



# ***COAL WORKERS' PNEUMOCONIOSIS SELECT COMMITTEE***

**Members present:**

Mrs JR Miller MP (Chair)  
Mr CD Crawford MP  
Mr J Pearce MP  
Mr S Knuth MP  
Hon. LJ Springborg MP

**Counsel assisting:**

Mr B McMillan (Barrister at Law)

**Staff present:**

Dr J Dewar (Research Director)  
Ms M Salisbury (Principal Research Officer)  
Mr S Finnimore (Principal Legal Adviser)

## **PUBLIC HEARING—INQUIRY INTO COAL WORKERS' PNEUMOCONIOSIS**

### **TRANSCRIPT OF PROCEEDINGS**

**FRIDAY, 11 NOVEMBER 2016**

**Brisbane**

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### **Committee met at 9.02 am**

**CHAIR:** I declare open the public hearing in the coal workers' pneumoconiosis inquiry. I thank everyone for their attendance here today. I am the chair of the inquiry. My name is Jo-Ann Miller and I am the member for Bundamba. Other committee members present today are Lawrence Springborg MP, the member for Southern Downs and deputy chair; Craig Crawford will be joining us in about half an hour—he has had to pop out to another meeting; and Shane Knuth, the member for Dalrymple. Joe Kelly, the member for Greenslopes, is being replaced by Mr Jim Pearce for the committee meeting today. Mr Jason Costigan has asked that I pass on his apologies for today. Unfortunately, both of those members cannot be here obviously because of Remembrance Day ceremonies in their electorates.

Those here today should note that the hearing is being transcribed by Hansard and that media may be present, so media may come in and out during the day so you may be filmed or photographed. Before we commence, I ask that all mobile devices be turned to silent mode or be turned off. I apologise to everybody; I have asthma. I am a lifelong asthmatic, so if I have to duck out please accept that it is from medical issues and Lawrence Springborg will take over. This hearing is a formal committee proceeding. The guide for appearing as a witness before a committee has been provided to those appearing today. The committee will also observe schedules 3 and 8 of the standing orders.

**BERTRAM, Ms Judy, Deputy Chief Executive and Director, Community and Safety, Queensland Resources Council**

**ROCHE, Mr Michael, Chief Executive Officer, Queensland Resources Council**

**WITHERIFF, Ms Lucy, Policy Adviser, Health, Safety and Community, Queensland Resources Council**

**CHAIR:** I welcome witnesses from the Queensland Resources Council. Thank you very much, Mr Roche.

**Mr Roche:** Thank you, Chair. I want to thank the committee for asking the Queensland Resources Council, which I will refer to as the QRC, to appear today to speak on behalf of our members. I want to introduce my QRC colleagues: Ms Judy Bertram, our Deputy Chief Executive and Director of Community and Safety; and Ms Lucy Witheriff, Policy Adviser on Health, Safety and Community. QRC is the peak representative organisation for Queensland resource sector companies and our membership encompasses close to 100 per cent of coal production in Queensland. In 2015-16 the Queensland coal industry was responsible directly and indirectly for \$33 billion or 11 per cent of Queensland's gross regional product and 184,000 jobs in the Queensland economy. Queensland coal operations purchase goods and services from 11,000 Queensland businesses. Even in a down year for coal prices, the Queensland government received \$1.6 billion from coal companies in royalties to fund our health system's doctors and nurses, our state's teachers and police. None of these contributions are possible unless we have a sharp focus on the health and safety of our workers, and the industry prides itself on ensuring the highest standards of health and safety. Therefore, the QRC and its coalmining members were surprised and extremely disappointed to learn last year that a disease we all thought was confined to the past had been reidentified amongst our coal workforce.

In the course of this opening statement, I propose to cover what our members regard as the three key issues. First, I will address the need for us to understand what has allowed everyone associated with the coal industry in Queensland to believe that coal workers' pneumoconiosis, or CWP, was a condition of the past. Second, I want to detail for you what industry has done since the reidentification of the disease. Third, I want to discuss what the QRC believes needs to be done moving forward, including what can be done to better support affected current and retired workers.

It is absolutely unacceptable to the entire resource sector that people are injured at work. What happened in the case of CWP? Industry does not shirk its responsibility to be part of the CWP solution. However, it is important that we acknowledge that there is not one particular person or organisation

to whom we can point the finger of sole blame for this unhappy situation. The employers along with the department and inspectors and the unions are all in this together. Quite frankly, industry was stunned when cases began to be identified last year and we were even more shocked to find out that the health screening process we relied on to inform us if there were any problems had drifted to a point of abject failure. In Queensland mines the safety management systems incorporate rigorous processes to manage exposure to dust. Queensland's dust exposure standard of three milligrams per cubic metre is the same as the Australian standard. Industry has been abiding by the legislation, which includes dust monitoring, and the development and implementation of systems to address the risk of respirable coalmine dust. I note that there have been comments made during presentations to this committee which implied that companies may not have been recording accurate results since this issue came to the fore or that companies have sought to have the directives placed on them lifted by means other than complete compliance with regulated dust limits. I want to assure the committee that when directives are issued—and it is a legitimate role of the inspectorate to do so—companies work diligently with inspectors to improve practice to ensure that dust levels are as low as reasonably achievable. That is the legislative requirement and all of our coal producers take that requirement very seriously.

Much has been made of the fact that there are still compliance directives active. While the QRC does not have the information required to discuss specific directives, we understand that those details have been provided to the committee. We are confident that this information will demonstrate that the process being followed is an effective one. The QRC has been advised by its members that they are complying with these directives in order to ensure sustainable compliance with regulated dust limits. There are a number of directives which have been closed off and the QRC believes that this demonstrates that the system is working to heighten the attention being given to this issue. Coalmining companies were of the belief that they were effectively managing the risk from respirable coalmine dust. Believing that the Coal Mine Workers' Health Scheme was working, there was no reason to suspect that anyone was being exposed to unsafe dust levels. Companies were complying with their requirements under the health scheme by ensuring workers completed pre-employment medicals with reviews up to every five years, with at-risk workers getting screening X-rays in accordance with legislation. This was a process in which the industry had enormous faith.

The Monash review of the respiratory component of the coal workers' health scheme identified a number of systemic and operational faults with that scheme. Industry was completely supportive of the minister undertaking that review and recognises that its findings have identified that there were a number of areas where employers can also help improve the scheme's effectiveness. Industry also recognises the need to review and improve dust control measures. Prevention is the main thing. The coalmining industry and the QRC therefore look forward to positive engagement in the process of developing all of the required changes. This brings me to what industry has done since learning of the reidentification of coal workers' pneumoconiosis. I am proud to say that the coal industry has united around the common cause of working collectively since the first case was confirmed last year to achieve sustainable solutions. Industry is completely supportive of, and has fully cooperated with, Minister Lynham's five-point plan to tackle CWP. This plan of course included the very important Monash review, which revealed the failings of a system and testing that was trusted and relied upon by coal companies to ultimately demonstrate whether dust control measures were effective.

Industry has not been sitting on its hands waiting for Dr Lynham to come up with all the answers. Coal companies have been delivering information and awareness programs to their workers while many others began to offer new X-rays using a dual reader process to any workers who had concerns. Given advice that in some cases signs of the disease appear to have been missed in an earlier X-ray taken under the scheme, this level of concern in workers is perfectly understandable. When more cases of CWP began to be identified in late 2015 and early 2016, the QRC understands that the Workers' Compensation Regulator developed a fast-tracked process for considering the claims of diagnosed workers. I am aware that evidence to that effect was given to this committee by the Office of Industrial Relations. The QRC is advised by its members who are self-insured companies that they have also alerted their schemes of the possibility of claims. I note here that these self-insurers are subject to rigorous audit and review processes.

The industry has also conducted a dust control workshop in Moranbah, which is one of the heartlands of Queensland coal. This workshop was extremely successful and all eight companies with underground mines attended and contributed, which reflects industry's commitment to prevent the disease by reducing dust levels in mines. The workshop allowed companies to share good practice controls, innovations or activities that can be put in place at mining operations to protect workers from being exposed to harmful levels of dust. It is an excellent example of the underlying edict that there is no competitive advantage in health and safety.

Lastly I want to discuss some of the things that industry believe would help set an appropriate course of action going forward. Evidence has been provided to this committee which suggests that some workers who have been diagnosed with CWP because of their particular circumstances have had difficulty in accessing workers compensation benefits. Ms Bertram and I met recently with two men who had been confirmed as having CWP. These men told us their personal stories and outlined difficulties experienced by some CWP sufferers in accessing workers compensation. We have considered both these personal stories and the evidence given to this committee and we have come to the view that the workers compensation system may need revising so that it can better deal with the issues raised by long latency diseases such as CWP and in particular the diagnosis of such diseases in workers after they leave the industry or retire.

The QRC believes that workers who contract CWP at work should receive compensation in a timely fashion, and provision for coal employers to fund that should be provided through the workers compensation scheme. Evidence has been presented that the workers compensation scheme may be challenged in dealing with cases that have been confirmed as so-called simple cases of CWP, being those individuals who have little or no impairment to work and if removed from potential dust exposures are likely to live long and healthy lives. The concern is that such workers are likely to experience a negative impact on their future earning capacity. It appears that the workers compensation scheme may not be appropriately designed for these situations.

Some workers have advised that their only recourse may be to make a common law claim for loss of earnings. QRC believes the process to give these workers fair compensation should be as streamlined as possible. QRC also believes that retired workers should be able to have screening tests, such as X-rays, CT scans and reviews by specialists, and that industry should also fund this through the workers compensation scheme.

The QRC does not believe we need to establish a new process and new fund to allow these things to happen. Doing so would be overly bureaucratic and inefficient by unnecessarily duplicating processes and systems already in place. What QRC wants to see is an expedited process to review, and if necessary, close the gaps in the existing workers compensation scheme in relation to CWP. That scheme is of longstanding and is generally effective and is already funded through the premiums that are paid by employers. If there are gaps in the scheme that need to be rectified in order to effectively deal with CWP victims, then QRC supports that happening. The workers compensation premiums of coal companies may need to increase as determined by actuarial review. However, that approach would be far more efficient than setting up a new fund and whole new bureaucracy.

I have written to the Minister for Employment and Industrial Relations, Grace Grace, requesting that she establish a multistakeholder task force to urgently consider whether amendments to the workers compensation scheme are necessary to plug any gaps in the scheme that may have been revealed by these CWP cases. We envisage that this task force should be chaired by an eminent independent person with relevant experience and comprise representatives from WorkCover, self-insurers, the unions, the QRC and the minister's department. We believe that this task force should be asked to report to the minister by no later than the end of March 2017.

QRC is already taking the lead in undertaking preliminary industry consultation on these issues and has convened a coal employer working group to assist in identifying any gaps and, where necessary, to recommend changes. This coal employer working group met this week and unanimously endorsed the QRC proposal for a task force. I seek leave from the chair to table the QRC's letter to Minister Grace.

**CHAIR:** Leave is granted.

**Mr Roche:** We also have further copies for the committee. QRC also believes that this parliamentary select committee can play an important role in ensuring that there is a proper systematic review to gain whatever knowledge can be drawn from the recent confirmed CWP cases. Largely due to privacy concerns, industry has not been given comprehensive details around the work history and diagnostic process of the disease in the 16 confirmed cases.

Whilst it is important to protect individual's medical records, there simply has to be an analysis of these confirmed cases so that we can learn as much as possible from them. We note that there are, in particular, cases with an atypical history of exposure to coal mine dust. All parts of the industry need to work together to try to understand what went wrong and where. With the latest case coming from the open-cut sector, which historically has had lower exposure risk than the underground sector, this need is highlighted.

We should also all work together to use the recommendations of the Monash review as the basis to build an improved and sustainable respiratory health scheme. Again, we need to be careful about building unnecessarily bureaucratic systems, but the important parts of the screening process

need to be auditable to ensure ongoing effectiveness. We need to disentangle the issue of screening for occupational disease from fitness for work. That is the recommendation of the Monash review and it is consistent with the longstanding position of the QRC.

We also share relevant information in a tripartite fashion across all stakeholder groups, not just within the QRC. We should never stop seeking to innovate. Innovation can come from any sector. The coalmining industry is at the forefront of innovative techniques that will continue to minimise exposure to dust, such as the application of technology to enable workers to operate remotely. The QRC supports the use of the existing advisory committee process to coordinate this information sharing and innovation seeking process.

The QRC also supports an evidence based review of Australian dust exposure levels being undertaken by Safe Work Australia. The QRC has long advocated the adoption of uniform best practice safety requirements across mining jurisdictions and a review of Australian standards is consistent with this. However, we also need to ensure that the application of the standard is similar across jurisdictions. Doing so would be consistent with establishing a best practice approach.

Finally, industry is, of course, open to hearing ideas about what more can be done to ensure worker health and safety. We hope that this current inquiry reveals further positive mechanisms that can be put in place to protect the workers who play a crucial role in the economic wellbeing of this state.

**CHAIR:** Thank you very much, Mr Roche. We will now go to the deputy chair for question.

**Mr SPRINGBORG:** Thank you very much, Mr Roche, for your evidence. Welcome to you and your colleagues. We have been hearing some rather startling evidence during the course of our public discussions since 14 October around surprise and general incompetence, but not really many good explanations about how all this happened. That is what we are trying to get to the bottom of.

One thing that I have been concerned about—and I have asked other witnesses about this—is the use of the term 're-emergence'. I note in your letter to the Senate select committee you use the term 're-emergence'. Do you believe that that is an appropriate term given the fact that it appears that black lung has probably been there—ever present—since there was last broad scale testing for it in 1984?

**Mr Roche:** You might have noted that in my opening statement I deliberately did not use that term. I think the industry would prefer to use the term 're-identification'.

**Mr SPRINGBORG:** I think you may have used the term 'identification' once and 're-emergence' in your letter to the Senate select committee. Basically, given what has happened since early this year you have now moved away from that term and believe that 're-identification' is a better term in general?

**Mr Roche:** I think we are all needing to take on board the information that comes to hand in terms of the Ratus report and information from workers compensation results—a lot of information that was not available to the contemporary coal industry. Yes, I agree with your correcting of that term. We do not use that term in our language now.

**Mr SPRINGBORG:** I note that you mentioned a number of times in your oral submission to the committee today that you do not want us to build overly bureaucratic systems to try to respond to this and you want something that actually works. It is my observation—and it is mine—that all we have had over the last few years is a bureaucratic system which was not about identifying issues but about bureaucratic processes and ticking boxes. That is probably where it went wrong. We had particular rules that were set down around reporting certain things, but not to find the truth, and basically when it was identified stick it in a box somewhere or someone would just say, 'We did our bit over here. We monitored it over here. Somebody went through a nominated medical adviser, but nothing ever came back to them. The department received something over here and they put it in box so everyone was happy in believing that they had done their job,'—they just ticked the bureaucratic boxes. I think it has been a bureaucratic failure. Do you have any observations on that?

**Mr Roche:** I think it is a systemic failure on the part of multiple parties. Your use of the term 'bureaucratic' implies blame in one direction. If that is what you are doing, I do not accept that. I think it was very much a case that compliancy had set in. Just remember that the health assessment scheme was not throwing up information to suggest that coal workers' pneumoconiosis was a present, current condition. We were not getting those cases confirmed.

Even in the case of what we have now learnt to be a workers compensation matter in 2006-07, because there was no current employer and there were no protocols about passing that information from one part of the bureaucracy to another part of the bureaucracy, industry was unaware of that

case. In the case of Rathus, with the wonders of scanning and digitisation everyone can have a good read of Rathus. In 1984 that was not available. Rathus reports were probably common knowledge at the time, but that is knowledge that was lost as people retired, left the industry, companies closed. We are as puzzled as anyone in terms of what happened to those workers—where the records are about those workers. I think that it was complacency, but I think the key issue was that no-one in the industry received a signal of a problem via a diagnosis of CWP through the reading of X-rays.

