited awareness of the work of Drs Plush, Ren, and Aziz amongst mining company representatives and the Queensland Resources Council. However, Drs Plush, Ren, and Aziz noted at the time their research paper was published, that there had been some scrutiny of dust monitoring methodology in Australia:

The reason for this scrutiny is that there has been a significant increase in Coal Workers' Pneumoconiosis (CWP) in the USA over the last few years despite recorded conformance to exposure level legislation, and the opinion by the underground coal mining industry in Australia that the current testing regime tells them very little about the actual operational production of dust on the longwall face in relation to where it is produced or how to prevent this dust entering the atmosphere.<sup>16</sup>

3.28 The CFMEU stated that the implementation of stronger compliance regimes and the monitoring of dust levels by an independent body are essential to solving the problem of miners' exposure to hazardous levels of coal dust in Queensland.<sup>17</sup>

3.29 The committee considers that the concerns about the methodology of dust monitoring, as voiced by Drs Plush, Ren, and Aziz, coupled with the propensity for mining companies to put self-interest above safety in the Queensland self-regulated model, has created the conditions in which CWP has returned to Australian coal mines.

3.30 Drs Plush, Ren, and Aziz argued for the establishment of an industry 'database of best practice dust suppression techniques used by longwalls for the industry to peruse and use along with the management of sampling data':

Currently the industry invests a lot of money in the sampling conducted by the regulatory regime but receive very little useful information on how to mitigate airborne contaminants. With the volume of data collected the industry should have a fairly accurate picture and understanding of the underground longwall work environment to help refine installed controls and measure their dust knockdown efficiency, but currently only receive single sample information with details recorded for a 5 sample batch not individual samples.

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15 Mr Michael Roche, Chief Executive Officer, Queensland Resources Council, *Committee Hansard*, 7 March 2016, p. 57.

16 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1425.

17 CFMEU, *Submission 199*, p. 17.

3.31 While the industry itself provided little evidence to the committee about current dust monitoring methodologies, Drs Plush, Ren, and Aziz in their research found that:

The industry feels it would be better to have information on individual pieces of plant & equipment, tasks and activities and on the practises of crews or individuals. The industry would also like to see a review which will document standards of approach in the areas of dust control efficiencies to capture a definitive benchmark which will allow for a more scientific approach to the management of airborne contaminants.<sup>18</sup>

3.32 In light of these views Drs Plush, Ren, and Aziz suggested a review of:

...competency requirements for persons undertaking dust sampling be undertaken and that a review of the occupational exposure limit is covered and suggested legislative shift adjustment criteria is recommended specifically in the industry to better reflect the continual changes in the mining environment.<sup>19</sup>

3.33 The committee endorses the suggestions made by Drs Plush, Ren, and Aziz, and provides a recommendation to this end in Chapter 4.

### ***Coal dust mitigation***

3.34 As noted in Chapter 2, a number of engineering solutions are used to reduce the amounts of coal dust in mining operations. Drs Plush, Ren, and Aziz explained in their research paper that engineering controls, such as machines called scrubbers and mine ventilation, are often accompanied by administrative controls, which are implemented in mines through improved work practices:

In general, two dust control approaches, namely administrative controls and engineering controls, are adopted for dust management by the industry. Administrative controls or 'work practices' are designed to minimise the exposure of individual workers by positioning them in the work area in such a way as to limit the time they are exposed to a particular dust source. Work practices can be effective in protecting some individuals only if followed properly and consistently, and if the environmental exposure remains constant and predictable. Unfortunately, this is not the characteristic of longwall mining in general.<sup>20</sup>

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18 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1426.

19 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1426.

20 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1420.



An example of dust control in a longwall mine.<sup>21</sup>

3.35 The CFMEU noted that:

The now (in)famous 2014-15 report of the Queensland Mines Inspectorate highlighted the increase of dust levels in mines, including that a large number of underground coal mines were routinely exceeding regulated dust levels.

The report showed that a majority of underground mines were exceeding regulated dust levels. It also showed an overall trend of increasing dust levels.<sup>22</sup>

3.36 Drs Plush, Ren, and Aziz concluded that in terms of longwall mining, the ability to use advances in engineering to improve coal production have led to increased production of coal dust:

Extensive studies have shown that high dust exposures on longwall mining operations are mainly due to:

- Inadequate air volume and velocity;
- Insufficient water quantity and pressure;

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21 Image sourced from [mining-technology.com](http://www.mining-technology.com/features/featuremining-safely-innovative-technologies-to-prevent-mining-accidents-4207131/featuremining-safely-innovative-technologies-to-prevent-mining-accidents-4207131-2.html), *Mining safely – innovative technologies to prevent mining accidents*, website: <http://www.mining-technology.com/features/featuremining-safely-innovative-technologies-to-prevent-mining-accidents-4207131/featuremining-safely-innovative-technologies-to-prevent-mining-accidents-4207131-2.html>

22 CFMEU, *Submission 199*, p. 17.

- Poorly designed external water spray systems;
- Lack of dust control at the stage loader and crusher;
- Dust generated during support movement; and
- Cutting sequences that position face workers downwind of the cutting machine.<sup>23</sup>

3.37 Coal miners like Mr Ian Hiscock and Mr Chris Carter, agreed that the issues identified by Drs Plush, Ren, and Aziz were the causes of increased dust levels.<sup>24</sup> Mr Carter, a currently employed Queensland coal miner, speaking to the committee in a private capacity, described the drive towards increased production as a major cause of dust creation:

A lot of the problem with dust has come with production expectations as to how fast you can cut coal. The faster you cut, the more dust there is. It is a proven fact. When we slow production down we also limit the amount of dust. That is not just at the working face; that goes all the way out of the mines. I know that recently at Grasstree [coal mine] the shearer rates were slowed after black lung became evident to everyone. The comments made from the longwall face to the stockpile were that the dust was greatly reduced.<sup>25</sup>



Longwall mining at the Vale Australia Carborough Downs Mine, Queensland.<sup>26</sup>

3.38 Drs Plush, Ren, and Aziz concluded that this in turn, requires more effective dust control measures:

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- 23 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1420.
- 24 Mr Ian Hiscock, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016; Mr Chris Carter, coal miner, private capacity, *Committee Hansard*, 8 March 2016.
- 25 Mr Chris Carter, coal miner, private capacity, *Committee Hansard*, 8 March 2016, p. 23.
- 26 Image sourced from Vale Australia, Factsheet Carborough Downs Mine, p. 2.

Australian longwall mining experience has indicated that the efficiency of some of the existing dust control methods reduces significantly in thick coal seams and under high production environments. As the current trend in the industry is to substantially increase the face production levels and to extract more thick coal seams, there is an urgent need for detailed investigation of various dust control options and development of appropriate dust management strategies.<sup>27</sup>

3.39 However, Mr Carter agreed with the assessment of Drs Plush, Ren, and Aziz:

A lot of the problem with dust has come with production expectations as to how fast you can cut coal. The faster you cut, the more dust there is. It is a proven fact. When we slow production down we also limit the amount of dust. That is not just at the working face; that goes all the way out of the mines...<sup>28</sup>

3.40 The committee heard that there are alternatives to the Queensland system. For example, the NSW regulatory model places an emphasis on prevention of coal dust reaching the coal mine worker:

Senator LAZARUS: ...Do you have a recommendation on what Queensland mines should be doing to get the same levels as New South Wales?