**Mr SPRINGBORG:** Before I go to my next question, with regard to bureaucratic failure, large corporate entities, smaller entities and even NGOs can be subject to bureaucratic failure. I use the term 'bureaucratic failure' as internal processes gone wrong in a myriad organisations, whether it be government or the entities that are involved directly in mining. With regard to the nonreceipt of information, I understand that the mining companies themselves have a particular involvement with regard to nominated medical advisers. There is a role there and a relative closeness.

**Mr Roche:** Under the scheme as it operates at present, it is the company's responsibility to secure the services of an NMA. As we know, under the Monash review recommendations that will change both in terms of number of NMAs and also the role of the department in approving NMAs. We support those recommendations.

**Mr SPRINGBORG:** I suppose you would argue that because of the fact that the only part of the process was that there be a nominated medical adviser then there was no sentinel around the competency of those particular medical advisers to be able to do what they needed to do with regard to the identification and follow-up of the respirable disease?

**Mr Roche:** Again, the Monash review has shone a light on the issues there in terms of the lack of training and a lack of familiarity with the working environment of workers that they were assessing. It is an important learning. In terms of your comments about bureaucratic failure, I think this has been a classic case of where the only information you are getting is in the negative—that is, there is not a problem because there has not been a diagnosis of CWP—then everyone assumed, unions, the regulator, the coal companies, the Queensland Resources Council, the medical profession, that what was being done was working because there was no diagnosis. In that sense, you could call that a bureaucratic failure.

**Mr SPRINGBORG:** So you do not have any concerns about the closeness of the nominated medical adviser with regard to the entity that is operating on behalf of the coal worker being the coal company itself or the mine itself?

**Mr Roche:** No, I do not. I have trust in the medical ethics of our medical profession.

**Mr SPRINGBORG:** I go to Professor Sim's report where at the top of page 12—and this is of particular concern—it states—

- Review of the original radiology reports for the 18 positive cases found only two which identified abnormalities consistent with pneumoconiosis ...

There are different types of pneumoconiosis of course, but we are talking here about coal workers' pneumoconiosis, black lung and silicosis. The report continues—

13 were reported as no abnormalities, and three reports were missing.

- Follow up by the NMA was not done in the two cases where the original radiologist had identified changes on the CXR.

There was a complete and absolute failure with regard to the circumstance which relied upon the nominated medical adviser to come back and inform the worker. What would you expect the normal situation to be with the nominated medical adviser given the involvement of a mining company, for example, or the employer? Do they receive, or would you expect them to receive, information routinely that may act as a sentinel or a beacon that there is a problem—if there were a problem?

**Ms Bertram:** There is always an issue around private medical information, Mr Springborg, so we get caught in the middle of that. Clearly the employers are seeking to make sure that these workers are fit for duty, but there needs to be a process where if a condition such as CWP is picked up the worker needs to be appropriately treated for the safety and health of that worker.

**Mr SPRINGBORG:** You would expect that, if CWP had been identified by the nominated medical adviser or through that process, the employer should be advised?

**Ms Bertram:** Ultimately, because they will not be able to be placed in dusty environments.

**Mr SPRINGBORG:** In those cases apparently nothing really happened. I go to the issue of WorkCover, which could have been another sentinel issue. Mr Roche, I think you mentioned a case where WorkCover had been paying out. We heard at least a couple of cases, if I remember rightly, and there had been other cases which had been claimed for and rejected which may now be

reconsidered. Again, to be clear, you are not aware of any of those issues around confirmed cases of black lung where WorkCover payments were being made to workers? You are not aware of it from your background or any information from your members and nothing subsequent?

**Mr Roche:** No. Let us be clear on the history. There was one case in 2006-07 involving a worker where there was no current employer entity. That entity had ceased operation so there was no employer to notify. I will come back to protocols. You refer to a second case that was not in the coal industry. That has subsequently been confirmed that it was not the coal industry. You have to then go forward to 2015 for our industry to be receiving advice about diagnosed cases. What did not happen in 2006-07 in that particular case was that there was no protocol for the workers compensation people to advise, for example, the mines department. There is such a protocol now, I understand, but it did not exist back then. There was no advice to the mines department and definitely no advice back to the Queensland Resources Council or the coal industry more generally.

**Mr SPRINGBORG:** So another example really of parts of the puzzle doing what they should be doing in isolation but not being joined up on the mat, so to speak.

**Mr Roche:** I think that is a fair observation.

**Mr SPRINGBORG:** From evidence we have heard and from reports that we have reviewed, there have been many detections of dust levels being consistently above the three milligrams per cubic metre over an eight-hour period. We have heard evidence that in cases that does not automatically trigger any action and may not trigger any action further down the track. That was the evidence I think we heard in Bundamba the other day. We were told that sometimes it is taken to a seminar and they talked about what they were going to do with it at a seminar somewhere down the track. Can you step us through what would happen where a worker is fitted with a monitor and it shows an elevated level of dust over an eight-hour period? Keep in mind that workers can now work up to 12 or 16 hours underground. What happens in those circumstances of elevated dust levels. I think Simtars and other bodies will do monitoring on your behalf. You may do it yourself. What do you do? Do you proactively do something and how do you do it, or do you wait for someone to come and knock on your door?

**Ms Bertram:** It would be part of the safety and health management system for all companies. The dust-monitoring process is a key component of that system. Where there is exceedance, there are processes around what needs to occur and that would include generally a process of review and investigation.

**Mr SPRINGBORG:** So you get the results. It says there is an elevated level of four, five or 3.1 milligrams, whatever the case might be. That is given to you fairly quickly. How long does it take for you to receive that information? Is it real-time or immediate?

**Ms Bertram:** I think it varies but generally it is not instantaneous. There are some issues around instantaneous real-time monitoring including electrical issues. I think they could expect to receive it within a couple of days from those independent sources.

**Mr SPRINGBORG:** What happens after that? Do you relook at it to see if anything has changed with regard to those levels at that stage?

**Ms Bertram:** It would be part of the safety and health management systems through that process of review. The companies would have a process they need to go through to identify what occurred. Was it only one part of that SEG that experienced that high level of dust reported or was it across-the-board? What was happening at that time? Where was that person—if it was one person—and where were they positioned? You would seek to understand what had occurred.

**Mr SPRINGBORG:** Then you will look at suppression issues and availability of PPE, which one would assume would be generally available and one would assume not all workers would wear?

**Ms Bertram:** The dust control measures are dependent upon the type of work that is being done. At times PPP or RPE would be what would be used, but at other times there would be engineering solutions that would be required as well.

**Mr SPRINGBORG:** We have also heard evidence during our inquiry that there have been many changes in technology with regards to mining in the last 50 or 60 years which have led to high levels of productivity and output, and that is great for such a critically important industry for Queensland which hopefully will continue to be for many decades and generations to come. There have been advances in technology which have made that change. Are there concerns that we have not been able to get a proper handle on the high-production issues and the potentiality that longwall mining and degasification, leading to dry dust, have made the management of dust a greater issue or more challenging?

**Mr Roche:** I think that is a fair comment. There are often trade-offs between one element of safety and another element of safety. To the extent that it is good for safety to degas a mine before mining the coal, that does perhaps also result in the coal being drier and potentially dustier. The challenge for our industry is that as advances are made in production technology they have to involve matching advances in dust management, ventilation and what-have-you, and that is an ongoing challenge for the industry.

**Mr SPRINGBORG:** I have a question which relates to the current level which is three milligrams per cubic metre over an eight-hour period. I understand that in the United States that is being reduced to one milligram. I stand corrected if there is other advice. Does the Resources Council have a position with regard to that current level being adjusted down closer towards one milligram?

**Mr Roche:** As outlined in our opening statement, what we do support is the current Safe Work Australia review, and where it lands we would expect to be adopted in Queensland. You need to be careful about cherry-picking from other jurisdictions. The US, for example, does not cover itself in glory when it comes to X-rays for their workers.

**Mr SPRINGBORG:** Absolutely. That is the other thing we have heard—very high levels, I think up to about 11 per cent with regard to CWP or other dust diseases amongst their workers. We do understand that. Whilst they may be more competent at detection and monitoring, there are serious issues. That begs the question of the underlying rate of coal workers’ dust disease, possibly pneumoconiosis, that remains undetected out there. We would hope that our level is much lower than that and not more than the 18 we currently have.

**Mr Roche:** Sixteen.

**Mr SPRINGBORG:** Sixteen—maybe more.

**CHAIR:** I have a couple of questions, Mr Roche, in relation to the task force that you alluded to before and the date being the end of March 2017. How would that help people, like Percy Verrall, who may die before then?

**Mr Roche:** That is a very good question. I would hope that wherever possible there is action in the meantime to deal with cases such as Mr Verrall’s. We do not want a situation where there is an argument about assigning responsibility. To the extent that the scheme can deal with a prompt answer for someone like Mr Verrall and let the insurers work it out subsequently, that is what we would like to see. To the extent that there are any legislative impediments to that, that needs to be called out and fixed.

**CHAIR:** In relation to Mr Verrall, if Mr Verrall or anyone else were to pass away before this scheme that you are proposing comes into place, would any compensation be paid to his wife or his family? Do you consider that that would be appropriate?

**Mr Roche:** Personally, yes, but the idea is to get some expertise around the table and quickly come up with solutions. If the task force idea is adopted and it can be done more quickly, that is terrific. We are trying to be realistic about a date in nominating the end of March.

**Ms Bertram:** The long-latency provisions should apply to Mr Verrall, and should, as you say, he not live through next year then that compensation fund should pay to his family.

**CHAIR:** Mr Roche, do you absolutely reject the union proposal of a levy of 10 cents per tonne to assist these miners?

**Mr Roche:** I would rather put it more in the positive that I think we have a good workers compensation scheme in Queensland but it can be made better, it would seem, based on our discussions with some victims and in reviewing the evidence and in our discussions with the Workers’ Compensation Regulator. What we are recommending is that we fix the current scheme rather than create a new bureaucracy. You should not underestimate how long it would take to come up with the rules and the bureaucracy around a separate fund. Let us use the apparatus we have got but make it better.

**CHAIR:** Mr Roche, I was heavily involved in the Bundaberg Hospital debacle, which is what it was, to be quite frank. Many of us, including the deputy chair, were members of parliament when that occurred. Basically, very quickly an independent mediator was appointed and the process for compensation for those patients was quite fast. I suggest to you that that could be an alternative that we could get up and running fairly fast in relation to assisting the patients. Would you consider that at all, as being another model that could help the coalminers?

**Mr Roche:** We have brought to you a proposal in a model that we think is workable. It is up to this committee to make its recommendations around the issue of compensation, but I would hope that government will not sit around waiting for your report, which I understand is not due until April.

**CHAIR:** Can I stop you there, Mr Roche. That is the end date if as a committee we choose to take it out that long. It is the intent of the members of this committee to not dillydally, but to have this report before the government as soon as possible. It is the view of this committee, Mr Roche, that there are men and maybe women who are dying. Therefore, we need to get on with the job. That is the intention of this committee.

**Mr Roche:** Sure. I am happy to be corrected about your processes. I would encourage the government to consider our proposal and, if it is attractive, to actually get on and do that work. I do not think anything is lost if the current workers compensation scheme in Queensland is fixed where it needs to be fixed to deal with the issues that have been identified in our own meetings with victims and in the evidence given to this committee.

**CHAIR:** I turn to some of the evidence that we took on Friday. For example, Mr Verrall's evidence was that his private health fund is actually paying for all of his medical expenses. Where does that fit in with workers compensation? I am also aware from some of the retired miners in Ipswich that, if they go to their GPs, they are being asked whether or not it was a workplace injury. They are being told that Medicare cannot pay for X-rays, et cetera. How can we fix that gap? They were former coalminers. They were working for collieries such as Southern Cross, Box Flat, Rhondda and many other well-known collieries around Ipswich. They are doing the right thing, but they are still falling through the cracks. How would you suggest that that be fixed?

**Mr Roche:** Chair, I refer to page 2 of the letter that we tabled, paragraph 3. I will read it again—

The QIC also believes that concerned retired workers should be able to have screening tests such as X-rays, CT scans and reviews by respiratory specialists and that industry should also fund this through the existing scheme.

So, yes, it would be a change to the scheme. That is why we have called it out.

**Ms Bertram:** That is one of the gaps that we are acknowledging through evidence such as Percy Verrall's and some of the other victims, as well.

**CHAIR:** Percy has been waiting 11 months, but nothing has happened.

**Ms Bertram:** Yes. We have acknowledged that the workers compensation scheme is failing some of these people. That is what we are seeking through this process, to identify the gaps and to try to develop a process where these sorts of cases can be accommodated.

**CHAIR:** What is your view in relation to the failure—the abject failure—of the radiologists, to pick up CWP?

**Mr Roche:** I am on record as having some strong words to say about that. I understand that they are coming before this committee today; is that right? I would hope they have moved on from what seemed to be a state of denial to one of working with government and with the departments to fix any gaps in terms of the local expertise. I have heard the college speak of the fact that radiologists were reviewing X-rays without knowing that they were X-rays of coalmine workers. Having spoken to coalminers and victims of CWP, they say that is absolute rubbish. They are one part of a problem and they have to be an important part of the solution. It has been a necessary measure to give confidence to the workers to have to send these new X-rays. All current X-rays under the scheme are going off for a second read. We support the second reading process. However, isn't it a bit of a blight on our own system that we cannot trust our local specialists, but we have to get that second reading done by the University of Illinois?

**CHAIR:** Thank you.

**Mr SPRINGBORG:** I have a follow-up question on that. I agree with you absolutely about outsourcing as we could read it competently in 1984 with what was relatively modest technology compared to what we have today. It is quite extraordinary. I note, Mr Roche, you mentioned that the workers themselves say it is absolute rubbish that the radiologist does not have the background before they read the X-ray. Why do they say it is absolute rubbish?

**Mr Roche:** I have spoken to workers who have had X-rays and their view is that the people dealing with them know—

**Mr SPRINGBORG:** That they are coal workers?

**Ms Bertram:** Know why they are there.

**Mr SPRINGBORG:** That is interesting. I needed to get that on the record. There are lots of excuses going around; thank you.

**CHAIR:** There is also evidence that there are a number of workers who are being treated for pneumonia, asthma and other diseases, as well, but the medicos have not even asked them where they have worked, even though they have volunteered the information that they have been underground miners or open-cut miners.

**Mr Roche:** It is an almighty wake-up call for so many of us.

**CHAIR:** Yes, that is right.

**Mr KNUTH:** Michael, you said that you were alarmed when you read that black lung was re-identified. The act points out that the employer must ensure health assessments are carried out for each person who is to be employed or is employed by the employer as a coalmine worker for a task other than low-risk tasks. It also talks about it being otherwise periodically, as decided by a nominated medical adviser, but at least once every five years. When labour hire companies bring workers into the coalmines, some of those workers work underground and are exposed to this dust. Can those workers possibly miss out on the opportunity to have X-rays and health assessments? Has that been spoken of in the industry that you support?

**Mr Roche:** Perhaps I can take it in two parts and Ms Bertram can chime in. Anyone working on a coalmine has to have a current medical. You swipe in and if it says that your medical is out of date then you do not come on to the site. That applies to anyone coming onto the site, whatever their employment status. I would be really concerned if there was any suggestion that someone going through labour hire, contractors or whatever did not have a current medical on that five-year cycle. Industry wrote to the minister in July 2016, committing to offering to concerned workers the opportunity to have more recent X-rays re-read or X-rays that were two years or older done again. That process is underway. My understanding is that that offer is being made to workers irrespective of their status. What is of concern is that anecdotally we are hearing that some workers are not taking up that opportunity. They are putting a lot of emphasis on their employment security and income security versus knowing what their health situation may be. That is their right, but, of course, they will eventually have to have their scheduled medical to continue in the industry. Hopefully, I have covered the different angles there.

**Mr KNUTH:** I know a number of labour hire workers who have worked in three or four different mines and been exposed to coal dust. How can they be monitored by each company that they work for, when they need the check-ups every five years? Is there a potential that they could fall through the cracks so that those employees do not have the opportunity for the medical assessments in that five-year period?

**Ms Bertram:** With the new process that is being put through the amended regulation, the ability to compare old X-rays with new X-rays is going to represent a significant improvement for workers such as those who are working short-term with different employers.

**Mr KNUTH:** If you have an employee who works for one particular company and he has been there for five years, he is obligated to have an X-ray. How does that work for a labour hire employee who has worked for three different companies, two years here, one year there, two years there? Does he still have that opportunity?

**Mr Roche:** In fact, taking it to the other extreme, we spoke to somebody very recently who worked for contracting or labour hire—I am not sure which—and there were eight different employers, all in a contracting sort of role. As that worker went to a new mine, part of the deal was getting a new entry medical. Some workers are actually getting their medicals much more often. This particular worker had lots of X-rays, but none of them detected a CWP condition until very recently, in 2016. That worker told QIC that, when they went back and looked at a 2007 X-ray, the condition was there to be found. I do not think there is a problem about how many X-rays are being done; it is about competently reading the X-rays and detecting what is there to be detected.

**Mr KNUTH:** I caught up with a retired miner who had been in the workforce for over 30 years. He is starting to cough and he is quite concerned about that. Obviously he is a worried and he has talked about other old miners who are feeling the same way. At the same time—and you probably understand their circumstance—they feel that if they do go to the GP it is going to be bad news. In regards to the Resources Council, is there a policy of encouraging the mining companies to more or less enlighten or get some sort of campaign going to encourage those who have been working in the mining industry for more than 30 years and have retired to have medical assessments?

**Mr Roche:** I totally agree with your proposition. I understand a number of companies are doing that where they have information about where retired workers now live. The mines department has been pumping out information. I think one of the strongest mechanisms will be through the GPs, so we need to get information to the GPs. The state government has sort of a hotline approach as well that is available, so I am sure there is more that can be done but I have to say that we are trying to get that message out. At the end of the day we cannot force a worker, retired or otherwise, to go and take that medical—that screening—other than when they need a current medical to continue to work.

**CHAIR:** Thank you, Mr Knuth. I want to follow up one issue that you spoke about before in your evidence, Mr Roche, which was about miners in that they might want to keep going because of the level of remuneration that they get in the industry et cetera. One of the propositions that I just wanted to put to you would be about a miner, say, in their 20s or even 30s and they are diagnosed with CWP which means that they might not be able to work in a mine again. At the moment what happens with that miner?

**Mr Roche:** Hopefully any diagnosis of CWP is caught early which means that they are not likely to, in the immediate term, be assessed for impairment. Again, what we have said in the letter that we have tabled is that there is that category of worker that we believe may need some improvements in the process around a claim for loss of earnings and that should not in any way prevent them from subsequently bringing a claim for impairment if over time their condition deteriorates to the point where it is triggering the impairment section of the scheme.

**CHAIR:** If they have to leave the industry, for example, they would get like a lump sum payout. Is that what you are suggesting?

**Mr Roche:** Something, yes. Again—and take a look at the letter—we have called out that particular circumstance as something where, in our view, there is a gap in the scheme.

**CHAIR:** The other issue I wanted to ask you about is the lack of information between the mines department and the Mines Inspectorate and the health department, including the hospital and health boards. For example, we have no information coming through the health system as to how many people with CWP are actually being treated within the public hospital system, although we do have some information about private patients. How do you suggest that we capture all of that information?

**Mr Roche:** Minister Lynham did, earlier this year I understand when he was acting health minister, get some data pulled out of the public health records. Correct me if I have this wrong, Judy, but I think one of the issues that came out of that information was there was not a lot of confidence in the precision of the coding of the condition for which a patient may have been treated in the public health system. We would need to sharpen up the ability of public hospitals and private hospitals to be able to pinpoint the condition they are treating so that there are better information flows from Health, workers comp, mines department and industry.

**Ms Bertram:** I think the move to make it a reportable disease as well will certainly help.

**CHAIR:** But it will be reportable to Mines.

**Ms Bertram:** Yes, so I think through the system it will become at least more visible.

**CHAIR:** Yes, but it will be reportable to the mines department, not to the health department and none of them talk. They are all in silos; they do not talk to each other, do they, Lawrence?

**Mr SPRINGBORG:** No.

**CHAIR:** That is the evidence we have before us.

**Mr SPRINGBORG:** They have probably reported it now, but they stuck it in a box.

**CHAIR:** And we do not know where the boxes are either.

**Mr Roche:** Yes, there is some of that. I encourage you to make observations or recommendations in that space. I think there is more communication going on now than there was even 10 years ago, but we have a way to go.

**CHAIR:** I now go to Mr Jim Pearce, the member for Mirani.

**Mr PEARCE:** Mr Roche, this is probably your last hearing today. Did you have to—

**Mr Roche:** Unless I accidentally find myself before one of these committees in my future roles, yes, that is my hope.

**Mr PEARCE:** I should say that you should not rest in peace that you will not be called back. I have a couple of questions. With regard to the self-insured, how many of the companies within the QRC are self-insured?

**Ms Bertram:** I think it is two.

**Mr PEARCE:** So everyone relies on WorkCover Queensland?

**Ms Bertram:** My understanding is that other than the two they are all under WorkCover.

**Mr PEARCE:** Two that are not?

**Mr Roche:** Yes. Everyone is under the workers compensation scheme. Two have their own self-insurer and the rest are under WorkCover. That is our understanding. If I could add if it helps, the workers compensation scheme regulator looks over the lot, whether you are a self-insurer or WorkCover, and has the ability to review decisions made by the insurers and conduct audits.

**Mr PEARCE:** Just to make sure I have it right, your understanding is that there are only two companies that are self-insured but they—

**Ms Bertram:** We could confirm that.

**CHAIR:** You will take that on notice?

**Ms Bertram:** Yes.

**CHAIR:** I think we have had that evidence before us.

**Mr Roche:** Chair, if it helps, I can table the Office of Industrial Relations fact sheet which calls out the self-insurers. There is a third, but they do not operate in the coal industry in Queensland.

**CHAIR:** Okay. Is leave granted for that document to be tabled? Leave is granted.

**Mr PEARCE:** The next question I want to go to is the nominated medical advisers. Could you, for the benefit of the committee, explain what the process is for a worker injured or sick where they interact with the nominated medical advisers? What is the requirement for a sick or injured worker to be involved with those medical advisers?

**Mr Roche:** I am not sure that we are competent to give you deep insights in terms of those situations. Maybe that is one that we can take on notice, Chair, and provide you with some more information. We are happy to do so.

**CHAIR:** Yes, that is fine.

**Mr PEARCE:** I have some concerns that the companies themselves rely too much on the process where their workers who are injured or sick must process themselves through the nominated medical advisers. In your response could you also give us information on the different levels of advisers that are used? You might have a normal GP and the next one might be a physiotherapist or you might have a specialist that they have to come to just so we have a good understanding. It is common knowledge across the industry that mine managers have lost the respect of workers because of pressure that they are under to continue working in hazardous or dusty workplaces. Where a worker objects or refuses to carry out work in one of those situations, they then become a targeted member of the workforce where they suffer from harassment and eventually find their way to the top of the line where they are dismissed. How does the QRC deal with that morally? Are you aware of that happening or are you just sort of prepared to not know it is happening at all?

**Mr Roche:** Mr Pearce, I would be very happy to receive your evidence—your documents—about that. That is something we would obviously have to take very, very seriously, so I would encourage you to forward that information to myself if you are not confident in providing it to the companies concerned.

**Mr PEARCE:** Yes, that might be the case. I just wanted to make sure whether you yourself or the QRC are aware of these sort of behaviour patterns across the industry. There are times when I speak to workers who are quite intimidated by the actions taken against them by mining companies at a mine site simply because they are prepared to stand up for themselves and their mates with regard to safety, and the issue is there. It is one of those issues that I have been going on about in terms of the way that workers are treated. I have been going on for years and years and it does not change. I would have thought that the QRC would be aware of that, but I will take your point. If an injured or sick worker goes to a nominated medical adviser, is that information then passed back to the company?

**Ms Bertram:** We get caught up again in this private medical information, the privacy issues.

**Mr PEARCE:** I am aware of situations where a lot of medical advice is not kept private because there is a close connection between the nominated medical adviser simply because they are employed by the company and the way workers are treated as they go through the process. I do not know how you are going to be able to find anything to come back to me on that, but it is just one point

that I wanted to make. I will move to my last question. The selection of NMAs is at the discretion of the mining company's contracted labour hire firm, so how do we know that we are getting the best possible people to do these jobs, to do this work—look at our workers, report honestly and make sure that they get moved on to the right treatment? Are we sure that all of the information is coming through back to the mining company?

**Mr Roche:** Yes, you are touching on one of the areas of recommendations from the Monash review. They have recommended some different processes around appointment of NMAs, the number of NMAs, the training and industry knowledge of NMAs and we certainly support those recommendations. To the extent that what you are describing as concerns about the past, then Professor Sim and his colleagues have made similar observations and recommendations to fix those deficiencies are part of the implementation work by the department.

**Mr PEARCE:** That is good, but in this industry we should not be looking at how to fix this sort of a problem. We should be in a situation where we do not have the re-emergence of black lung. Thank you, Chair.

**CHAIR:** Thank you very much. I think what the member for Mirani is trying to say is that there are many coal workers who have lost confidence in the NMAs as well. Certainly when we have a situation where we have evidence before us that there is no thoracic specialist in the Central Queensland coalfields and there is no thoracic specialist employed by the public hospital or the private sector in Mackay or Rockhampton, to us as members of parliament that is simply shameful. Even if the NMAs recommend that a miner go to a thoracic specialist, there is no-one available locally. I now go to Ben McMillan.

**Mr McMILLAN:** Thank you, Chair. Mr Roche, you made reference in your evidence earlier today to the requirements for a current medical assessment, including workers recruited through labour hire firms. Are you familiar with the evidence this committee has already heard about the difficulties with the current health assessment form and the absence frequently of the employer section of that form being completed? Have you familiarised yourself with that evidence that has already been received?

**Mr Roche:** I am certainly familiar with the observations along those lines in the Monash review.

**Mr McMILLAN:** A number of workers have given evidence to this committee in relation to being required to have a pre-employment medical assessment done in order to obtain work through labour hire companies. It follows in my estimation that where the person does not have a job or a job offer at that stage it is simply not practical to expect that a prospective employer has completed the relevant section of the form. Do you accept that?

**Mr Roche:** Particularly through the boom years, there were many people who went and got pre-employment medicals at their own cost as a way of positioning themselves for job opportunities. What you are describing are just the facts when someone does not have an employer.

**Mr McMILLAN:** The committee heard evidence on Wednesday from a respiratory physician who essentially said—I am paraphrasing his evidence—that the medical assessment is meaningless in the absence of proper risk assessment information provided by the employer. My question to you, as the peak body for this industry, is: has the process of the medical assessments under the existing regulatory regime failed its workers in that it fails to ensure that they are properly risk assessed before they are medically assessed?

**Mr Roche:** I think they have been risked assessed, but what we do support are the observations and recommendations in the Monash review to improve those risk assessments, improve the forms, improve the whole process. We are not here to defend what has been happening in the past. We encourage the committee to get behind the Monash recommendations and ensure that they are being implemented.

**Mr McMILLAN:** How it is that you say that a worker has been risk assessed if the employer does not complete their section of the form?

**Mr Roche:** I am not aware of—where there is a worker with a current employer, I cannot imagine that situation occurring. There can be someone seeking employment in the industry who at their own cost would go and seek a medical to position themselves to take advantage of a job opportunity and therefore there is no employer. I do not know whether you have anything to add, Ms Bertram?

**Ms Bertram:** I think it is an historical practice that had fallen down, as was shown in the Monash report. In some instances the companies thought the doctor would ask questions as part of the medical assessment process like, 'Where are you working? What is the nature of your role?' We

have also been told that there was a process or a practice that was emerging that if you were an underground coal worker then you would actually do an X-ray—that, irrespective of what was written on the form, you do then get the highest order of screening.

**Mr McMILLAN:** Under the existing scheme—and I understand that there are changes proposed to commence next year—is it possible for a worker to obtain employment as an underground coalminer in one of your member companies after a pre-employment medical screen that does not have any risk assessment information provided by the prospective employer?

**Mr Roche:** It is almost tautological, isn't it, Mr McMillan? If someone is entering the industry—I think we are going around in circles. There are people who can present to a potential employer who have gone and got, of their own volition, a pre-employment medical, but there is no current employer.

**Mr McMILLAN:** Does that employer require a further medical assessment with the completed risk assessment information before they give that person a job?

**Mr Roche:** I would have to confirm what happens in those situations.

**CHAIR:** Can you take that on notice?

**Mr Roche:** Yes.

**Mr McMILLAN:** Does the QRC provide any support to its members in terms of quality assurance or auditing of their safety management systems?

**Mr Roche:** No.

**Mr McMILLAN:** What information does the QRC receive from its members about their safety management systems and their compliance with regulation?

**Mr Roche:** It is not our role.

**Mr McMILLAN:** Is that none? Is the answer to my question none?

**Mr Roche:** It is not our role.

**Mr McMILLAN:** You provided a submission to the Senate select committee dated 26 February this year. I note that at this stage the QRC has not provided a written submission to this committee.

**Mr Roche:** We will be providing a written submission by the due date.

**Mr McMILLAN:** In your submission to the Senate select committee you, Mr Roche, made a number of statements that I want to take up with you. The first is that on page 3 of that submission you wrote—

Exposure measures are assessed for compliance against the limit specified in regulation, and results are made available to the workforce.

What was the source of your information for making that statement?

**Mr Roche:** Advice from our member companies and the facts—those results are posted at mine sites for workers to review them.

**Mr McMILLAN:** How do you know that?

**Mr Roche:** I have been in crib rooms.

**Mr McMILLAN:** So you have personally seen those results?

**Mr Roche:** I have personally seen them.

**Mr McMILLAN:** Similarly, in the next paragraph you wrote—

In the case of some companies, much lower compliance limits are set.

Again, what was the source of your information for that statement?

**Mr Roche:** Talking to our companies—that is what we do.

**Mr McMILLAN:** If the company tells you that they are doing something, you then accept that and then report it to a Senate select committee as fact.

**Mr Roche:** We have a trusting relationship with our member companies. That is exactly right.

**Mr McMILLAN:** On the final page of that submission, you noted that, with reference to the coal workers' health scheme, the scheme is 'not broken' and then made reference to 'alarmist comments to the contrary'. I note that in your opening statement today you described that scheme as an abject failure. Do you accept that your statement in February this year was incorrect and ill-advised?

**Mr Roche:** We have learnt a lot since the Senate inquiry, haven't we?

**Mr McMILLAN:** Is that a yes?

**Mr Roche:** I said we have learnt a lot since the Senate inquiry. The whole focus of the health scheme was part of the consultation regulatory impact statement process conducted by the Queensland government, the mines department. At the time—I think back in about 2013—the department was recommending a shift in focus of the health scheme from fitness for work to issues around worker health. We supported that shift in focus. It was, in fact, the CFMEU in its submission which said that the scheme was not broken. We had no idea at that stage the sorts of failings that were occurring in the respiratory component of the scheme around spirometry and radiology.

**Mr McMILLAN:** Do you regret describing comments to the contrary as 'alarmist'?

**Mr Roche:** I make comments as I see them on the basis of the knowledge that I have at the time. I am sure that there are statements I have made in 11½ years of being Chief Executive of the Queensland Resources Council which have been overtaken by events. I accept that in this case we have learnt a lot more.

**Mr McMILLAN:** Mr Roche, you made reference in your evidence to a dust control workshop that was contributed to by all of the eight companies that currently operate underground mines in Queensland. Were there documents or training materials produced as part of that workshop?

**Ms Bertram:** There were presentations given. The individuals who presented have certainly shared their names and contact details for further communication with the members of the dust workshop.