Ms Flemming: I believe that they should adopt a similar model to our collaborative model...With dust, it is about mitigating the risks. In any hierarchy of control, the first thing you do is try to limit that risk—which, in this case, is dust exposure—and then you work down to other controls, such as wearing an appropriate dust mask.<sup>29</sup>

3.41 Other individual dust controls, such as dust masks, are discussed in the following sections.

#### ***Adequacy of and access to protective equipment***

3.42 Dust masks and other devices such as respirators for protecting workers from breathing in respirable coal dust comprise part of what is known in occupational health and safety terms as PPE. The Queensland Resources Council wrote in its submission that:

Personal protective equipment [PPE] issued to miners extends their safety in dusty environments. Its availability and use is clearly stated in the Queensland regulation. Provision, training and use of PPE is a requirement and obligation...PPE [issued by Queensland Resource Council members] used will have been approved for use, the point being that workers are simply not exposed to dust through cheap throw-away basic dust masks of

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27 Dr Ting X Ren, Dr Brian Plush and Dr Najdat I. Aziz, 'Dust controls and monitoring practices on Australian longwalls', *Procedia Engineering*, vol. 26, p. 1418.

28 Mr Chris Carter, coal mine worker, private capacity, *Committee Hansard*, 8 March 2016, p. 23.

29 Ms Lucy Flemming, CEO, NSW Coal Services, *Committee Hansard*, 8 March 2016, p. 13.

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the types which would be familiar to most people from non-industrial environments.<sup>30</sup>

3.43 Former miners Mr Hiscock and Mr Verrall both described how paper masks had been used in the mines during their working lifetime. Mr Hiscock told the committee:

The long wall is 300 metres long, so you put on one of those paper dust masks and, at the end of that shear, you have to get another one, because they are chock-a-block full. They do have an Airstream helmet but, like at Carborough Downs, they changed the lighting system, Northern Light, and they were not compatible with the Airstream helmets. Therefore we only had the dust masks that we could use. Like Percy said, they constantly block up. When you are moving 120-kilogram flight baths, when you have maintenance issues, you try breathing and doing manual labour with these paper dust masks. It is not right.<sup>31</sup>

3.44 Mr Stoddart, another Queensland miner who has been diagnosed with CWP, told the committee:

Mr Stoddart: ...The most important part, I think, is the coaldust. It is just there all the time. I love the coalmining. It can be done safely, I am sure. When I first started in the mines there was no such thing as even a dust mask, let alone a helmet. Back in the early 1980s they brought in an air helmet, but it was big and clumsy. While I was cutting coal, I could wear it. It had filters at the back that sucked in all the dust and blew fresh air over your face. But back in those days there were no automatic things and we used to put up props. If you put a prop up on your shoulder, the helmet got knocked off, so I would take two helmets down. I would cut my coal, take my space helmet off and put my normal helmet on. But that fine dust was always in the air. The other masks they gave us—you would put them on but they were hard to breathe through.

CHAIR: These are the little white paper masks?

Mr Stoddart: Yes, they were little white paper masks. They are hot and they are hard to breathe through, so what I used to do, and what a lot of the miners do, is when we were cutting we would have them on but then as we got up to the bolt we would just pull them down so we could breathe a lot more normally.<sup>32</sup>

3.45 Mr Carter told the committee that while he has a full face 'electronic positive pressure mask' it has to be removed if he need to drink or communicate.<sup>33</sup> Mr Carter noted that it is not practical to keep the mask on for the entirety of a 12 hour shift:

Mr Carter: We work 11 hours, 10 hours, nine hours and 12 hours. Between different crews it is different hours.

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30 Queensland Resources Council, *Submission 195*, p. 4.

31 Mr Ian Hiscock, retired mine worker, private capacity, *Committee Hansard*, 7 March, p. 2.

32 Mr Keith Stoddart, coal miner, private capacity, *Committee Hansard*, 8 March 2016, p. 2.

33 Mr Chris Carter, coal miner, private capacity, *Committee Hansard*, 8 March 2016, p. 33.

CHAIR: For the whole of one shift would you keep your mask on all of the time?

Mr Carter: No.

CHAIR: Why not?

Mr Carter: It is just not practical to do it.

CHAIR: Can you explain to me what is practical and what is actually happening there?

Mr Carter: What would be practical would be to lower the dust levels and not require the last form of defence to keep people safe.<sup>34</sup>

3.46 Mr Hiscock raised concerns that access to PPE could be difficult for workers to access. He explained his experiences with vending machines dispensing masks:

Mr Hiscock: For the coalmines I was working at it has only changed in the last couple of months since all this came about. They have totally changed the way we cut coal, but we were allowed to do it for such a long time. The coalmines now are talking about the PPE mask. They have put vending machines in the mines. With the longwall you would use 10 masks a shift if you cut 10 shears. You have to go to a vending machine now. Rather than taking boxes of masks down and putting them on the main gate with dust masks and all the rest of it, you have to go to a vending machine on the surface at the start of a shift and get out X amount of masks. They are not taken down, because the companies—I cannot speak for the companies and why they have done it.

So then we get told how much all this is costing. When I went from being a permanent to a contractor, if the contractors did not fill up because they had to supply their own, no more did the mines supply it for the contractors. If they had not topped up to there, we would have to go to the permanents and say, 'Look, can you get us some PPE out?' because we could not get PPE out of the machines.

Senator CAMERON: Given that there is this push for ever-increased productivity, do you think corners are being cut for increased productivity?

Mr Hiscock: Of course they are. We had it rammed it down our throats that they were only getting X amount of dollars per tonne and we were not beating the budgets, so therefore it was a case of 'Cut as fast as you can, fellows.' That was just the way it was.<sup>35</sup>

### ***Committee view***

3.47 The committee notes that the submissions received from the Queensland Resources Council and Vale Australia barely mentioned dust monitoring and mitigation. Any issues mentioned, as in Vale Australia's submission, were in the context of work being undertaken since the recent reporting of cases of CWP in late

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34 Mr Chris Carter, coal miner, private capacity, *Committee Hansard*, 8 March 2016, pp. 34-35.

35 Mr Ian Hiscock, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016, p. 6.

2015.<sup>36</sup> As noted above, Anglo American Coal and BHP were both invited to make submissions and to appear at the committee's hearings. Anglo American Coal did agree to appear at a hearing but declined to make a submission. BHP declined to either make a submission or appear at a hearing.

3.48 The committee feels that these circumstances highlight the cavalier attitude of the mining companies and the Queensland Resources Council towards dust monitoring and mitigation. Their evidence also shows that they place a low priority on their statutory responsibility to provide satisfactory PPE and to ensure that workers wear PPE and remove themselves from hazards. The committee believes that this attitude has been encouraged by the light touch of Queensland's mining regulatory regime, with its focus on self-regulation and reporting and an absence of effective compliance and audit mechanisms. Chapter 4 includes the committee's recommendations on these issues.