**Mr McMILLAN:** When did that dust workshop occur?

**Ms Bertram:** On 19 October.

**Mr McMILLAN:** Is the QRC in possession of the documents that were produced as part of that workshop?

**Mr Roche:** There were presentations that were shared on the day. We are hoping that there will be some sort of overview document that can be shared with the industry. This is about improving practices at coalmines.

**CHAIR:** Mr Roche, has the Queensland Resources Council or its member companies or have you or anyone else apologised to coalminers for CWP?

**Mr Roche:** We certainly take our share of responsibility for what has happened. I have put that on the record. I put that on the record again. It is not my job to apologise on behalf of the Queensland Resources Council, but we are one part of a larger industry which continues to operate under the assumption that coal workers' pneumoconiosis was a condition of the past. We take our share of that responsibility, along with all of the other parties—the medical profession, the regulators, the unions and ourselves.

**CHAIR:** Mr Roche, we wish you all the best in your future career. Thank you very much.

**Mr Roche:** Thank you.

**CHAIR:** I would like to remind everyone that today we will be observing one minute's silence at 11 am to mark the 98th anniversary of the armistice to end the First World War and in memory of those who died or suffered in all wars and armed conflicts. My understanding is that around 11 am we will be interrupted by a bell or some notification that we will stop for one minute. Then I will ask everyone to rise and we will observe one minute's silence.

**FOOT, Ms Bobbie, Head, Health, Safety and Environment, BHP Billiton Mitsubishi Alliance**

**McDONALD, Dr Robert, Vice President, Health and Hygiene, BHP Billiton**

**CHAIR:** I now welcome representatives from BHP Billiton. For the record, could you please state your name and the capacity in which you appear before the committee?

**Dr McDonald:** My name is Rob McDonald, not Bob McDonald, for the record. I am Vice President of Health and Hygiene for BHP Billiton, based in the Melbourne head office.

**CHAIR:** Does that only include Australia?

**Dr McDonald:** It is a global role.

**Ms Foot:** My name is Ms Bobbie Foot. I am the Head of Health, Safety and Environment for BHP Billiton Mitsubishi Alliance, covering the coalmines in Queensland.

**CHAIR:** Is that only for coalmines in Queensland?

**Ms Foot:** That is correct.

**CHAIR:** Would you like to now proceed with your evidence?

**Dr McDonald:** My name is Dr Robert McDonald. I am BHP Billiton's Vice President for Health and Hygiene. My colleague Bobbie Foot is Head of Health, Safety and Environment at BMA—our largest coal joint venture in Queensland. I thank the committee for this opportunity.

Like everyone in the Queensland coal industry, BHP Billiton was deeply disappointed to learn of the first diagnosed cases of CWP for decades. This is a very serious issue and requires a collective response by industry, government and the health system. BHP Billiton will actively and strongly contribute to this effort. To that end, we support the work of this committee in seeking to prevent further cases and ensure those affected by this disease receive the support they need. We understand from the committee secretariat that company executives may be invited to appear before the committee at a later stage. BHP Billiton welcomes the opportunity to provide further assistance.

We have been mining coal in Queensland for more than 50 years. Our operations include nine mines—seven owned by BHP Billiton Mitsubishi Alliance, BMA, and two owned by BHP Billiton Mitsui Coal. Only one of our BMA mines, Broadmeadow, is underground. BMA also owns two other mines that are in care and maintenance and the Hay Point Coal Terminal.

The health and safety of our people is integral to everything we do. There is nothing more important than that every one of our workers goes home safe and well at the end of every day and also into their retirement. This applies regardless of whether it is an operational safety matter, such as vehicle interactions, or preventing latent onset disease.

In that context, BHP Billiton is very concerned that we now have three confirmed cases of CWP in our own workforce. Two of the affected employees have worked underground and one is a long-term open-cut miner. The diagnoses are of great concern to employees, to their loved ones, work colleagues and to BHP Billiton. Fortunately, in all three cases we are advised that the diseases have been picked up early. This means that minimising further respirable exposure will minimise any further health impacts.

At this stage, each of the three employees have expressed a desire to continue working and, guided by advice from independent medical advice, we are focusing on working with those individuals to enable this to happen. As you would expect, we are also covering all relevant travel and medical costs, providing access to 24-hour counselling services through EAP for themselves and for family members.

We recognise that our workforce is concerned as well. We have offered independent health reviews and new chest X-rays to all of our current underground employees and to our open-cut employees if they have concerns about historic dust exposures. We have also made support services available to former workers so they can access medical assessments free of charge.

BHP Billiton has had an active program for monitoring and managing dust exposure at our sites for many years. In 2012, BHP Billiton adopted a company-specific coal exposure limit of two milligrams per metre cubed, which is significantly stricter than the Australian regulatory limit, including here in Queensland. Consistent with best practice, this limit is subject to periodic review using the latest scientific information and we are in the process of reviewing our standard presently. We monitor dust exposures using appropriate international and Australian standards. Our dust controller

monitoring programs have evolved over time, as our understanding of the risk, technology, personal protective equipment and monitoring capability have all improved. We continue to look for new and better ways to manage this risk.

We submit to the committee that we would support a review of the current regulatory limit of three milligrams per metre cubed. We would be happy to provide any assistance based on the experience that we have developed through our own internal reviews. We recently wrote to the committee to extend an invitation to one of our mines to see firsthand the dust control measures that we have in place and to engage directly with our workforce.

The second issue that we wish to raise for your consideration is the need to plug an important information gap, which is restricting the industry’s ability to manage occupational diseases such as CWP. When a nominated medical adviser completes a health assessment form, the only information provided to employers is whether the worker is fit for work or not and whether any work restrictions apply. Employers receive no diagnosis made by the NMA. This is a critical gap in the system. It means that we are not able to offer appropriate assistance to our employees or, importantly, identify whether there are further measures required to prevent or mitigate dust exposure. Of course, the provision of such sensitive information would need to be accompanied by appropriate privacy restrictions.

The third matter that we would like to draw to the committee’s attention is the workers compensation scheme. We would like to advise the committee that we have requested that the Queensland Resources Council form an industry steering committee to review and recommend changes to the scheme to enable it to better respond to CWP. As the committee is aware, BHP Billiton also intends to lodge a written submission to the inquiry. Like our evidence to you here today, our submission will emphasise our view of the need for action in three key areas: reviewing the current regulated exposure limit of three milligrams per metre cubed; improving the statutory workers compensation scheme; and providing employers with important medical information, including mandatory reporting of diagnoses, whilst respecting privacy requirements.

BHP Billiton wants the state’s coal industry to continue to thrive, but it must do so safely. It has been a vital part of Queensland’s economic and social fabric for more than 50 years. We are committed to working cooperatively with our workforce, our communities and the Queensland government to make sure that this happens.

**CHAIR:** Thank you very much, Rob. Can you tell us, please, what your specialty is?

**Dr McDonald:** I am an occupational physician. I am a fellow of the Australasian Faculty of Occupational and Environmental Medicine.

**CHAIR:** Thank you very much.

**Mr SPRINGBORG:** Ms Foote and Dr McDonald, welcome and thank you for assisting the committee. How long have you held your position as the worldwide vice-president of occupational health and hygiene for BHP Billiton?

**Dr McDonald:** It is six and a half years.

**Mr SPRINGBORG:** In your six and a half years, you would have become aware of other cases of CWP within mines that have been owned or operated by BHP Billiton worldwide?

**Dr McDonald:** Prior to 2015, we at BHP Billiton had not seen any cases of CWP either in the Australian workforce or in locations overseas.

**Mr SPRINGBORG:** Do you operate mines in the US?

**Dr McDonald:** Yes, that is correct. I would need to take on notice the details, but there is a mine that is close to being handed over—being sold—but there is one underground mine that is there and there was an open-cut mine, which has now been sold. We had not seen, prior to 2015, any cases of CWP in that workforce.

**Mr SPRINGBORG:** Yet we have seen information presented to this committee during the course of its evidence where, in the US with regard to occupational health studies of its workers, variously there have been rates of up to 11 per cent, falling away to two per cent and, more recently, up around 11 per cent. You are saying, with regard to the mines that you are responsible for overseeing in the US, there was not that sort of epidemic or endemic issues with regard to CWP or other dust diseases?

**Dr McDonald:** Yes, that is correct. I think it is important to understand that, in the United States, that increase in CWP that has been seen is largely confined to the Appalachian region in the United States. That region is dominated by very small mines. Frequently, fewer than 50 people operate those mines. The other key aspect of those mines in the Appalachian region is that the coal seams are

frequently much smaller—possibly only four feet in height—compared to the much larger seams that we have in the Australian context. That means that, in order to access those coal seams, there is a need to cut through a considerable amount of rock and that rock is associated with silica dust exposure. It is really important, I think, for the committee to understand that, when looking at CWP, particularly in the American context, there are some significant differences in terms of the nature of the work, the nature of the seams and the nature of those exposures.

**Mr SPRINGBORG:** You are saying that it is a type of silicosis that those workers have rather than black lung, which is more of an American description of coal workers' pneumoconiosis?

**Dr McDonald:** I think it is likely to be a mixed dust disease—a combination of silica exposure and coalmine dust as well.

**Mr SPRINGBORG:** Again, you are not aware of circumstances in those mines that your company is responsible for operating in the US of any incidence of coal workers' pneumoconiosis, or black lung, prior to 2015? You had no awareness?

**Dr McDonald:** That is correct.

**Mr SPRINGBORG:** Okay. Your company has adopted two milligrams per cubic metre—I think you said metre cubed; that was your way of saying it—with regard to dust over an eight-hour period. You obviously did that for a reason. One would think that you did that on an evidentiary basis or did you do it pre-emptively based on your concerns that it was better to get in ahead of the pack? Given that medical specialists and professionals tend to deal in an evidence based world, you must have had a reason for wanting to adopt that standard. What was it? Were you becoming concerned about an elevated level of presentations with dust related diseases in your industry? What was the reason?

**Dr McDonald:** We consider the potential exposure to airborne particulates to our workforce as being one of our most important health risks. One of the most important controls in place is setting an appropriate occupational exposure level that provides sufficient protection. To that end, we have a process of continuously monitoring the science, looking to see what publications are coming out that might indicate a new risk, or a new appreciation of risk. We are continuously monitoring the regulatory agencies globally to see whether they are proposing any changes. We are also regularly benchmarking with our peers to see whether they may be implementing changes and to understand why.

Back in 2012, we became aware that the US Mine Safety and Health Administration was considering a review of its coalmine dust OEL, which, at that point in time, was two milligrams per metre cubed. That was a trigger for us to develop our own internal analysis. When we looked at the evidence that was underpinning the US MSHA review and its decision, there were two main drivers that they were seeing: the first was that they starting to see, as you mentioned before, the increasing rates of CWP in the industry. The second issue that was raised was the concern associated with chronic obstructive pulmonary disease, which is the other lung condition that can be associated with coalmine dust work.

When we looked at the US situation, as I mentioned before, we saw some key differences in terms of the development of CWP in terms of silica exposure and some other aspects. We also had confidence at that time in the existing health surveillance scheme within Australia, where we were not seeing any case of CWP occurring. In fact, we did not reduce it because we felt that there was a risk of CWP to our people; however, there did appear to be a risk of chronic obstructive pulmonary disease at exposures of three milligrams per metre cubed. That is more difficult to pick up through a surveillance program. For that reason, really on precautionary grounds, we decided to reduce our exposure limit to two.

**Mr SPRINGBORG:** You mentioned publications that enlivened your concerns but principally, based on what you have said, you were looking at what the regulators were moving to do in the US?

**Dr McDonald:** That was the trigger that initiated a literature review. I failed to mention that there were two key areas where there is good evidence to inform risks of CWP and COPD. One is in the US. The other is in the UK. There is some good information that has been published in terms of the levels of CWP that we have seen in the coalmining industry in the UK. We looked at both of those sources of information to inform our risk assessment and decisions.

**Mr SPRINGBORG:** Do you have descriptions of those sources of information? Would you be able to give us identification of those references?

**Dr McDonald:** I would be happy to share with this committee those key references that we have utilised. As I said, we are very keen to work with the right people to share our experiences.

**Mr SPRINGBORG:** We will invite you to pass on that information to us. Given that, I understand, the United States regulators have now moved to adopt a level of one milligram per metre cubed, to use your terminology, does BHP Billiton intend to look at that and pre-emptively itself move towards one milligram per cubic metre?

**Dr McDonald:** Just as a point of correction; I think they have moved to 1.5 milligrams per metre cubed.

**Mr SPRINGBORG:** I take that.

**Dr McDonald:** As I said in my opening statement, in terms of continuous improvement and good practice, we periodically review our OEL and we are in the process of doing so at the moment and in particular, obviously, taking into consideration the recent identifications of cases locally.

**Mr SPRINGBORG:** You are actively considering that now based on what they have done? You may move towards that at some time in the not-too-distant future?

**Dr McDonald:** We are absolutely reviewing the evidence and reviewing our position.

**Mr SPRINGBORG:** I have a couple more questions. One goes back to my first question with regard to mines that your company owns or operates in external jurisdictions to our shores. Would we be able to have a list or a description of those one or two mines that you mentioned in the US?

**Dr McDonald:** Yes. On record I can provide you with details of those two mines. As I said, there has been a sale process that has been going on for a period of time, but yes.

**Mr SPRINGBORG:** Thank you very much. One of the issues that we have, and which I mentioned earlier with regard to Mr Roche and his colleagues from the Resources Council, is this absolute disconnect between the requirement to do certain things and putting all the pieces of the puzzle together, which has led to the tragedy of people falling through the gaps and in particular with regard to the role of the nominated medical adviser. We have heard lots of concerns with regard to the competencies and the training and how that information is then taken, assessed and reported back. Would there be an expectation with regard to the nominated medical adviser, given the relationship between them and the respective employer that, if there were a serious case of dust disease, including coal workers' pneumoconiosis, one would expect that that would be reported back to the employer with appropriate privacy consideration given the fact that the employer has a role in appointing a nominated medical adviser for the critical circumstance of understanding the health of their workers individually, or the entire workforce?

**Dr McDonald:** My understanding of the current situation, where we have three workers who have been diagnosed with CWP, is that the nominated medical adviser, with the consent of that individual, provided the information through to our operations. That enabled us to put in place the type of care and support we think is necessary. Through obtaining that consent we have been able to link them up with our health advisers for regular follow-up, and our general managers of the respective sites have had the opportunity to do so. In those circumstances, yes, we have been able to be advised of those diagnoses and provide that necessary support.

The issue may well be that some earlier changes may be being identified, possibly some minor spirometry changes may be being identified, so it is not actually a diagnosis as such. That is where we think it is essential that we get the appropriate level of feedback associated with our workforce so we can do, if necessary, the appropriate investigations, review controls and make sure there is not any additional impact.

**Mr SPRINGBORG:** Notwithstanding the deficiencies which we are identifying in the current system of reporting and discovery and all those sorts of things, it would have been a pointless exercise in the past if you had had an NMA who was working apparently in the best interests of the employer and the employee if something had been identified which was of a serious nature such as CWP or another dust disease that was developing, if that had not been discussed between the NMA and the employee and reported back to the employer. It would have been a pointless exercise, would it not?

**Dr McDonald:** I am sorry, can you—

**Mr SPRINGBORG:** What I am saying is that we hear the issue of patient confidentiality. Notwithstanding patient confidentiality, it would have been a pointless exercise if there had been a discovery of a dust disease or coal workers pneumoconiosis and it basically had just sat with the NMA—and there is no real evidence they had even detected it or were aware of it beforehand, because of competency issues—if that had not then been in some way reported back to the employer.

**Dr McDonald:** I will attempt to answer that question.

**Mr SPRINGBORG:** If privacy had been used as an excuse not to report it back.

**Dr McDonald:** Yes, if privacy is being used and we are not being provided with that information then it is pointless. No-one is aware of it. No-one can take corrective actions. You cannot put in the right controls. You cannot put in place the appropriate support for that individual. It is really essential that there are clear lines of communication between the NMA, the worker and obviously through to—your point raised before—the health departments and relevant authorities so we can identify trends and prevent the sort of situation we are seeing here today.

**Mr SPRINGBORG:** Therefore, if there had been an identified case of CWP and the nominated medical adviser was aware of it, if that had not been reported back that would have been just an excuse—the privacy issue?

**Dr McDonald:** My preference really is to deal with the facts. I think I have put forward my position in terms of the importance of having open lines of communication.

**Mr SPRINGBORG:** What I am trying to say is: if someone said, 'They may have been aware of it but because of privacy we were not made aware of it,' that really is an excuse, given the seriousness of it. There are any number of ways that the NMA could have worked with the employee of a company to make sure that information was reported back to the company so that action could have been taken.

**Dr McDonald:** We are certainly not aware of where that situation has arisen.

**Mr SPRINGBORG:** Thank you.

**Mr PEARCE:** Are you aware of the breakdown of the NMAs that are working here in Queensland? Sixty-two per cent of NMAs are general practitioners, 12 per cent are occupational physicians, and non-specialist or medical practitioners with general registration accounted for the remaining 26 per cent. Do you think that is a creditable line-up of medical people that are actually looking at mineworkers who may be in a situation where they have pneumoconiosis?

**Dr McDonald:** What I would like to say, I think, is that we fully support the Monash recommendations, which have identified that there were too many nominated medical advisers in the system and that there was no process in place to establish minimum levels of training and competence. We fully support a review of that situation. To that end, I initiated contact with the faculty of occupational medicine, through Bob Edwards, respiratory physician, with the Thoracic Society and with the radiologists to meet together for the first time, because there was an absence of those three critical groups working cooperatively together to come up with some guidelines in terms of what we think should be the minimum standards in place for those nominated medical advisers. What I think has been missing to date is clear guidelines for those nominated medical advisers to support in the evaluation, identification, screening, diagnosis and management of those cases.

**Mr PEARCE:** So there is recognition there? You are moving on that? That is what you have just said?

**Dr McDonald:** Yes.

**CHAIR:** Can you provide us further information in relation to that? It would help us.

**Dr McDonald:** Sure. Recognising that there was not an existing working group involving those key medical specialties, I initiated contact with the president of occupational medicine through Bob Edwards. He made contact with the Thoracic Society. We made contact with the radiologists. We met in Sydney. Deborah Yates, who is here and will be presenting later, was a very key stakeholder. Once I had made the initial initiation, Deborah and the president of AFOEM, Peter Connaughton, took the running for that meeting. We met in Sydney on Friday and, I guess, agreed on the key areas of focus for that group. As a result, I believe submissions from the faculty of occupational medicine will be made to the parliamentary inquiry with recommendations. I know that the Thoracic Society has already made recommendations. There is a willingness from those three groups to be working together to support the development of a best practice health surveillance program.

**Mr PEARCE:** I am interested to know where you are on the ladder, I guess, for an old country boy to describe how companies work.

**CHAIR:** Can you tell us where you fit into the organisational chart of BHP Billiton worldwide?

**Dr McDonald:** I am the vice-president, health and hygiene. I report through to the head of health safety and environment, who reports through to the president for external affairs, who is one of the members of the executive leadership team.

**Mr PEARCE:** So it is a very responsible position?

**Dr McDonald:** I see it as being so, yes.

**Mr PEARCE:** How do you monitor or get feedback on what is happening at the local mine site level with regard to health and safety of workers? Is there something that you have in place to monitor issues that are being raised at a local mine site?

**Dr McDonald:** Yes. We have a number of different mechanisms in place in order to understand what are the key health risks that are in place and how well those risks are being managed. We use a combination of leading and lagging indicators for that process. At the one end of the stream, and probably one of the least useful, is simply the reporting of occupational illnesses. That is obviously a lagging indicator and it is not where we want to be, but that is one of the metrics that comes through from all of the operations.

The next point up, which is a really important one, is understanding what our exposure profile is. On a six-monthly basis, all of our operations are required to report the number of workers that may have exposures that exceed our internal occupational exposure levels, recognising they are frequently stricter than regulatory requirements, discounting the protection that may be in place offered by respiratory protection equipment. We have illnesses; we then have our exposure profile. We have set public targets to reduce those numbers of exposures. We have a commitment to be using engineering and other controls to reduce those exposures over time. They are some important metrics that we have in place.

The third piece that we have in place is a regular assurance process. An independent audit team on a regular basis visits our mines, visits our assets, to understand what management systems they have in place. Then they test the effectiveness of those management systems by going into the operations and sampling various risks and how effectively they are being managed. We receive regular reports on those audits. As an important part of my role, I participate regularly in those audits to make sure the audit program is working properly. That is my opportunity to test what is occurring on the ground.

I guess the fourth one is that I make it a part of my role to regularly go around to different parts of the business. This year I have probably been travelling 16 or 18 weeks of the year in order to get across to the US, to our different Australian operations and down to South America as well.

**CHAIR:** Are those reports that you have just given evidence about available to the union check inspectors? If not, why not?

**Ms Foot:** As the information is consolidated up it gets put into the sustainability report, which is actually public. At the level of the mine site, the information is provided on the notice boards. The check inspectors also have opportunity to review that on their visits to the site. For example, at Broadmeadow there have been a number of presentations that have occurred to the workforce. The site safety and health reps that are part of that committee that we have in place also see that information and it can be provided to check inspectors as they come to the sites.

**Mr PEARCE:** How do you check the accuracy of those reports that are coming through to you from a particular mine site?

**Dr McDonald:** There are two pieces that are in place. The first one is obviously the independent assurance process that we have in place. We have technical specialists from other parts of the business that go in and look at the detail in terms of how those results are being gathered, how they have been analysed, how they are being reported. That is the first part. The second part is that, with that information that goes into the sustainability report and the public record, we have an independent third-party auditor, KPMG, come in and sample some of those sites to check the veracity of those reporting records.

**Ms Foot:** I think it is also important to understand that, in terms of the monitoring, the majority of our monitoring is actually conducted by a third party. They have NATA accreditation and, as part of that, also undergo audits to make sure their processes comply with Australian standards.

**Mr PEARCE:** Do you have any knowledge or information with regard to workers who have been identified as having an illness or carrying the result of an injury through the system being targeted and sorted out to be removed from the industry by the company?

**Dr McDonald:** I am absolutely not aware of that. If that was the case, that would be the matter of the highest seriousness. If you have any information to suggest that that has occurred at any of our sites, firstly, I would be horrified. If you have information of that nature, please do provide it to us. We would take it with the utmost seriousness. We want to make sure every one of our workers is protected from whatever risks are in that work environment. We do our utmost to make sure those are effective. If one of our workers happened to suffer an illness or an injury, our commitment is to be supporting them—supporting them to return to work and fully recover.

**CHAIR:** It being 11 am, I ask everyone to please rise and observe one minute's silence.

*Whereupon committee members and all present stood in silence.*

**CHAIR:** Dr McDonald, did you want to continue or have you finished answering that question?

**Dr McDonald:** I think I have finished answering that question.

**Mr PEARCE:** It was an interesting response. We will see how we go with that one.

**Mr CRAWFORD:** How long has BHP been in the coalmining industry in Queensland?

**Ms Foot:** We would have to take the specific question on notice. My understanding is that BHP bought most of the current BMA assets from Utah in about 1984 or 1985. We will get the specifics for you.

**Mr CRAWFORD:** I am not too worried. I am quite interested in the former workers. You mentioned in your opening statement how the diagnosis of an open-cut miner was quite a surprise to you, as it was to everyone. You mentioned that you have offered all of your current underground employees screenings and all open-cut employees who are concerned medical assessments. You also said that former workers would have access to assessments and that would be free of charge. Have you actually advised former workers that that offer is on the table from BHP?

**Dr McDonald:** There are two things that are in place for former workers. The first one is that we have put in place independent medical evaluations involving an occupational physician for our retired workers. The second, as mentioned by QRC, is that information has been provided to general practitioners. We believe that if there are any concerned former workers they are going to do one of the two things. They are either going to be contacting the company—in which case we will be directing them through to an independent medical evaluation—or they will be going directly through to their GP who have been provided with information on the condition.

**Mr CRAWFORD:** Those workers themselves have not received anything from the company, it is basically GPs and doctors out in the field in case they turned up to a medical clinic, is that what you are saying?

**Dr McDonald:** In addition we have promoted that service through our existing workers, recognising that there is a network between existing and former workers to share that information.

**Mr CRAWFORD:** Such as family members and so on?

**Dr McDonald:** Yes.

**Mr CRAWFORD:** To what extent does that no-cost medical reach? If they have to have ongoing screenings and treatments, how far does that offer extend to them?

**Dr McDonald:** The initial evaluation is at no charge. It is managed on a case-by-case basis in terms of what that support would be. Obviously there is access to the workers compensation scheme and if that were seen necessary then that is where that referral pathway may well go.

**Mr CRAWFORD:** Would they be expected to pay for that up-front and then be reimbursed or would that be something that the company would deal with as it moves along?

**Dr McDonald:** At the moment that is being dealt with on a case-by-case basis.

**Ms Foot:** The assessments are free of charge for them though. There is no requirement to pay and then be reimbursed.

**Mr CRAWFORD:** Obviously my concern there is that retired workers do not always have the money to actually pay for assessments and things up-front.

**Mr KNUTH:** You mentioned the workers compensation scheme. In Australia we have workers compensation. Is there a similar compensation scheme in the US for coal workers who have black lung or dust disease or are the companies responsibility for their own compensation?

**Dr McDonald:** I am sorry, I would need to take that question on notice.

**Mr KNUTH:** In your opinion is there anything else that can be done for coal workers who have been diagnosed with dust disease here in Australia?

**Dr McDonald:** I think there are a couple of things, which we acknowledge. We see that presently there are some gaps in the workers compensation scheme with respect to being able to deal with these long latency diseases. One of the issues which Mr Crawford raised was the issue of the cost of screening X-rays or other diagnostic tests. That presently is not covered through the workers compensation scheme. If you are a retired worker trying to get access to the system you need to have the diagnosis before you can get access to the system.

Looking at the existing scheme there are some gaps. We can be doing more through the workers compensation system to address those gaps, such as screening. The other one is looking at the effective and efficient processing of those claims when they come through. To that end, we have recommended through to the QRC standing committee to look at the workers compensation scheme in order to look at those gaps and how they can be closed to make it more effective for any workers who may have been diagnosed with CWP.

**Mr KNUTH:** In the US how does the reporting work? Is it very similar to the reporting back to the department that occurs in Queensland?

**Dr McDonald:** Again, I am sorry I do not have the detailed information on the US scheme. I can take that on notice.

**CHAIR:** I would now like to go to counsel assisting, Ben McMillan.

**Mr McMILLAN:** Are the workers in your Queensland operations covered by WorkCover or are you a self-insurer?

**Dr McDonald:** We are a self-insurer.

**Mr McMILLAN:** I think Ms Foot you mentioned in your evidence earlier—and correct me if I am mistaken—that you engage an independent third party auditor to conduct dust monitoring? Is that correct?

**Ms Foot:** An independent hygiene company that conducts the majority of our monitoring.

**Mr McMILLAN:** Is that Simtars or do you use another provider?

**Ms Foot:** No, it is another provider.

**Mr McMILLAN:** Are you able to provide any information as to the metrics that you use to determine which providers you use? It might be useful to the committee to understand why you use a particular provider rather than Simtars?

**Ms Foot:** I cannot speak specifically to why this provider was selected. However, our normal process is that we would go through a tender process. There is key criteria that they need to meet. They need to have an occupational hygienist supervising their program that is certified, they need to have an appropriate training program in place for the people who are conducting the testing, they need to meet the certification and they need to work to Australian standards. All of those things are checked and considered as part of that tender process.

**Mr McMILLAN:** They are the only questions I have at this stage, Madam Chair.

**Mr PEARCE:** In terms of the independent dust monitoring, who checks them? Who audits them? They are independent and employed by the BHP, is that right?

**Ms Foot:** Yes, BHP pays them as a contractor.

**Mr PEARCE:** Who audits them? You just take whatever you get from them to be—

**Ms Foot:** I understand the question. They are independently audited as part of their NADA certification. However, as well as the third party monitoring we do conduct some internal monitoring as well, which supplements that, particularly in areas such as underground where we are conducting quite a lot of sampling. We are also taking some of our own measurements so we can actually understand. If there were any anomalies they would be showing up in that.

**Mr PEARCE:** Are you able to tell the committee how many mines have, as a result of dust monitoring, been over the limit and the company has been advised?

**Ms Foot:** How many of our mines? Is that the specific question?

**Mr PEARCE:** Sure.

**Ms Foot:** The vast majority of our exposures are actually below 1.5 milligrams per cubic metre—so half of the regulatory limit. The only area where that is not the case is at our Broadmeadow underground long wall. At that part of the mine we currently do have exposures that are in excess of that regulatory limit.

**Mr PEARCE:** So over the years all mines, particularly in Queensland, have met the standards?

**Ms Foot:** We have detailed results back to about 2005. That is the case, apart from the long wall area, for most of that. However, that was when records were digitised. Prior to that we are currently seeking out those records.

**Mr PEARCE:** Broadmeadows is the only mine in Queensland that has actually breached the required level?

**Ms Foot:** For our BHP mines, the Broadmeadow long wall area is currently above the regulatory limit. It is important for the committee to understand that we do have a mandatory respiratory protective equipment program in place to ensure that there is no risk to the health of our workers while we are getting further controls in place.

**Mr PEARCE:** So Broadmeadows is the only one that has actually breached it since 2002 or 2005?

**Ms Foot:** 2005 in terms of the actual records. I could not speak to the specifics of whether there has been any breaches at all in that time. However, our results show those other areas are under.

**Mr PEARCE:** Could you check that and make that available to the committee?

**Ms Foot:** We can certainly check that.

**CHAIR:** So you will take that on notice?

**Ms Foot:** Yes.

**CHAIR:** Thank you very much for coming in today. We will now have a 10 minute break.

**Proceedings suspended from 11.10 am to 11.27 am.**

**CHAIR:** I now welcome Dr Yates from the Thoracic Society of Australia and New Zealand.

**YATES, Dr Deborah, Thoracic Society of Australia and New Zealand**

**CHAIR:** Thank you for making yourself available, Dr Yates.

**Dr Yates:** I am a thoracic physician and I am appearing today on behalf of the Thoracic Society of Australia and New Zealand. My advice has been endorsed by the Thoracic Society Board. I am a senior staff specialist in thoracic medicine at St Vincent's Hospital, Sydney. I am an associate professor at the University of New South Wales. I have a rather long interest in occupational lung disease and, somewhat unusually, I have qualifications in occupational medicine as well as in thoracic medicine. I used to work for the central pneumoconiosis panel in the UK. As such, I was involved in the regular screening of coal worker's pneumoconiosis cases, as well as patients with other occupational lung diseases. I was attached to the Industrial Injuries Advisory Council, which in the UK is the body that accepts and revises the recommendations for compensation for occupational lung disease.

**CHAIR:** Would you like to proceed with your evidence?

**Dr Yates:** The Thoracic Society is a professional society of respiratory health professionals. It is not a college of the Royal Australasian College of Physicians, although I am a member of that, but is a specialty society. It is not a regulating or an accrediting body. However, we believe it is the peak body for respiratory health professionals in Australia and New Zealand. We have over 1,400 members in Australia and New Zealand. We are the body that is involved in producing position papers and in accrediting, along with the College of Physicians, the training of respiratory physicians. We are also involved in research and we are providing a lot of professional development for our members. We have been involved in developing the occupational respiratory and the general thoracic medicine curriculum for training at what we call both a basic position training level and after, or what we call getting the RACP.

As far as coal workers' pneumoconiosis is concerned, we are seriously concerned about the so-called re-emergence of coal worker's pneumoconiosis. We very much regret that this has occurred at all. We find it unacceptable that it should have happened. The WHO, with which we also are in contact, has a target for the elimination of pneumoconiosis by 2030. We thought that we were on the way to doing that, but we find this is not the case and we think that urgent action needs to be taken. We published a position paper on this recently in the *Medical Journal of Australia*, which is available on open access for everybody to see. I hope that the committee has had the opportunity to see that. If not, I would be very happy to provide a copy. I think that summarises our position. I am very acquainted with it because I wrote it in conjunction with some of my colleagues.