### Screening process

3.49 The CWHS, as outlined in Chapter 2, was the subject of much discussion at the hearings and in submissions.

3.50 A review of the CWHS is the first of the five actions in the Queensland Government's action plan in response to the re-emergence of CWP.<sup>37</sup> According to the submission of the Queensland departments (Queensland Health and the DNRM), the review will determine:

- the adequacy and effectiveness of the existing medical assessment regime
- the expertise required to effectively monitor for pneumoconiosis
- the availability of necessary expertise in Queensland
- a strategy to ensure current mine workers are effectively screened
- recommendations about the current scheme to ensure it is fit for purpose for the detection of occupational lung disease through X-ray, spirometry, respiratory symptoms and other relevant medical information.<sup>38</sup>

3.51 The review, conducted by Professor Malcolm Sim from Monash University and assisted by Professor Robert Cohen from the University of Illinois, Chicago, is supported by a reference group 'comprising representation from mine workers, mine operations, medical professionals and regulators.'<sup>39</sup> The submission of Queensland Health and the DNRM noted its scope and limitations:

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36 Vale Australia, *Submission 200*, p. 3.

37 The Hon Dr Anthony Lynham MP, Minister for Natural Resources and Mines, Queensland Government media release, 'Action plan revealed on coal miners' health issue', Media release, 14 January 2016.

38 Queensland Government, *Supplementary Submission 69.3*, p. 3.

39 Queensland Government, *Supplementary Submission 69.3*, p. 3.

The reference group is not expected to provide advice on the control of respirable dust, or on regulated dust exposure limits and related issues. These important issues will continue to be addressed as a dedicated program of work for this initiative through the Coal Mining Safety and Health Advisory Committee which will be considering the findings of the review as part of the overall CWP response.<sup>40</sup>

3.52 This limit on the scope of the review was also criticised by the CFMEU.<sup>41</sup>

3.53 The head of the review team, Professor Sim described the matters giving rise to the review as follows:

As of December 2015, five confirmed and two possible cases of pneumoconiosis in coal miners had been identified in Queensland in 2015 after no new cases had been reported in many years. None of these cases had been detected within the existing coal mine workers' health scheme and therefore it is imperative that the design and operation of the respiratory component of the medical assessments performed under the Coal Mine Workers' Health Scheme be reviewed.<sup>42</sup>

3.54 The Thoracic Society representative, Dr Ryan Hoy explained that for 30 years CWP was considered eradicated, but problems in the screening processes, meant it is likely that cases of CWP had gone undetected:

I think that is very likely. Look at international data such as from the United States and the United Kingdom. With the screening program in the United States, the proportion of cases that are identified is around one to three per cent of workers. I think that demonstrates that in a different country with some differences in terms of their coal mining operations, these cases still do occur. I think it is likely that the cases have not been detected because of issues with the actual screening process, not that the cases were not actually occurring.<sup>43</sup>

3.55 Professor David Cliff, Independent Chair of the review's reference group, explained that a problem with the CWHS had been the conduct of the original assessments of x-rays:

The issue with the diagnoses is due to the adequacy of the original assessments that were undertaken. So we are now in the process of re-evaluating the adequacy of those assessments. The situation may have existed for a number of years. It is important to recognise that the diagnosis is the end product of a long time of exposure, so we could be talking about people who have been working in the industry for 10, 20 or 30 years... The diagnosis relates to a range of severities from quite difficult to detect to very easy to detect in terms of the X-rays and the lung obscuration, and a

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40 Queensland Government, *Supplementary Submission 69.3*, p. 4.

41 CFMEU, *Submission 199*, pp. 14-15.

42 Professor Malcolm Sim, Monash University, *Submission 197*, p. 4.

43 Dr Ryan Hoy, Convenor, Occupational Lung Disease Special Interest Group, Thoracic Society of Australia and New Zealand, *Committee Hansard*, 7 March 2016, p. 12.

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lot of these questions that have come up recently are at the least-detectable end. That does not excuse them not being detected; they should be done by competent people. The situation has been lying latent for quite a while in terms of the adequacy of assessment.<sup>44</sup>

3.56 Professor Cliff's evidence was that the quality of previous assessments of x-rays conducted under the CWHs had been patchy:

Prof. Cliff: I think it is fair to say that the standard of reading is variable. There has been a large number of radiologists and people taking X-rays for these medicals in recent years. There are something like 260 nominated medical advisers registered to undertake coal board medicals in Queensland and—

CHAIR: That is just in Queensland?

Prof. Cliff: Just in Queensland—there is a slightly different process in New South Wales. Similarly, they are dotted all over the state. They use X-ray facilities all over the state, some of which I have been advised are pretty average and some would be very good. There is no uniform standard at the moment or quality control criteria on that radiology, nor is there a minimum requirement on the nominated medical advisers, for example, to have occupational physician training or to be familiar with the coalmining industry.

CHAIR: The real concern is a quality control issue in terms of variability within the sector?

Prof. Cliff: There is a concern, yes, within the sector about the quality control and the rigour of the assessment. That is also, I suppose, exacerbated by the fact that, if you have very few cases of pneumoconiosis, then radiologists naturally will become unfamiliar with reading them. In America they have 1,000 cases a year, on average, so they are much more familiar with the cases. That does not, in my mind, excuse the quality control process, but we have erred on the side of not having too formal a process in Queensland.<sup>45</sup>

3.57 Part of the CWHs screening process is the role undertaken by the NMAs. As noted in Chapter 2, the NMAs manage the process of an employee's referral for x-ray, they are the holders of the medical records, and they are nominated and remunerated by the mining company. As Mr Michael Oswell, Head of Safety and Sustainability at Anglo American Coal told the committee:

The x-rays go through a process. We do not have people racing off getting x-rays willy-nilly. There is a process that goes with it. The referral starts with the nominated medical adviser and the consultation with the employee. The nominated medical adviser refers the employee to have the x-rays conducted. The x-rays are read and the report goes back to the nominated

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44 Professor David Cliff, Independent Chair, Queensland Government Review Reference Group, *Committee Hansard*, 7 March 2016, p. 63.

45 Professor David Cliff, Independent Chair, Queensland Government Review Reference Group, *Committee Hansard*, 7 March 2016, p. 64.

medical adviser. The report is given to the individual and the report comes back to us. That has been the process for many years. In my view, there would be no outstanding unread x-rays for our employees.<sup>46</sup>

3.58 Professor Sim told the committee that the review team had examined the process of the CWHS medical assessments as part of looking at the quality of the screening assessments:

The way it is set up at the moment is that there is a nominated medical adviser. Each of the individual mines can add a doctor to the list. That doctor can be any doctor; it does not have to be anybody with any training in occupational medicine or who has any familiarity with mines or coal dust exposure or the respiratory diseases related to coal dust exposure. There are around 240 nominated medical advisers on the list in Queensland at the moment. We have done a breakdown of where those NMAs are located. Most of them are well away from the mines areas. There is a large group of them on the Gold Coast and in Brisbane and just north of Brisbane.<sup>47</sup>

3.59 Professor Sim further explained that the review team considered that the NMAs 'need to have some background in the area of how to undertake medical screening'. NMAs:

...need to have some initial training and then some ongoing training and an audit of their performance as well, and that is something that has not been happening. It used to happen. They used to have a fairly small group of NMAs up until the boom in Queensland. There was a group of around 30 to 40 who did have initial training and ongoing sessions where they would get together and look at cases and have some ongoing audits of their performance. But, with the boom and the increase in the number of doctors who went onto the list, that fell away some years ago. We think that it is an important element of any medical screening program to have a smaller number of NMAs who are well trained and undergo ongoing clinical audit. That is certainly the way that our thinking is going at the moment in terms of recommending how this operates in the future.<sup>48</sup>

3.60 In Professor Sim's view, the main issue was that NMAs are not required to have specific experience of the mining industry and associated health conditions and are not required to be geographically close to the mines for which they work:

I think the main problem here is that many of the nominated medical advisers are GPs who do not have any experience of working in this specific area. This needs to have doctors who are well trained in this area, who understand these conditions and their relationship to coal dust exposure and who are able to assess that appropriately. I just do not think

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46 Mr Michael Oswell, Head of Safety and Sustainability at Anglo American Coal, *Committee Hansard*, 7 March 2016, p. 36.