**Mr PEARCE:** You recommend it?

**Dr Yates:** I recommend it highly, yes. There is really only one thing that causes coal workers' pneumoconiosis and that is excessive coal dust exposure. We would like to make that clear from the very beginning. It is unacceptable that the levels of dust exposure that occur nowadays should be producing the disease. It is an entirely preventable disease. However, we acknowledge that a screening system is absolutely key in monitoring this. We think it is also extremely important in keeping consciousness alive about the real effects that coal dust exposure can produce upon the lung and upon the patient, as a whole.

We would like to support the recommendations of the Sim review. We have very close liaisons with the Australasian Faculty of Occupational Medicine and with the Monash University program, which we have actually been involved in research with for some years. I do not think there is a single recommendation in Malcolm Sim's review that we would in any way like to modify or change.

We also would like to bring up the issue of other lung diseases that are associated with coal dust exposure. Coal workers' pneumoconiosis is only one of a number of different lung diseases. There is diffuse dust disease fibrosis, which is a fibrosis involving the bottom part of the lungs, which is usually neglected. In addition, there is chronic bronchitis and emphysema, which is very common and is not just due to cigarette inhalation. Also, there is an association between dust exposure and the development of lung cancer. As thoracic physicians we are concerned about all of those different conditions. We think that coal workers' pneumoconiosis is of great concern, but the others are also of great concern.

I will not go through the individual details because I am sure you would like to ask me questions about the pathogenesis, the diagnosis and the treatment of coal workers' pneumoconiosis. I would like to point out that our specific recommendations, as pointed out in the position paper, were the

following: we recommend a standardisation of coal dust exposure limits with harmonisation with international regulations. When we talk about standardisation of coal dust exposure limits, we actually would like to include the whole of Australia, because dust will produce the same effects whatever state you are working in and we acknowledge the fact that coalminers will move from one place to another. Therefore, we believe that a national strategy is needed. Because of this, we think that a national screening program is necessary for at-risk workers, with the use of standardised questionnaires and the use of imaging and lung function testing. You will note that we say 'imaging and lung function testing' without specifying exactly which time type of imaging, because there are data that suggest that we are perhaps a little old fashioned in using just radiology. We are thinking that CT scanning may be the way to go.

We would like to see the development of appropriate training materials to assist all doctors—not just general practitioners and nominated medical advisers, but all doctors—towards identifying pneumoconiosis at an early stage, which is when it is preventable. We believe that a system of mandatory reporting to a centralised occupational lung disease register is absolutely essential.

We would be very happy to assist the committee and, indeed, all the other bodies that are involved in this in any way that we can, because in addition to belonging to the professional organisation we have a branch that is called the Lung Foundation Australia, which is a patient advocacy group. We very much like to support prevention rather than treatment. In the long run, we do not want to have anybody come to lung transplantation, although that has actually occurred in a couple of cases, certainly in the USA and potentially here, as well.

In conclusion, we support the inquiry into coal workers' pneumoconiosis. We would like to see coal workers' pneumoconiosis banished forever. We think that it will require continued vigilance. This is something that will need to carry on for many years. On that last note, we would also like to see the coalminer or anybody exposed to potentially dangerous dusts screened and followed from the first time they are exposed until death, because for us with a long latency disease the initial exposure will not produce anything recognisable for at least 15 years and probably longer. Hopefully, it will be longer with lower dust levels of exposure. We believe that people need to be followed all the way through until they are old, basically. Thanks very much for the opportunity. Please ask me questions. I would be very happy to answer them.

**CHAIR:** Thank you, Dr Yates.

**Mr SPRINGBORG:** Thank you very much, Dr Yates, for assisting our committee in its inquiry. One thing that we are all a bit perplexed by and struggling with is how, in this day and age of extraordinary technological advance—and you would have seen amazing things happen since the time that you first studied medicine and then went on to your specialist field—we do not seem to have the competency or the awareness to be able to detect these particular anomalies. Do you have any particular observations about how something like this may have manifested itself with regards to the issues of diagnostics and reporting, from the perspective of the professional association that you are a part of?

**Dr Yates:** Yes. I think that there are two issues here. The first one is that we, as human beings, tend to forget things if they are not on our horizon a lot of the time. Therefore, as a group we tend to be unaware of rare things. Because we had a situation 30 or 40 years ago where coal workers' pneumoconiosis and other pneumoconiosis were very common and we feel that we now no longer have this, our awareness of the disease has fallen down. I think that is one of the reasons that everybody, not just respiratory physicians, have become less conscious of the fact that this might actually occur.

In terms of diagnosis, the other thing that has happened is that we used to diagnose quite severe disease. When we saw cases, it was late and the radiological and clinical abnormalities were relatively easy to pick up. Now what we see is early disease. This is occurring all across the spectrum. It is the same for lung cancer and it is the same for early injuries. That is the way it should be. However, we have to remember that, with early disease, it is more difficult to distinguish it from other things. If you look, for example, at the causes of little spots on the X-ray, which is what you will see with early coal workers' pneumoconiosis, there are probably about 250 different things that can cause this. Therefore, our diagnostic certainty is less than it was in earlier days. What we are seeing now is not the classic changes of coal workers' pneumoconiosis; we are seeing the early things. The other point to make on diagnosis is that we are using a modality that has been in action since the 1930s.

**Mr SPRINGBORG:** You are talking about the X-ray?

**Dr Yates:** I am talking about chest X-rays, yes. Our screening program has not really changed very much since the days when one of the doyens of respiratory medicine, Charles Fletcher, implemented the pneumoconiosis screening program in southern Wales, where they did a Brisbane

questionnaire, a chest X-ray and respiratory function tests with spirometry. There is no doubt in my mind and I think on the part of the Thoracic Society that we have higher sensitivity if we employ high resolution CT scanning, if we employ more sophisticated lung function tests that have a measurement of the gas transfer across the lung, which is a measurement of oxygenation, and if we actually employ what we call longitudinal assessment of lung function. What we would envisage is a system whereby every worker had a baseline measurement, they had an accurate assessment for smoking, they had an accurate assessment of occupational dust exposure and they are longitudinally followed. Lung function does not follow a linear decline with years. It varies according to how old you are. There are predicted values in coalminers that you can use, which will pick up whether you actually have a more than rapid or rapider loss of lung function than would be expected. We would like to see a situation where we are picking people up early and actually advising them at an early stage, really before any radiological abnormalities occur.

**Mr SPRINGBORG:** You mentioned that you might be detecting these things earlier. It is probably very difficult for us to know. There would have been mixed cases going back pre-1984. You may or may not be aware of the Ratus case where those responsible for diagnostics would probably have noticed suspected confirmed cases. Is it a set of circumstances where we tend to specialise more in things now and are not generalising, but are instinctively looking out for things that may be peculiar that turn up and then chasing that down a particular course of action? If you have one, two or three millimetre opacities that show up in a standard chest X-ray or an X-ray, and we are saying that it has now gone undiagnosed because it could be any one of 200-odd conditions, what does your society recommend should be done to chase that to the conclusion of what it is? Surely that is an alarm point, in itself?

**Dr Yates:** Absolutely, yes. We basically feel that the key factor is the occupational history, because if you see someone who has a few opacities on the X-ray, you need to find out what they have been doing, you need to find out where they have been working, you need to find out what else they have been exposed to. This is something that is not generally very well done, because it is very time consuming. We think that every patient deserves a thorough occupational history and an accurate as possible assessment of dust exposure. There are now available what we call job exposure matrices, which are basically a construction of previous dust exposure limits. You can do this with a special questionnaire. You can actually do it with a computer-aided questionnaire via the telephone, which will give you an accurate—not perfect, but a relatively accurate—measurement of dust exposure. If you have a level of dust exposure that is high enough, that gives you a better knowledge of whether that particular opacity is actually likely to be due to dust or otherwise. It is not a perfect thing, but it is certainly something that could be employed. We would certainly believe that that is something that should be done. It is done in other circumstances. For example, we are looking at the use of this sort of technique for working out the risk of lung cancer in individual patients, because that is very closely related to smoking cigarettes and to occupational exposures, as well. It is true that we have become more and more specialised, but as we become more and more specialised we have actually developed relatively easy tools that can be utilised, if only they are actually implemented.

**Mr SPRINGBORG:** That is it: we tend to miss the obvious.

**Dr Yates:** Exactly.

**Mr SPRINGBORG:** What happens in the circumstance where the radiologist is reviewing images and there is something like that? There are opacities that are one, two or three millimetres across. Do we just go 'question mark' and put it in the question-mark basket?

**Dr Yates:** That is the trouble. You should not. We are a specialist society. We do not see these people. We are depending on them being referred.

**Mr SPRINGBORG:** Sure, I understand.

**Dr Yates:** If the appropriate information has not been fed to the radiologist, they will not immediately think of an occupational cause, because it is quite rare. They will think of other things. Therefore, the information that is fed through is absolutely key. Also, thoracic physicians are actually able to look further and take a very detailed occupational history and have a better certainty of diagnosis. That is something that needs to be out there with the general practitioners, so that they know that we would be happy to actually see these patients and try to assist.

I have to say that in the early stages of disease you are sometimes better off waiting to follow patients rather than doing invasive procedures such as lung biopsies. This is something which is quite widely recommended at the moment. That means you have to do a repeat examination. One of the things we were hoping would happen is: instead of having the current recommendations for chest

radiography or perhaps even for CT scanning, this could be done more frequently. Really, you may well miss things, and five years can be a long time. You can actually die of a lung cancer within five years. Therefore, if the frequency of radiology was increased, if a single opacity was noted, then that would probably improve the diagnostic efficiency.

**Mr SPRINGBORG:** We could talk more about it, but I am aware of time and how precious your time is as well. I have a couple more questions here in relation to materials that we have from your society. You go on to mention with regard to recommendations the issue of mandatory reporting, on which we all agree. At the moment we have a situation where that person is responsible, and we have heard lots of that. You are talking about a national registry being established. Does any such registry model exist that could be easily bolted on to, or would we be better off ensuring we mandatorily report that here to an agency in Queensland?

**Dr Yates:** I think there is a model which could be adapted. Having said that, one has to remember that perhaps one starts with small things before one goes further. We would certainly support notification and having a mandatory reporting. We do not accept that it cannot be the Department of Health. We think it could be wider than that, because a disease is a disease.

**Mr SPRINGBORG:** I concur with that.

**Dr Yates:** The issue of where it should go is quite important, because it does need a certain amount of, can I say, medical supervision. You need to have the impetus for that information to be reported, analysed, published, hopefully, and actually fed back to those involved on a day-to-day basis. Initially you would probably imagine it would have to be Queensland, but in other countries, for example in the UK, there is a statutory reporting of all of these cases. It goes to the health and safety executive. They publish the cases every year. It is available on the website. It is highly useful information, partly also because it shows if new cases have happened. If there is a blip in the recording of a particular disease, you can look it up and try to find out what has been going on. As always, early intervention is important.

**Mr SPRINGBORG:** Thank you very much, Dr Yates. I might lead you down the path of somewhere I would like to go. I note that I think you are heading down that particular path anyway. With regard to the statutory grunt which is necessary to get people to take notice of this, you want some form of reporting. You are working with Queensland government agencies with regard to optimal screening. I suspect that largely would be within the mines department. In terms of the radiological interpretation, I suppose, you are dealing with—the professional organisations or associations—do you believe there would be some merit, after that longwinded introduction, in having the likes of the chief health officer, that has statutory recognition and respect, responsible for the issue of such an occupational disease report as coal workers' pneumoconiosis? That lifts it to a high level of respect and also then you cover off on the issues such as professional competencies and the things that need to be done and the interactions with the various societies—rather than somebody turning up from the mines department, which does not have a natural fit, and trying to work out this sort of Mr Magoo approach to taking on the world.

**Dr Yates:** I should say, this has not been discussed in the Thoracic Society—we did not anticipate that question—but I should point out that that was sort of what was recommended in the Rathus report. It is along the same lines of reporting internationally. It probably would be much more effective.

**Mr KNUTH:** In terms of mine employees or whoever it might be who are exposed or heavily exposed to coal dust, what is your recommendation about when they should get X-rays? Every year? Every second year? Every five years?

**Dr Yates:** We think they should be X-rayed at baseline, when they first join the company. Obviously if they have been screened before it might represent a duplication, but we think they need to have the information there and if necessary they have to do it again. We believe in screening every three years. At the moment we are recommending radiology, chest X-ray and spirometry, but we would have a low threshold for moving to more sophisticated screening measures. We believe that the films should be read by an accredited radiologist with specialist expertise, according to the ILO criteria. Once this has been read, if there is an abnormality detected—if they have abnormal lung function as well and any symptoms—they should be referred to a respiratory physician. We believe that early referral is important. We do not want this to be a cost to the patient, because this can be quite a significant cost, especially if you have to travel a long way. We feel that this should be something which is covered by the employers.

**CHAIR:** You might have heard me speak earlier about the fact that there is no thoracic physician in Rockhampton and Mackay. Dr Yates, can you try and get us one, please?

**Dr Yates:** We would love to, if we could!

**CHAIR:** In your circles, through your society, please ask if someone could help us out, because we have a number of patients in Central Queensland who really need assistance.

**Dr Yates:** It sounds very much like it. I should add that we have no control over the job appointment systems in the health department.

**CHAIR:** I know, but I think the issue is that we actually cannot get anyone.

**Mr PEARCE:** I would like to understand if there is a difference with regard to risk and the structure of the lung. Are lungs structured differently in different people so that somebody might have to be in a mine for only a couple of years whereas for somebody else it might be 10 or 15 years?

**Dr Yates:** It is an interesting question. The answer is not necessarily in the structure of the lungs—we all have fairly similar lung structure—but certainly in the genetic background, to the way in which we react to outside insults. The classic example is people with cystic fibrosis. As you know, that is an inherited deficiency of a particular gene which is relatively common in the Caucasian population. These people are much less able to deal with infections—hugely different. That is analogous of a number of genetic conditions. In coal workers' pneumoconiosis there is not much that has been looked at in terms of that. There are a couple of papers on what we call alpha-1 antitrypsin deficiency. It has not been shown to be a causative factor for getting pneumoconiosis. I personally think it is a very important factor.

Individual variations I think will become more and more clear in the next 15 years with improvements in genetic processing. At the moment we have no clear way of knowing who is going to be worse than others. Some people have said that smokers would be more likely to develop coal workers' pneumoconiosis. We do not feel that it is appropriate to stop people—hopefully they will not get exposed anyway—from working in a mine if they are smokers, but we would always want them to stop smoking. We regard that as a primary problem.

At the moment there is no clear difference that we can pick up from clinical examination. The presence of atopy, which is an allergic predisposition, has always been postulated as something which might make people worse, and possibly there is something in that, but we would not advocate stopping people from working on that particular basis.

In the future there may be better evidence based ways of actually working out who are the ones. At the moment we have to rely on job exposures and the amount of dust they are going to inhale. I think it is fair to say that none of us would have a normal respiratory health if we were exposed to high concentrations of dust. We really need to have as low a dust concentration as possible in every circumstance. Then, in addition to that, we can think about individual predispositions.

**Mr PEARCE:** If the mine worker was to leave the industry in the interests of his or her own health, go to a doctor, have an X-ray and the response from the doctor was something along the lines, 'Yeah, there are a couple of little spots on there but you are getting out of the industry. I would not worry about it,' would that be good advice?

**Dr Yates:** I think it is difficult to know, because a couple of spots—if they are actually due to coal workers' pneumoconiosis then I would always recommend that someone is relocated rather than getting out of the industry, but I think it is a real problem for patients. I think patients have a real anxiety, and a lot of people will—in fact, workers do not really want to leave; they want to stay because it is their way of actually earning money and they are helpless without it. It is not what one would expect. Most people do not want to leave. I do think that sort of case does deserve better evaluation. I think referral to a thoracic physician who would be able to evaluate it better is always advisable. There is quite a strong, what we call, healthy worker effect in mineworkers. In other words, the people who are sickest are the ones who leave earlier, so the workforce that remains has much lower mortality than people who are in the community. In fact, you could possibly say that those are the ones who should be targeted for more screening than the others. Of course, they are the ones who are more difficult to find because they have gone off and found a job somewhere else.

**CHAIR:** Thank you very much, Dr Yates. I think you will find that in the Queensland coal industry, and the Australian coal industry generally, mining is in your blood. That is why they do not want to leave. Certainly in Queensland, we have generational coal families. I come from one of them. There is nothing better than cutting coal. That is why they do not want to leave. I would now like to go to counsel assisting, Ben McMillan.

**Mr McMILLAN:** I have no questions at this stage, thank you, Madam Chair.

Public Hearing—Inquiry into Coal Workers' Pneumoconiosis

**CHAIR:** Thank you very much. Thank you for coming today. If you can help us find a thoracic specialist, we would be very grateful, Dr Yates.

**Dr Yates:** If you find the position, we will find one.

**CHAIR:** I think we have got the positions. Thank you very much.

**Proceedings suspended from 11.56 am to 12.42 pm**

**SLATER, Dr Greg, President, Royal Australian and New Zealand College of Radiologists**

**SLAVOTINEK, Professor John, Dean, Faculty of Clinical Radiology, Royal Australian and New Zealand College of Radiologists**

**SOMMERFIELD, Dr Nigel, Fellow, Royal Australian and New Zealand College of Radiologists**

**VUKOLOVA, Ms Natalia, Chief Executive Officer, Royal Australian and New Zealand College of Radiologists**

**CHAIR:** I welcome representatives from the Royal Australian and New Zealand College of Radiologists. Thank you very much for being here with us. For the record, could you please state your name and the capacity in which you appear before the committee?

**Prof. Slavotinek:** I am John Slavotinek. I am a professor of radiology based at Flinders University in the Flinders Medical Centre where I am also the head of department. My history is as a general radiologist. I do not possess specific chest-imaging expertise although, as a member of this group here, I can answer such questions. I am here in my capacity as Dean of the Faculty of Clinical Radiology for the college.

**Dr Slater:** I am Dr Greg Slater. I am here as President of the Royal Australian and New Zealand College of Radiologists. I am a radiologist in Brisbane in private practice. I am here not as a specialist in chest radiology because my specialty interests are in abdominal and interventional radiology, but I am here to represent the views of the college. I chair the board of directors. I am also here as a person who has interacted on behalf of the college with the various stakeholders through this process.

**Dr Sommerfield:** I am a specialist radiologist and a fellow of the college. I practise radiology both publicly and privately. I have expertise in high-resolution CT scanning of the chest and a special interest in CT scanning for the detection of lung cancer and CT evaluation of pulmonary nodules.

**Ms Vukolova:** I am the chief executive officer of the college. I am not a clinician. My job is to support the board of directors and the college president and to oversee the operational running of the college programs and the office.

**CHAIR:** Would you like to proceed with your evidence now?

**Dr Slater:** Yes. I will ask Natalia to make the opening statement.

**Ms Vukolova:** Thank you so much for this opportunity to speak to you. We welcome this inquiry. We think that it presents us with a wonderful opportunity to improve an area that is a great concern in the community and, obviously, for our organisation representing the health professionals.

We are one of the royal colleges, which means that we are regulated within Australia and New Zealand to set appropriate standards for the training and accreditation of radiologists and radiation oncologists across both Australia and New Zealand. This means that we also set the standards for a continuous professional development program that is applicable to those professionals and, of course, we support them in other aspects of their practice.

By way of background, training in clinical radiology is a five-year generalist program. It follows after medical school, where a person gets their medical degree. They then do two years of training within the hospital system as an intern and resident and then they are eligible to apply to our training program that, like I said, lasts five years. It is important to stress here that it is a generalist program. We produce a generalist radiologist at the end of that program. Practitioners usually then subspecialise into different areas of radiology, as you heard from the three radiologists who are with me today.

Pneumoconiosis is a serious condition and we fully support the findings of the Monash review into the multitude of causes here. While CWP and pneumoconiosis is covered in the college's training curriculum and in the training program, the training program, being a generalist qualification, means that we wish to see going forward a proper screening program set up for it—for the miners in New South Wales—and we would echo comments from the Thoracic Society on that score.

Our recommendations I will go through shortly but, before I go there, I want to give a little bit of context in how a radiologist practises. A radiologist really needs to receive the clinical context of the patient, together with a request for imaging, for them to be able to make appropriate and useful

diagnosis. I think that it would be really helpful if you later questioned our radiologists on how that works. When a request for imaging is received, the images are acquired and a radiologist is involved in the detection and analysis of those images and what that means and then communicates the findings back to the referring physician. That is the flow of the process.

We strongly recommend to this inquiry, and we would love to see this happen, a government-run screening program that would follow successful screening programs already in existence, such as breast screen. A program like that would see every case assessed by two radiologists and any cases where there is a difference of opinion would go to a third expert and will involve multidisciplinary advice of thoracic physicians, occupational doctors et cetera. A screening program such as that would also have an in-built audit function. One of the ways that doctors keep their competency is that they need a high volume of cases. That means that only a few radiologists would be involved in the screening program. That number needs to be quite small. They need to get ongoing feedback on their performance. The only way to do that is by having other doctors agree or disagree and discuss with them how they are going.

We support the introduction and the ongoing use of the ILO standards. We think that, within the context of a screening program, that will really help us to get back to the elimination of CWP, which we all thought was already in place. We also agree with the Thoracic Society that there should be a mandatory reporting of these cases, because the data vacuum in which everyone seems to be operating about who and how over the many years is not acceptable and, going forward, a reporting register would be the best way to address that.

Lastly, in the context of radiology, the college has developed standards for practices. These are the standards that specify, for good imaging to take place, what machine standards you need to have in place, that qualified radiographers need to be acquiring images and, obviously, that clinical radiologists need to be involved in the operation. We understand from the Monash review that that was not consistently implemented in the past and going forward, as part of the screening program and standards for any Medicare payments they need to be available, because images need to be taken on good machines by qualified people and interpreted by radiologists. In summary, we are happy to contribute in any way and we are delighted to be here to address this serious issue. Thank you.

**CHAIR:** Thank you very much.

**Mr SPRINGBORG:** Thank you very much. We welcome you here today to assist our committee. You would have heard, as you had turned up earlier when we were undertaking some questioning, about how perplexed we are with regard to the misdiagnosis, or the failure to diagnose CWP. I refer to information that we had earlier about the number of positive cases and how they had all been initially missed. Can you step me through the circumstances? An image is taken. It goes to a reporting radiologist. The reporting radiologist examines that particular image and may note something peculiar on that image, such as those opacities—one three millimetres, or whatever the case may be. How is it that, in many of those cases, it was obviously there yet there was nothing that identified it as a potential issue for that radiologist? There has to be something unusual if you have those opacities there. You just cannot say, 'Oh, well, we don't know what it is. Therefore, we won't recommend any further follow-up.' What is the situation?

**Dr Sommerfield:** First of all, it is worth drawing a distinction between the practice as it was before, say, December of last year and the practice after that time. I draw the distinction, because that is when I got drawn into the region in that there were already six cases diagnosed and our Central Queensland branch received a call from Anglo American, which runs the Grasstree mine, seeking guidance from our Central Queensland operations manager as to whether there was anybody who could provide ILO chest reports. At that stage, it was identified that what needed to happen in response to the early detection of these cases was to have ILO reporting reinstated and to have reports done by a small select group of radiologists. That is basically where I come into the piece.

I think the key difference between the two situations—that is the situation where we understand that the chest X-ray has been performed in the setting of screening for pneumoconiosis and the setting when the chest X-ray is being performed for other reasons—very much alter the pretext probability that we are dealing with a case of pneumoconiosis. The sort of opacities that we are talking about in the ILO grading, the types of things that we are going to be showing—the nodules, the micronodules, the coal dust macules that form within the lungs of patients with the occupational lung disease—is one of the key features. It is the perfusion of that that gives us our ILO grading that we use for documenting the type of disease.

Most of the cases that we are talking about are around about the grade 1, which is the lowest level of the ILO grading, and also the type of opacities that we are talking about tend to be type P. I think there has been some discussion earlier about the nature—I can go into the specifics of how we categorise these particular opacities—but type P opacities are opacities of less than five millimetres. They are well defined. The ILO standard set of radiographs defines what exactly they mean by a perfusion level 1 of these opacities, what they mean by a perfusion level 2, what they mean by a perfusion level 3. It also defines what they mean by perfusion level zero, which is normal.

Particularly with P opacities, we are talking about very small and very subtle opacities. They are about the size of, say, a tea leaf on the chest film. We see these types of opacities all the time. I think that is the first point to make. In fact, in the ILO grading, we grade them as the key perfusion and then the secondary perfusion. If we think that it is a type zero, but maybe it is a type 1, it is zero/1. If we think that it is a type 1, or we think that maybe it is a little bit less than that, it is a 1/zero. There is, in fact, a zero/negative grading in the perfusion, which is basically, 'I can't see any of these opacities at all.'

The smaller opacities, the P opacities, are very common and we encounter them all the time in standard clinical practice. To clear up the confusion, if I were to see a chest radiograph that I would subsequently grade as a perfusion 1/1, or a perfusion 1/zero, outside of the context of screening for pneumoconiosis I would not necessarily call it abnormal at all. Once we start to get up to the larger opacities, then they usually deserve some sort of comment. Then we are starting to get into the area where perhaps it is a case of sarcoidosis. That would be the most common diagnosis that we would be suggesting if you were to, say, get the most perfect case of pneumoconiosis you can imagine. If you went back to 1975 and you found the gentleman who had the chest X-ray that we use as our standard for a three perfusion of pulmonary nodules and you did a HRTC on him and you put him into an NBT meeting they would say, 'That is a fantastic case of sarcoidosis.' The likelihood of these different diagnoses vary.

At the early perfusion, at the low perfusion end of the spectrum, if I saw a chest X-ray that had that sort of perfusion I would think, 'That fellow is probably a smoker.' The sort of opacities that we are seeing on the chest radiograph, when we compare chest X-rays to CTs, are not necessarily nodules at all. Once you get up to the larger nodules and you do an HRCT on a chest X-ray that has those larger opacities, you will see nodules in all of them. In fact, the nodules that we used to categorise as being irregular are often pretty much all quite regular when we compare the findings on CT.

The discrepancy often occurs when you get the small opacities, because they often are not nodules at all; they are little branching linear densities. They are small airways disease—often emphysema, a bit of bronchitis. Those are the types of abnormalities that we see on chest X-rays. We grade them as 1/zero, but they do not turn out to be pneumoconiosis at the end.

When you look at the comparison in a high-risk population, if you get miners with more than 10 years of exposure and you look at their chest X-rays that you have graded at zero/zero, or zero/1, then on HRCT you are going to find micronodules, the coal dust macules, in maybe 40 per cent of those patients. If you get those patients who you have graded as—

**Prof. Slavotinek:** I may be able to assist a little in setting the context, because I think that we are having a lot of detail around the grading system. There are two aspects to this. One is related to a review of the Monash report, which identifies multiple systematic deficiencies in the system that was being used. I will speak to just two of those deficiencies, although there are at least eight of them, if you go through the report. Two of them are that the technique of obtaining the X-ray was highly variable. The quality of the image that was being used for interpretation was variable and that was noted in the Monash review. The other thing that they made comment on, among many other things, is that on many occasions the information provided on the referral slip for the X-ray was very limited. It was pre-employment or nothing. Pre-employment could be for an office job.

I am now coming back to one point that Dr Sommerfield made and, in fact, Dr Yates made before lunch and that is understanding the context. The setting in which one is functioning is very important for determining an X-ray. To come back to what Dr Yates said, you have some small dots on an X-ray. There are up to 250 possible causes of that.

To come back at a broader level to the situation in which we find ourselves, the prior system provided very limited information to radiologists as a component of that process. The direction we are heading in I think is a positive one towards a screening type environment where the radiologist as part of that team has a system around them, such as having radiographers who are appropriately trained obtaining correct quality images. They are in a situation where they are looking at a batch of

cases with a clearly predefined objective: these are miners, so we are looking for certain types of conditions and we do not want to miss anything. Furthermore, in a screening environment, there is a second independent highly experienced reader that looks. Those two readings are taken. They are put together separately. If there is a difference here—if there is a discordance—we will bring in at least one more experienced reader to review that.

The context where I would like to see us go is quite different from the environment in which practice was occurring which was a little closer to the perhaps general diagnostic mode—one reader, one individual, very little idea what the condition was that was being sought. That does not excuse the outcome of the system, but I hope it provides a little explanation of what may have been occurring.

**Dr Sommerfield:** Part of the point I was trying to get across was that when you are screening and when you are looking for evidence of coal workers' pneumoconiosis on a chest X-ray and you find it to be abnormal to one of these lower profusion grades, about half of those subjects do not have disease on their subsequent HRCT. The sensitivity of the chest has to be wound down so tight with the intention that we do not miss any cases that we intentionally diagnose around 50 per cent in excess of the cases that are actually there. That is in a population that have a reasonable level of exposure. That is in patients who have worked in the mines for 10 years. That is not in the general population.

**Mr SPRINGBORG:** Ms Vukolova made the point when she spoke to our committee a few minutes ago that there was training for radiologists in the recognition of CWP or coal workers' pneumoconiosis, if I am accurately paraphrasing the evidence that was given. In that training for radiologists, what sort of consideration is given around the constancy and the exposure that they need to have for a certain number of images that they need to read and interpret to ensure competency in that area? That is even if our underlying situation or circumstance of training is competent—and we have some serious issues around that. We talk about ILO standards. What sort of awareness is there in that process around ILO standards, because the requirement of the ILO over the years has not disappeared? It is just that apparently we have not necessarily been doing what we should have been doing. That is probably a multifaceted question. If you can respond to that as much as you can understand, I would appreciate it.

**Prof. Slavotinek:** I will start responding, and perhaps you can pick me up if there are certain elements that I am missing in the response. Obviously one of the first responses of the college earlier this year and even before the Monash review came out was to establish a register and to support the fact that the ILO classification is important to record the information on an image. I will perhaps take one step back. When looking at an X-ray, the first thing a radiologist is trying to do is understand the setting the patient is coming from. Then they are actually looking at the images: 'Can I see an abnormality? Can I detect something?' Then they are analysing the abnormality: 'Given what I know about this patient and what I can see? If there are dots, there could be 250 causes. What is the most likely? Where do I put the interpretation?'

ILO standards are more about appropriately recording the appearances—and we heard a little bit about the sorts of things that might be recorded using the ILO classification. It is not something that is about being able to detect an abnormality. It is a vehicle for recording appropriately and accurately the findings on an X-ray in the setting of screening, for example, for coal workers' pneumoconiosis. We certainly support the use of that. If we move forward to an appropriate screening program, of course that should continue.

Coming back to the generalist training that Ms Vukolova referred to a while ago, there would be well over a thousand conditions that might be encountered in medicine by radiologists. We provide general, not subspecialist, training in detection of a wide range of these conditions. To move from a situation of general diagnosis to a situation where this very serious entity can be appropriately managed—again, I am being repetitive but I think it is a screening environment with a small number of individuals who are experienced in the use of the ILO classification. That classification is part of a record-keeping and data related system. It can also be used to drive audit. That is important for a number of reasons. First, it provides safety to patients because it gives feedback to those looking at the images. After there has been further investigation—involvement of physicians and HRCT—we have a final diagnosis. That is part of the feedback to those participating in a defined screening program with a small number of readers.