47 Professor Malcolm Sim, Director, Centre for Occupational and Environmental Health, Monash University, *Committee Hansard*, 7 March 2016, p. 72.

48 Professor Malcolm Sim, Director, Centre for Occupational and Environmental Health, Monash University, *Committee Hansard*, 7 March 2016, p. 72.

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that GPs, especially those well away from coalmines, have the background to be able to do that...I think it is the lack of training and awareness of the main purpose of this medical screening program that has been the main problem with those particular doctors.<sup>49</sup>

3.61 Professor Sim's interim report was provided to the Queensland Government on 31 March 2016 and released publicly on 8 April 2016. The interim report findings are similar to the evidence Professor Sim and his colleagues provided to the committee on 7 March 2016. The findings included:

- that the current focus of the CWHS is to assess general fitness for work, and there is no focus on medical screening for CWP or overall respiratory health;
- the review team identified significant deficiencies in the CWHS in relation to the confirmed cases of CWP; and
- NMAs do not receive formal training, nor are they required to have any experience of the mining sector and related illnesses.<sup>50</sup>

#### ***Committee view***

3.62 The committee acknowledges the Queensland Government's response to the re-emergence of CWP and in particular commends the Queensland Government's review of the CWHS as a good initial step. The committee also supports the approach taken by Professor Sims, Professor Cohen, and their colleagues approach to the issue and their assessment of the flaws in the current CWHS assessment process. The review will, if its aims are achieved, assist in repairing coal mine workers' confidence in the CWHS.

3.63 However, the committee believes that the review should be part of a holistic response which prioritises on examining dust mitigation and monitoring as well as on personal protective measures for workers and screening. In this regard the NSW model is to be preferred over the Queensland model.

3.64 Further, the committee believes that there must be more done as part of the Queensland Government's review of the CWHS to ensure the independence and effectiveness of the NMAs. At the present time, the independence of the NMAs is called into question by their close association with and direct remuneration by the mining companies. Further, the committee notes Professor Sim's comments that the location and experience of the NMAs makes it difficult to ensure that NMAs have the capacity to thoroughly conduct medical assessments for coal mine workers. The following chapter includes the committee's recommendations on these issues.

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49 Professor Malcolm Sim, Director, Centre for Occupational and Environmental Health, Monash University Monash University, *Committee Hansard*, 7 March 2016, p. 74.

50 Centre for Occupational and Environmental Health, Monash University, and School of Public Health, University of Illinois at Chicago, *Interim Finding: Review of Respiratory Component of the Coal Mine Workers' Health Scheme*, 31 March 2016, pp. 5-9.

## Regulatory capture

3.65 Regulatory capture is the concept that regulators are subject to self-interest, or other forces, and influenced to select policies or make regulatory decisions which would not be supported by an informed public.<sup>51</sup> The Australian National Audit Office (ANAO) defines regulatory capture in its 'Better Practice Guide: Administering Regulation – Achieving the Right Balance':

One of the risks associated with formal and ongoing engagement [between a regulator and a regulated entity] relates to the issue of regulatory capture. This occurs where an officer involved in administering a regulatory regime develops a relationship with the regulated entity or industry and represents their interests in advance of the interests of the regulator.<sup>52</sup>

3.66 The ANAO Better Practice Guide sets out ways to minimise regulatory capture, and notes that in some circumstances the risk of regulatory capture may outweigh the benefits of interactions between the regulator and the regulated entities.<sup>53</sup>

3.67 The committee noted throughout its hearings that the regulatory scheme in Queensland appears particularly vulnerable to regulatory capture by mine regulators and other officials. An example of this issue is the NMAs, whose position is effectively owed to the mining companies who nominate them.

### *Nominated Medical Advisors*

3.68 The closeness of the NMAs to the mining companies was highlighted at the committee's hearing in Brisbane when Dr Edward Foley, NMA for the Vale Australia mining company's Carborough Downs Mine, appeared alongside Vale Australia representatives.

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51 Daniel Carpenter and David A Moss, Harvard University, Cambridge University Press, 'Preventing Regulatory Capture – Special Interest Influence and How to Limit it', 2014, p. 75.

52 Australian National Audit Office, *Best Practice Guide: Administering Regulation – Achieving the Right Balance*, 10 June 2014, p. 17.

53 Australian National Audit Office, *Best Practice Guide: Administering Regulation – Achieving the Right Balance*, 10 June 2014, p. 17.



Nominated Medical Advisor Dr Edward Foley (far left) and Chief Medical Officer, Dr Rob McCartney (middle) appeared at the committee's hearing in Brisbane on 7 March 2016 alongside representatives from coal mining companies Vale Australia and Anglo American Coal.

3.69 However the NMAs also have a statutory responsibility under the CWSHS to undertake coal mine workers' medical assessments. If NMAs are not fully independent of mining companies, it is possible, to paraphrase the ANAO, that they could develop a relationship with mining companies or the mining industry and represent those interests over interests of the regulator.

3.70 Best practice would dictate that a risk of this sort must be mitigated by a control measure, for example making the NMAs an independent position, selected through a rigorous process by Queensland Health in consultation with the DNRM.

3.71 This conclusion was not one which had occurred to Mr James Purtill, Director-General, Queensland DNRM. When asked about whether there were mechanisms for NMAs to avoid regulatory capture, Mr Purtill answered:

Mr Purtill: I am not quite sure what regulatory pressure they would be under, but I cannot really speak for individual nominated medical advisers.

Senator CAMERON: Are you serious?<sup>54</sup>

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54 Mr James Purtill, Director-General, Queensland Department of Natural Resources and Mines, *Committee Hansard*, 7 March 2016, p. 76.

***Department of Natural Resources and Mines***

3.72 The committee also noted the risk of regulatory capture with regard to DNRM officials. The DNRM works closely with the mining companies, particularly the Mines Inspectorate and the Commissioner for Mines Safety and Health.

3.73 Mr Purtill told the committee on 7 March 2016 that all departmental officers were trained in code of conduct and lawful decision making:

All of our regulatory staff go through specific training, depending on the authorisations that they are under, which will include elements of what I believe would be identifying regulatory capture, as with the code of conduct training. But as for a specific, if you like, training module that is termed 'regulatory capture' or similar, it is embodied in a broader range of training that we need for our authorised officers so that they make lawful decisions.<sup>55</sup>

3.74 Despite Mr Purtill being asked a question on notice about the specific regulatory capture training undertaken by DNRM staff, when Ms Rachel Cronin, Deputy-Director Minerals and Energy Resources, and Mr Russell Albury, Acting Chief Inspector of Coal Mines, spoke to the committee on 23 March, they were unable to provide specific details of regulatory capture training:

Senator CAMERON: I would assume that you would be ready for this question, given I did ask the question previously. What training have you had on the issues surrounding regulatory capture?

Mr Albury: I have had training since I have been in the government in relation to public servant ethics and appropriate behaviour, which includes capture, so I have an understanding of the topic and I know what my responsibilities are in relation to regulatory capture.

Senator CAMERON: What training did you get in regulatory capture?

Mr Albury: I am struggling. Public Service code of conduct competency or course.

Senator CAMERON: But nothing specifically on regulatory capture; it was general in that Public Service course. Is that correct?

Ms Cronin: If I may, Senator: all the staff in the public sector are reminded of their obligations to operate with integrity, that we are servants of the state and that we need to watch any conflicts of interest, and staff are asked to remove themselves from situations where there could be a perceived conflict.

Senator CAMERON: But being reminded of your obligation is not specific training, is it?

Ms Cronin: No, but we do undertake code of conduct training on a yearly basis—every staff member.

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55 Mr James Purtill, Director-General, Queensland Department of Natural Resources and Mines, *Committee Hansard*, 7 March 2016, p. 79.

Senator CAMERON: So we have an inspector of mines—I am just talking about the position, not the individual—who is the regulator for the industry. The industry is one of the most powerful industries in the country and the actual public servant who regulates that industry has had no specific training on regulatory capture. How does that work?

CHAIR: Ms Cronin?

Ms Cronin: Our staff are appropriately trained. I think it is well understood as to what conflicts of interest are and we manage that risk within our department and in our decision-making process.<sup>56</sup>

### *Chief Inspector of Mines*

3.75 The light-touch regulatory model in Queensland also allows for close relationships between mine inspectors and the Chief Inspector of Mines, and the mining companies whose activities are being regulated. This situation has the potential to be fertile ground for regulatory capture, as demonstrated by the discussion with the Acting Chief Inspector of Mines at the committee's hearing.<sup>57</sup>

3.76 An alternative to the ineffective Queensland regulatory model is the model in NSW. The committee heard evidence from the CEO of NSW Coal Services regarding structural mechanisms in the NSW model which limit the risk of regulatory capture between the regulator and the regulated:

Ms Flemming: Our model, of being owned by the employer group and the union group, with ministerial oversight, provides us with that. We need to do whatever the right thing is to do and we are not swayed by any of those parties. We deliver what the actual results or requirements are. So that is the beauty of having a model with all three parts to the puzzle—the union, the New South Wales Minerals Council representing the employers and the government oversight, as well.

Senator CAMERON: The dust monitoring in Queensland is basically the responsibility of the individual mines. The individual mines have indicated that they subcontract that to outside experts. You do not have that problem in New South Wales—where the mine is paying the people who have oversight of the dust. That is not an issue there, is it?

Ms Flemming: It is not an issue—no. We are obliged under order 40 and order 42 to carry out those services. When we are giving the dust results, they are just not going to the mine operator. As I presented earlier, they need to be shared with the industry inspectors, the CFMEU inspectors and, also, if a person has been in exceedance, the actual individual.

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56 Ms Rachel Cronin, Deputy Director-General, and Mr Russell Albury, Acting Chief Inspector Mines, Department of Natural Resources and Mines, Queensland Government, *Committee Hansard*, 23 March 2016, p. 49.

57 Ms Rachel Cronin, Deputy Director-General, and Mr Russell Albury, Acting Chief Inspector Mines, Department of Natural Resources and Mines, Queensland Government, *Committee Hansard*, 23 March 2016, pp. 54-55.

Senator CAMERON: With the sharing of information through the collaborative model, if there was a problem in one mine site with a health and safety, or if there was some analysis done that a miner had a fault that could be a health and safety issue, you would spread that across industry in New South Wales?

Ms Flemming: Yes. That is part of the Standing Dust Committee—those issues and emerging issues are discussed at that committee. Obviously, if there is any particular systemic issue, it would be alerted to all of the mines across the district.<sup>58</sup>

### ***Committee view***

3.77 The committee believes that the lack of awareness of the risk of regulatory capture by the most senior staff of the DNRM and the Acting Chief Inspector of Coal Mines is extremely problematic. Given the influence of the mining industry, particularly in Queensland, regulatory capture should be an issue of significant importance to the DNRM. The committee did not receive enough evidence to make a firm judgement on this matter, but expresses caution about that proximity and lack of oversight of these relationships.

3.78 The risk of regulatory capture of the NMAs is also particularly concerning given that they are the first point at which CWP would be detected. In the committee's view the risk of regulatory capture of the NMAs should be considered as important as the need for appropriate training and geographical proximity.

3.79 The committee is disappointed by the responses given by senior DNRM staff and the Acting Chief Inspector of Coal Mines at two of the committee's public hearings. While the committee hopes that Professor Sim's final report will deal with the issues of training and geographical location of NMAs, the committee strongly urges the DNRM and Queensland Health to conduct an independent risk assessment of the NMAs.

3.80 Further, the committee urges the DNRM to review its own policies and training on regulatory capture, with a view to identifying and managing the risks of regulatory capture, particularly in regards to the Mines Inspectorate within the DNRM. Chapter 4 includes the committee's recommendations on these issues.

### **Support for workers (current and former)**

3.81 The committee found little evidence of support for current and former workers as well as workers diagnosed with CWP. While the Queensland Government's review of the CWHS provided a re-examination of x-rays,<sup>59</sup> and companies like Vale Australia have initiated their own reviews of current employees'

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58 Ms Lucy Flemming, CEO, NSW Coal Services, *Committee Hansard*, 8 March 2016, p. 14.

59 The Hon Dr Anthony Lynham MP, Minister for Natural Resources and Mines, Queensland Government media release, 'Action plan revealed on coal miners' health issue', Media release, 14 January 2016.

x-rays,<sup>60</sup> there was no scheme for assisting former mine workers or those at other companies.

3.82 Mr Hiscock, a retired coal miner, appearing in a private capacity, told the committee of his experiences trying to get assistance to have his respiratory health assessed:

...as an ex-coalmine worker...I found out about the black lung at the mines that I worked at. I contacted the mines and said, 'How do I go about getting tested?' and they wiped their hands of me. I am an ex union member—as in I am no longer a financial [member]—but, if it were not for the union. I rang the union as a last resort and said: 'Can you help me? I want to get tested for black lung. Three of my workers that I worked with have been diagnosed with black lung.' They are now taking care of my X-rays and having them tested... I will use an analogy. When a car gets a recall, they tell everybody about it; but since this black lung has turned up nobody has contacted ex-coalmine workers. I think the companies have a responsibility. I was at one company for 8½ years, and not one person told, 'There're cases of black lung at this mine; go and get yourself tested.' I have had to find this out for myself.

Senator CAMERON: What mine was that?

Mr Hiscock: Carborough Downs Coal, in the Bowen Basin.<sup>61</sup>

3.83 Even before CWP re-emerged in Australia, the CFMEU argued that there was no procedure which allowed for the monitoring of the health of former coal mine workers:

There is no system in place for coal workers who have left the industry – to work in another industry, to retire or whatever – to be regularly monitored. It is known that CWP may take many years to manifest and is often asymptomatic in the early stages.

The CFMEU understands that in the nuclear power industry in the United Kingdom, workers are monitored for the term of their natural life – once they have worked in the industry they are subject to lifetime monitoring.

In Australia it is left up to individuals to seek further monitoring. This is thoroughly inadequate, especially in the context where radiologists do not have expertise in the diagnosis of CWP and, in the absence of obtaining a detailed work history, are unlikely to engage in the appropriate examination of X-rays or CT scans.<sup>62</sup>

3.84 The Thoracic Society, represented at the hearing by Dr Ryan Hoy and Associate Professor Deborah Yates, told the committee that they supported the idea of ongoing monitoring of workers' and former workers' health:

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60 Vale Australia, *Submission 200*, p. 3.

61 Mr Ian Hiscock, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016, p. 7.

62 CFMEU, *Submission 199*, pp. 15–16.

I think that we would like that [ongoing monitoring after a worker leaves the mining industry] to happen. When we are talking about surveillance and a total scheme, that is what we intended. We would recommend the WHO guidelines, which recommend surveillance or at least keeping the data for 30 years after the last employment.<sup>63</sup>

3.85 The Thoracic Society's view was supported by the Royal Australian and New Zealand College of Radiologists (College of Radiologists). Dr Richard Slaughter, representing the Radiologists College told the committee that there was a need for ongoing monitoring to detect CWP:

Yes, we have evidence that this disease is a progressive disease. So, just because you have stopped work that does not say that the disease is not going to progress. It does progress slowly, but it does progress.<sup>64</sup>



Mr Mark Nevin, Senior Executive Officer, and Dr Richard Slaughter, cardiovascular and thoracic radiologist, Royal Australian and New Zealand College of Radiologists appeared at the committee's hearing in Brisbane on 7 March 2016.

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63 Associate Professor Deborah Yates, Convener, Occupational and Environmental Special Interest Group, Thoracic Society of Australia and New Zealand, *Committee Hansard*, 7 March 2016, p. 12.

64 Dr Richard Slaughter, cardiovascular and thoracic radiologist, representative, Royal Australian and New Zealand College of Radiologists, *Committee Hansard*, 7 March 2016, p. 23.

3.86 The NMAs who spoke to the committee along with representatives from Vale and Anglo American Coal, Dr Edward Foley and Dr Rob McCartney, all agreed that ongoing monitoring of coal mine workers' health should continue after the workers' employment finishes:

Senator CAMERON: Okay. Finally, does anyone disagree with the need for ongoing monitoring? There is also the latency period—the period that people can make a workers compensation claim. Do you both agree that that should be extended?

Dr McCartney: I think that is the main issue. People leave employment, and they have been exposed to hazards that can cause chronic disease or to carcinogenic hazards. To cease health surveillance at the point of ceasing employment does not make sense, and they definitely should be followed up.<sup>65</sup>

Senator McLUCAS: Just on that question of post-employment monitoring: how long, in the view of anyone on the panel, should that post-employment monitoring continue for?

Dr Foley: Till death do us part.<sup>66</sup>

3.87 On the question of where responsibility and funding for ongoing monitoring should rest, a witness from the mining companies, Mr Andrew Vella, General Manager at the Vale Australia Carborough Downs Mine, told the committee that he thought some kind of industry-wide fund was required:

Because of the transient nature of many coalmine workers, there needs to be an industry process where some fund is set up for all mine workers. As you said, I can have workers work at my mine at Carborough Downs or at Anglo; they can work at various mines. It cannot be up to one individual company to do that based on that. It needs to be an industry fund of some sort.<sup>67</sup>

3.88 Dr Foley, NMA for the Carborough Downs Mine, saw the issue as 'a very vexed question' and speculated that funding could come from either the mining industry or through Medicare.<sup>68</sup>

3.89 In the meantime, the re-emergence of CWP had caused current miners significant concern, particularly those in Queensland who were now questioning the efficacy of the CWHS. Mr Hiscock explained that since the reports of workers diagnosed with CWP, it had become clear to miners that the CWHS was not effective

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65 Dr Rob McCartney, Chief Medical Officer, Anglo American Coal, *Committee Hansard*, 7 March 2016, p. 37

66 Dr Edward Foley, Nominated Medical Advisor, Carborough Downs, Vale Australia, *Committee Hansard*, 7 March 2016, p. 37.

67 Mr Andrew Vella, General Manager, Carborough Downs Mine, Vale Australia, *Committee Hansard*, 7 March 2016, p. 37.

68 Dr Edward Foley, Nominated Medical Advisor, Carborough Downs, Vale Australia, *Committee Hansard*, 7 March 2016, p. 38.

in detecting the disease. Mr Hiscock told the committee that the miners he had spoken to had lost faith in the system:

The boys that I spoke to have lost all faith in the Australian testing for black lung. They do not want them tested here in Australia. They say they have no faith in the system. It went to Dr Foley and over the years it has not been found. It is only thanks to the American class-B readers that now this has been brought to a head. Everybody now says, 'I want mine tested overseas,' because they have lost all faith. The guys are scared to speak up at the moment because of fear of being put on different crews or penalised, like where you go to day shift or you lose more money. So guys are ringing me now, going, 'Who do we turn to?'<sup>69</sup>

3.90 Professor Sim from Monash University, leading the review team examining the CWHS, also told the committee that he had seen a loss of confidence in the CWHS from coal miners:

...there has been a loss of confidence in the medical screening program in Queensland. I have had emails from coalminers and their families expressing concern over the reliability of the information that they have been given in relation to their medicals. They are worried that they may have some respiratory disease related to their work as a coalminer which has not been detected as part of the medicals. I suppose we were keen to do this phase, focusing just on the medical, to try and improve the situation, give some confidence back to the scheme and give some reassurance to those workers that their medicals are going to be providing accurate health information back to them in the future.<sup>70</sup>

3.91 A particular concern for workers seeking assistance with screening and advice on how to get tested for CWP is that due to the disease not being seen in Australia for 30 years, few medical professionals have encountered it in practice. As explained in Chapter 2, CWP can mirror symptoms of other respiratory illnesses, and so can be difficult to diagnose.<sup>71</sup>

3.92 At the committee's hearing in Mackay, Queensland, Mr Stoddart, described a similarly difficult path to a diagnosis of CWP. Mr Stoddart had an x-ray and CAT scan in September 2015 after a pain in his right lung. From that first x-ray examination which was referred by his GP in Bundaberg, Mr Stoddart had a further CAT scan, a PET scan, multiple x-rays, two lung biopsies, and was seen by his specialists in Bundaberg, Brisbane, and Emerald. The biopsies showed coal dust on Mr Stoddart's lungs and the diagnosis of CWP was finally made.<sup>72</sup>

3.93 Mr Stoddart explained how he had received no contact from his employer, Anglo American Coal, regarding his diagnosis:

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69 Mr Ian Hiscock, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016, p. 7.

70 Professor Malcolm Sim, Director, Centre for Occupational and Environmental Health, Monash University Monash University, *Committee Hansard*, 7 March 2016, p. 70.

71 Thoracic Society and Lung Foundation Australia, *Submission 194*, p. 3.

72 Mr Keith Stoddart, coal miner, private capacity, *Committee Hansard*, 8 March 2016, pp 2–3.

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Senator CAMERON: Other than a phone call from the nominated medical adviser, you had no input from that medical adviser at all?

Mr Stoddart: No.

Senator CAMERON: Has he ever rung up to see how you are feeling?

Mr Stoddart: No.

Senator CAMERON: Do you remember when he rang you?

Mr Stoddart: That was before Christmas.

Senator CAMERON: You have heard nothing from Anglo's medical advisers since?

Mr Stoddart: Not from their medical advisers, no.<sup>73</sup>

3.94 Mr Stoddart told the committee that to date he has paid the cost of his medical procedures and the cost of his travel to see specialists:

Mr Stoddart: I have paid for all of this myself. All of my travelling, all of my CAT scans, PET scans, the specialists: it has all come out of my pocket. The union paid for Dr Edwards.

Senator McLUCAS: Do you have any idea of the total cost that has come out of your pocket so far?

Mr Stoddart: Thousands. Plus the travelling for six hours each way to Bundaberg and all the way down to Brisbane.

Senator McLUCAS: It would be a lot of money, in my view.

Mr Stoddart: Yes.

Senator McLUCAS: Do you drive everywhere?

Mr Stoddart: Yes.<sup>74</sup>

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73 Mr Keith Stoddart, coal miner, private capacity, *Committee Hansard*, 8 March 2016, p. 6.

74 Mr Keith Stoddart, coal miner, private capacity, *Committee Hansard*, 8 March 2016, p. 3.



Mr Keith Stoddart and Mrs Danielle Stoddart appeared at the committee's hearing in Mackay on 8 March 2016.

3.95 Professor Cohen described the compensation program in the US:

Prof Cohen: A miner has to qualify by not only having the disease, but having it of a severity such that they are totally disabled from coalmine employment. If they meet that criteria they are considered to have a totally disabling black lung disease and they are paid full medical benefits for life for any lung-related condition including medications, hospitalisations and lung transplantations. In addition, there are cash benefits—workers compensation benefits—payed to them based on their last salary. That benefit is paid for life. If they pass away, their surviving spouse and children also get a cash benefit. That money comes from that. It comes from the insurer for the coal operator if that operator is still in business. So the coal company is what is called the responsible operator—the last operator for whom the miner worked for at least one year. That company is responsible for paying those benefits. If that company is no longer in business—if it is out of business and no longer exists—there is a trust fund which is funded by a tax on coal that is paid by the industry for each tonne of coal that is mined. That trust fund pays that person if the company no longer exists.

Senator CAMERON: So you would say that workers who do end up contracting this disease have significant support mechanisms?

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Prof. Cohen: They do. It is not an easy process to get this benefit but there is a very careful evaluation process that is fully funded by the government where each miner is entitled to a full medical evaluation. The company has the opportunity to manage the miner as well, and then those claims are adjudicated by the US Department of Labor's Division of Coal Mine Workers' Compensation. If they are ruled to have totally disabling black lung they are taken care of for the rest of their lives.<sup>75</sup>

***Time-limits on compensation claims***

3.96 Both Mr Verrall and Mr Stoddart are pursuing compensation claims on the grounds their illness has been caused by the coal dust present in their lungs. A factor affecting their claims will be the application of time limitations, which Mr Verrall, supported by his wife, told the committee had already set in for his case:

Senator CAMERON: I am asking about compensation for your lungs.

Mrs Verrall: We have a claim in now.

Senator CAMERON: So the statute of limitations has not kicked in, has it?

Mrs Verrall: Yes.

Mr Verrall: Yes.

Senator CAMERON: It has?

Mrs Verrall: Yes. We only had six years from when he left [the coal mining industry] to claim, and the solicitors have found that he was diagnosed with it—we were not told—in 2002 or 2003, or around that time.

Mr Verrall: And we were not told anything.<sup>76</sup>

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75 Professor Robert Cohen, Consultant, Queensland Department of Natural Resources and Mines, *Committee Hansard*, 8 March 2016, p. 37.

76 Mr Percy Verrall, retired coal miner, private capacity, *Committee Hansard*, 7 March 2016, p. 3.



Mr Ian Hiscock, Mr Percy Verrall, and Mrs Daphne Verrall appeared at the committee's hearing in Brisbane on 7 March 2016.

3.97 The CFMEU argued that the length of time for CWP to develop means that time limits to claims for compensation should be removed:

There should be no time limits on the diagnosis of CWP or entitlement to workers' compensation resulting from it.

It is already the case that some of the current cases of CWP are having their claim for workers' compensation rejected (or expect to have it rejected) because they are "out of time" to make a claim.

Given that CWP is an incurable disease that may take many years to manifest, there is no good reason for there being time limits on the making of claims arising from a diagnosis of CWP.<sup>77</sup>

### ***Committee view***

3.98 The committee considers that in the absence of any formal scheme and any clear communication to miners and former miners, there are likely to be individuals who have CWP and are not, and who should be, receiving medical treatment.

3.99 Although there have been some attempts, including those made by Vale Australia, to alert current miners to the re-emergence of CWP, and while noting that

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77 CFMEU, *Submission 199*, pp. 4-5.

work is underway to review the CWHS by the Sim review, this committee is disappointed that neither the Queensland government or coal mining companies in Queensland have made any attempts to encourage former miners to come forward and receive CWP screening.

3.100 The committee believes that providing access to appropriate screening and medical advice for both current and former miners should be a priority in any response to the re-emergence of CWP. Therefore the committee strongly urges the Queensland Government and the mining companies to be proactive in seeking out former mine workers who should be screened for CWP. Given the findings by the Thoracic Society that early detection can prevent workers from developing incurable and fatal PMF,<sup>78</sup> it is imperative that state governments and coal mining companies work collaboratively with the CFMEU to prevent this outcome.

### **Commonwealth Government action in mines health and safety**

3.101 The committee is conscious that at present, screening processes, health schemes, and regulations around health and safety for coal miners differ from state to state. The comparison of the Queensland and NSW regulatory systems shows two quite different systems, which ultimately results in differential health outcomes for coal miners in those states.

3.102 The Thoracic Society and the Lung Foundation Australia reached a similar conclusion in their recommendations and propose the development of a nation-wide framework to protect workers from dust disease. At the committee's hearing, Dr Hoy, representing the Thoracic Society, explained this proposal further:

We urge that...there is an undertaking for a national forum, with representation by physicians, workers, employers, the mining industry, trade unions and government agencies. A multidisciplinary forum would provide an opportunity to review the current state of knowledge regarding dust-induced pneumoconiosis, both nationally and internationally; review the adequacy of regulated exposure limits and associated control measures; structure a comprehensive, evidence-based worker-health policy which includes health surveillance strategies; and provide a means of training and certifying the competency of Australian specialists to be involved in surveillance programs and in the assessment and management of workers who potentially suffer from pneumoconiosis. The establishment of a national occupational dust disease advisory committee would periodically review the functioning of health practices and new evidence regarding occupational diseases in our country, and also oversee development of a national occupational lung disease strategy based on mandatory reporting.<sup>79</sup>

3.103 Dr Hoy also urged the committee to consider alongside a national forum that measures to protect workers from dangerous levels of coal dust exposure could be

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<sup>78</sup> Thoracic Society of Australia and New Zealand and Lung Foundation Australia, *Submission 194*, p. 3.

<sup>79</sup> Dr Ryan Hoy, Convenor, Occupational Lung Disease Special Interest Group, Thoracic Society of Australia and New Zealand, *Committee Hansard*, 7 March 2016, p. 11.

expanded to include protection for workers against other types of hazardous dust, including silica:

We urge that the committee consider the issues related to the protection of workers' respiratory health beyond the coal-mining sector in Queensland, and also consider other states and other pneumoconiosis, such as silicosis, as well as chronic bronchitis and emphysema, all of which occur with chronic exposure to coal dust.<sup>80</sup>

### ***National Mine Safety Framework***

3.104 An attempt to create a framework for a nationally consistent health and safety first began with the National Mine Safety Framework (NMSF), an initiative of the COAG Energy Council. Guided by the tripartite NMSF Steering Group from 2006 to 2013, which included workforce, industry, state and territory governments, and the federal government,<sup>81</sup> the NMSF consisted of seven strategies:

- Nationally consistent legislation
- Competency support
- Compliance support
- A nationally coordinated protocol on enforcement
- Consistent and reliable data collection and analysis
- Effective consultation mechanisms
- A collaborative approach to research.<sup>82</sup>

3.105 The NMSF Steering Group's recommendations on the implementation of the seven strategies were finalised in the National Mine Safety Framework Implementation Report, which was endorsed by COAG on 30 April 2009. The then Commonwealth Government committed \$3.3 million over four years from 2009-10 to 2012-13 for the implementation of the NMSF.<sup>83</sup>

3.106 According to its website, Safe Work Australia worked with the NMSF to develop draft workplace health and safety mines regulations:

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80 Dr Ryan Hoy, Convenor, Occupational Lung Disease Special Interest Group, Thoracic Society of Australia and New Zealand, *Committee Hansard*, 7 March 2016, p. 11.

81 Department of Industry, Innovation and Science, Australian Government, *National Mine Safety Framework Steering Group*, website, [www.industry.gov.au/resource/Mining/NationalMineSafetyFramework/Pages/NationalMineSafetyFrameworkSteeringGroup.aspx](http://www.industry.gov.au/resource/Mining/NationalMineSafetyFramework/Pages/NationalMineSafetyFrameworkSteeringGroup.aspx)

82 Department of Industry, Innovation and Science, Australian Government, *National Mine Safety Framework*, website, [www.industry.gov.au/resource/Mining/NationalMineSafetyFramework/Pages/default.aspx](http://www.industry.gov.au/resource/Mining/NationalMineSafetyFramework/Pages/default.aspx)

83 Department of Industry, Innovation and Science, Australian Government, *National Mine Safety Framework*, website, [www.industry.gov.au/resource/Mining/NationalMineSafetyFramework/Pages/default.aspx](http://www.industry.gov.au/resource/Mining/NationalMineSafetyFramework/Pages/default.aspx)

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It was intended the model Mines Regulations would be included in the model WHS Regulations. However, when the draft model Mines Regulations were finalised, the necessary majority agreement of state and territory Ministers was not achieved. Therefore, the model Mines Regulations are not part of the model WHS Regulations.

In September 2014, the draft model Mines Regulations were circulated to states and territories to consider them for implementation.<sup>84</sup>

3.107 In terms of progress since 2014, the Safe Work Australia notes that:

South Australia and the Northern Territory have mining regulations based on the draft model Mines Regulations. NSW has mining regulations that include the draft model Mines Regulations and other additional requirements. Victoria, Queensland, Western Australia and Tasmania have retained their existing regulations for mine safety. The Australian Capital Territory regulates mine safety using the general provisions of their WHS legislation.<sup>85</sup>

3.108 The Safe Work Australia website provides a table outlining the workplace health and safety legislation used by each state and territory for regulating mining.<sup>86</sup> It should be noted that while NSW has based its legislation on the model regulations, Queensland maintains the Coal Mining Safety and Health Regulation 2001 which prescribes the CWSH and the current acceptable levels of respirable dust in Queensland.

3.109 Both Safe Work Australia and the Federal Department of Industry, Innovation and Science were invited to make a submission to the committee's inquiry. Safe Work Australia declined to make a submission, but has provided answers to written questions. The Department of Industry, Innovation and Science did not provide a submission.

#### ***Committee view***

3.110 Although CWP cases have at this stage been confined to Queensland, it is entirely possible that cases will emerge in other Australian states. Therefore, the committee believes that without Commonwealth Government involvement, any response to the re-emergence of CWP will not be adequate.

3.111 The NMSF has been a valuable step towards developing national standards, but progress since 2014 has been limited as the level of engagement with the states has changed from the COAG Ministerial level to departmental officials. Under these circumstances there appears to be little prospect of the structural change which is

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84 Safe Work Australia, *Workplace Health and Safety Information: Mining*, website, [www.safeworkaustralia.gov.au/sites/swa/whs-information/mining/pages/mining](http://www.safeworkaustralia.gov.au/sites/swa/whs-information/mining/pages/mining)

85 Safe Work Australia, *Workplace Health and Safety Information: Mining*, website, [www.safeworkaustralia.gov.au/sites/swa/whs-information/mining/pages/mining](http://www.safeworkaustralia.gov.au/sites/swa/whs-information/mining/pages/mining)

86 Safe Work Australia, *Workplace Health and Safety Information: Mining*, website, [www.safeworkaustralia.gov.au/sites/swa/whs-information/mining/pages/mining](http://www.safeworkaustralia.gov.au/sites/swa/whs-information/mining/pages/mining)

needed to ensure that state regulations, particularly in Queensland, effectively protect workers' health and safety.

3.112 In terms of its overall conclusions, the committee believes that it is clear from the evidence that dust mitigation should share priority with protection of workers and health screening. The more coal dust mine workers are exposed to, the greater their chance of developing CWP. The longer that CWP goes undiagnosed, the greater the chance of it progressing to PMF. So it is clear that high quality dust controls and monitoring in the workplace, in tandem with best practice health monitoring outside the workplace, are essential to eradicating CWP in Australian coal workers.

3.113 In addition, the committee believes that all coal miners who contract CWP in Australian coal mines should have the benefit of free on-going, nationally consistent medical treatment.

3.114 The committee further believes that all coal miners who contract CWP in Australian coal mines should be able to lodge a claim for support without time-limit. In the event of the coal worker's death, families of those miners should be entitled to lodge the claim. The model for such a scheme could be based on the US model described by Professor Cohen. The committee makes recommendations on support and assistance for current and former coal miners in Chapter 4.