We would not want to see an environment where large numbers of individuals, be they radiologists, participating in that. That is why, for example, as an interim step we created the CWP register which reduced the numbers—we have roughly 4,000 members—down to about one per cent. That is an initial step. Then we would be very keen to see things go further to a true screening environment. BreastScreen is a very good model of a highly successful screening program that uses

a similar process or model. Of course the NIOSH program in the United States is also a successful model that can be deployed along similar lines. It is not in my remit in terms of the governance and the way that might proceed.

**Mr SPRINGBORG:** There was awareness in terms of how you recognise and report CWP as part of a training program and also recognition around the ILO standards. Is it then true that because we did not have this, or people thought we did not have it, one bit did not fit into the other bit because, even though we were aware there were standards—let’s say we were aware—no-one bothered to use them because they were not looking for it?

**Prof. Slavotinek:** If we go back to Dr Yates’s comment—and she probably put it better than I did—where there is a condition that we think is very rare or not present, I think a whole range of medical professionals perhaps took their eye off the ball. Performance was not as it should be. Then there are the other contributory factors in the Monash review that we support. They document things such as large numbers of nominated medical advisers, no clear criteria for a decision as to when a chest X-ray or for that matter spirometry might be used, often a lack of information to the radiologist, sometimes the X-rays did not even reach a radiologist, sometimes they were obtained by individuals not trained—I am listing a lot of potential causes. I think it is fair to say that multiple disciplines were not as focused as they should have been. We have identified that, I think, very ably by the vehicle of the Monash review. From my point of view, it is now about what we can do to assist improving the situation as we go forward.

**Mr SPRINGBORG:** You say that you have around 4,000 members. Did I hear that right?

**Prof. Slavotinek:** Yes.

**Mr SPRINGBORG:** You recommend around one per cent of those be the ones that we concentrate on being used. Did I hear you say one per cent?

**Prof. Slavotinek:** What I was suggesting was that our interim step, even before the Monash review, was to reduce that number down to one per cent. I think in a true screening environment—

**Mr SPRINGBORG:** Which is what—40?

**Prof. Slavotinek:** Yes, 40. We would go even further if we were—

**Mr SPRINGBORG:** You may go fewer than that. Your recommendation is around 40 across Australia, maybe less—20?

**Prof. Slavotinek:** I am thinking five to 10 perhaps in the Queensland environment. It would be about access to enough cases. That was a point that you made earlier. Perhaps 80 cases per week might be the sort of level of exposure in a true screening program. As a prior BreastScreen reader in the distant past, that was roughly the exposure that I had on a weekly basis. That is, I think, a good level of exposure to maintain experience and competency, along with the audit and feedback process that is essential.

**Mr SPRINGBORG:** That would mean that you would have 80 referrals. You recommend 80 referrals per week in order to maintain that competency.

**Prof. Slavotinek:** In that range. I would also be taking advice from other professionals such as the thoracic physicians to have an overview role and expertise in this area.

**Mr SPRINGBORG:** I do not have any further questions at this stage.

**Mr PEARCE:** I have a couple of brief questions. I think it was you, Natalia, who mentioned ILO reporting has been reinstated. No? Dr Sommerfield, you are the culprit. You used the word ‘reinstated’. What was happening before? Did we know about it?

**Dr Sommerfield:** Yes. ILO reports were not performed essentially for my practising lifetime up until the start of this year in Australia. The ILO reporting was not part of the reporting process for either coal workers’ pneumoconiosis or any other pneumoconioses.

**Mr SPRINGBORG:** Even though there was awareness of it, it was not used.

**Dr Sommerfield:** Yes. It is the issue is detection verses grading. ILO is all about grading and it is all about epidemiology. One of the big drivers towards getting ILO back was that we are starting so far behind the eight ball we need to be able to determine exactly the full scope of the process. We need the epidemiological tools to say, ‘This is what the prevalence is at the moment.’ That data just does not exist.

**Mr PEARCE:** We have had a bit of problem in that a lot of this has just disappeared off the radar for about 10 years.

**Dr Sommerfield:** Yes.

**Mr PEARCE:** Would what you were just talking about have anything to do with that? Would it be a contributor as to why it slipped off the radar?

**Dr Sommerfield:** I think so. The intention of not necessarily the ILO specifically but a dedicated screening approach towards detecting this disease—I think that is where the shortcoming is. Whether you use ILO or something else, I stress that all clinical radiologists—chest X-rays are our most performed examination. A radiologist would perform 4,000 or 5,000 chest X-rays a year. I have done over 60,000 chest X-rays in my career. In every single chest X-ray that we look at we look for the presence of interstitial disease, which is what we are talking about here. It is either linear opacities or it is nodules.

Detection and our proficiency in actually detecting interstitial lung disease I do not think is really the issue. The issue is that if it is performed in a screening setting our detection levels need to be cranked well down below the levels we would ordinarily use in the diagnostic setting to the point where we are able to find these early cases. Even then, we miss a substantial number of these cases on chest X-ray which is why high resolution CT is also in the offing as an alternative modality for screening partly because it actually picks up those gains and sensitivity which X-ray lacks.

**Mr PEARCE:** Would you be able to explain to me and probably to the rest of the committee exactly what happens? A mine worker inhales dust particles. Could you explain it from there? What happens and when does it become a serious issue?

**Dr Sommerfield:** It depends on the size of the particle to start with. Different particles will flow in different sorts of manners. It needs to be airborne in order to gain access to the lungs. Different portions of the lungs will tend to trap and deposit small particles of whatever particulate material to different frequencies. That is important when we are trying to deliver drugs to the lungs. If you are talking about asthma for preventive medications, the size of the granules are quite important. Likewise in coal dust, where it actually ends up in your lungs varies to a degree. The first thing is that it needs to get into the alveolar sacs. Therefore, it starts in the airspaces but quite soon it becomes engulfed by macrophages and such within the lining of alveolar sacs and becomes part of the interstitium, so into the tissue of the lung.

Coal itself, or at least carbon itself, does not tend to be the main problem. The main issue is those other hydrocarbons that go along with the carbon that incite an inflammatory response. That is the problem. If you have this exposure to coal, you are setting up a situation where you have these little particles of irritant material within the interstitium that are inciting inflammation. It is exactly how far that inflammation progresses that will determine how incapacitated the patient is going to be.

**Mr PEARCE:** When a coalminer inhales dust and it can be picked up on X-ray after the person has left the industry, does it stay in the lung?

**Dr Sommerfield:** Yes. It is there all the time. You and I have carbon in our lungs. We are city dwellers in the modern era. We have plenty of carbon. If you look at post-mortem sections of lung, they will all have anthracosis. They will all have deposits of carbon. It is just a matter of being alive. The little deposits that we are looking at in the chest X-ray are not necessarily the carbon or the coal or what have you. It is our inflammatory response to those processes.

The body only has a limited number of responses to an insult. The interstitial responses—the nodules or the fibrosis—are the features that we look for in the chest X-ray, but they are also the same features that will be produced by a myriad of other diseases. It has the appearance on chest X-ray of an interstitial process.

**Mr PEARCE:** That is why you need the history of the person?

**Dr Sommerfield:** Yes.

**Mr PEARCE:** Thank you for that; that was excellent.

**Mr KNUTH:** With regard to the comprehensive screening for workers at risk of exposure to coal dust which you were referring to before, when will these people be able to begin the diagnosis in Australia considering they need further training?

**Dr Slater:** We have undertaken a number of steps, but one of the core steps is to recognise that in a screening program there is centralised data collection, which might be via the ILO classification, but also retention of the images. Having a pool of images, for example, we take the B Reader course, NIOSH, government-run central data collection image pool ability to access cases, run courses and deliver teaching as indeed they do. That is one approach where you have an assessment and a course. There are other approaches that are successfully used—for example,

BreastScreen, which is successfully deployed in Australia to a very high level compared to other sites overseas. That is more along the lines of an induction training where one learns the classification system. It is not the ILO classification in the breast; it is a different one. We get consistency training during that induction process to ensure that different readers or experts—there is a small number of them—are reading things in a consistent fashion followed by, and again going back to the core thing, patient outcomes are known and documented and then there is feedback to those participating in the process. Without ongoing feedback, we might run into performance issues and that is core to any good screening program. There are a number of ways of delivering this. What we have done—and I have already signalled—is we started reducing the number of readers exposed by establishing the CWP register. That number would need to reduce further if we moved to a true screening program. If such a screening program is implemented, we would then have that form of data collection, access to the resources and pool of cases, assuming the screening program grants the college that access, and then we could deliver that sort of training in the same effective way that other entities have done. We are not in that position at present.

**CHAIR:** Thank you. Are there any other questions? If not, we will go to counsel assisting now, Ben McMillan.

**Mr McMILLAN:** Thank you. Can I ask you please to walk me through the process from referral to assessment from the point of view of your speciality? First of all, if a coal worker or a retired coal worker presents to a general practitioner with lung symptoms, we assume first of all that the general practitioner is well informed and kept up to date with his clinical education and has taken some kind of occupational history from that patient. He then refers him for a chest X-ray. What information typically does the radiologist receive at that stage to know that one of the things they might be looking for in that chest X-ray is evidence of CWP?

**Dr Slater:** If I could maybe comment on that, we need to clearly define the differences between symptomatic patients and screening patients who by definition are well. The way it would work in a patient who had symptoms is they would visit their GP. He would make an examination, make a provisional diagnosis and request tests and the tests there would be with the aim of making an absolute diagnosis of the cause of that patient's symptoms and then the patient would receive appropriate referral or treatment depending on the provisional diagnosis and the results of the chest X-ray. In a screening program it is quite different and it is similar to BreastScreen Queensland, for example, where you are taking patients who have no symptoms. These are very healthy, normal working people—miners in this situation—and they are being screened for a disease that has no sign at that stage, so it is an important distinction to make because the significance of any slight abnormality in that situation is very different if it might be pertaining to the possibility of a hidden disease in its very earliest stages from an odd dot on a chest X-ray which is not going to be the cause of a symptomatic patient's symptoms at that time, if I have made myself clear.

**Dr Sommerfield:** If I could follow on from that as well, also a miner who had presented in those circumstances should have a chest X-ray and a HRCT because even if the chest X-ray is normal he needs to have a HRCT on top of that to be maximally sensitive for coal workers' pneumoconiosis. We would not have any hesitation in proceeding on to that other study.

**Mr SPRINGBORG:** Sorry, Ben, but your definition of HRCT is 128 slice or 256?

**Dr Sommerfield:** No. We can do an adequate examination on any of the general medically compliant CT scanners. There is not that much of a requirement for special equipment in order to achieve the sort of examination we want. What we need to do though is make sure that the examination is targeted towards the evaluation of interstitial lung disease, and that is what the HRCT terminology is all about. It comes from a time when CT slices were about 10 millimetres thick or five millimetres thick and we would not be able to have any clue of determining the presence or absence of these interstitial changes at all on them, so we would have to do these two studies as a separate entity. These days with the modern equipment, say a 128-slice scanner, then we will be acquiring a lot of thin slices on a regular basis and so most of the high-end diagnostic machines will be essentially a HRCT from the start, but that is what I mean. Any CT that you will be able to get from referral from your general practitioner will be able to achieve that sort of imaging technique.

**Mr SPRINGBORG:** Sorry, Ben.

**Mr McMILLAN:** Putting aside screening for a moment—and I will ask you some separate questions about screening in a minute—but dealing at the moment with, for example, retired miners who are experiencing lung symptoms and present to their GPs, what level of information does that GP need to provide to the radiologist in the referral in order to ensure that that radiologist is aware of the need to look for evidence of CWP?

**Dr Sommerfield:** Just the history of exposure. That would certainly be sufficient to suggest that any interstitial changes that we see could be related to coal workers' pneumoconiosis and that would prompt further investigation from the outset.

**Mr McMILLAN:** Is that something as simple as in the referral that you are identifying that this person has worked in an underground mine for X number of years?

**Dr Sommerfield:** Yes. I can guarantee you that is far more than we get on a regular basis for the vast majority of our chest X-ray referrals.

**Mr McMILLAN:** What can the committee do from your perspective to improve the level of information that is coming to radiologists? Is it a matter of increasing awareness amongst GPs? What is the—

**Dr Sommerfield:** As soon as you go to a screening program then it leaps over that problem entirely. If it has been performed under the auspices of a screening program, then there is little additional information that we need to get out of that. The problem is if it is not being performed under the auspices of a screening population or if we are getting a request form in without any clinical details or with rudimentary details for pre-employment clearance or something along those lines, then we do not have that information and it would not necessarily trigger further investigation of subtle disease.

**Mr McMILLAN:** Moving then to the screening program, the committee has access to the submission that the college made to the Senate Select Committee on Health and I am referring to that. In that submission under the heading of 'Reporting to ILO classification' you noted that you had advised members that clinical radiologists should only report on screening chest radiographs for CWP if they—and then there are three dot points—have experience in reporting, and I am paraphrasing, are familiar with the classification and have a sufficient case load. Was that intended to be a precursor to the recommendation for a screening program?

**Dr Slater:** Yes. This was done as an interim process when we became first aware of the recurrence of CWP and in conversation with the minister while the Monash review was taking place. It was not meant to commit us. We did not know what the findings of the Monash review were going to be, but it was an attempt to establish local ILO equivalent reporting by a small group of experienced radiologists pending the outcome of the Monash review. The Monash review recommended further training in ILO classification and we have endorsed that and we are processing down that path.

**Mr McMILLAN:** With regard to the advice that you sent to members, I just want to understand the words that you have used in the submission. Where you have said that radiologists should only report on screening chest radiographs, does that mean that they should not report on chest radiographs for CWP or is it something other than that?

**Dr Slater:** No. These are patients under the screening program who are being sent by the nominated medical advisers for detection of early stages of CWP and they are perfectly healthy patients. This is purely a screening process. The problem is that unfortunately previously the previous process was a screening program in name only. It was not actually functioning as a screening program and there were a lot of deficiencies as we have discussed.

**Mr McMILLAN:** Are you able to tell us presently how many clinical radiologists in Queensland would be experienced in reporting on radiographs for CWP?

**Dr Slater:** We have 23 on our register.

**Mr McMILLAN:** Is that—

**Dr Slater:** Everyone on our register has had experience with CWP reporting and many of those have been through reporting for silicosis and asbestos in the past which have the same ILO classification for CWP in the past as well, but all the people on our register have had experience with it in the past.

**Mr McMILLAN:** I counted, I think, 25 doctors in the register that is presently available, at least on the Department of Natural Resources and Mines website. Is it the case that in the process of their appointment to that register there was some assessment process of their experience and competency in reading and reporting on these radiographs?

**Dr Slater:** An assessment of their experience was made. They were asked to submit what experience they had had, what case load they had to maintain adequate ongoing experience and the applications were assessed by senior members of the college including myself and Professor Slavotinek. We went through each application individually. Some of the applications were rejected because they did not fit the criteria and a number were accepted.

**Mr McMILLAN:** What sort of case load and experience were you looking for in determining whether those doctors were adequately experienced?

**Dr Slater:** We did not actually define a number; we were looking at a case load which we considered would be adequate in the interim process. We have had people like Dr Sommerfield who have reported 600 ILO classification screening X-rays. We have had people who have reported over 1,000 or thousands and we have people who have reported 100, but I think—and Professor Slavotinek might help me here—generally we were looking for people with hundreds against their name.

**Prof. Slavotinek:** I am repeating myself a little, but this is an interim response before we even had the Monash review. This is not the position of the College of Radiologists ongoing. I hope we have made clear that a screening program would have to have all of those other elements I have discussed and I will not repeat myself unless you wish me to.

**Mr McMILLAN:** But this register is out in the public arena. It is on at least the Department of Natural Resources and Mines website. Has it been distributed to nominated medical advisers as far as you are aware?

**Dr Slater:** Yes. The aim of the register was for it to be available to NMAs—that is a very important function—and I believe the DNRM have done that.

**Mr McMILLAN:** There is clearly a suggestion there from the college that at least in the interim these are the people that you would refer patients to that have some experience and ability in this area.

**Prof. Slavotinek:** Yes, absolutely.

**Ms Vukolova:** Just to add but are also willing to be involved, because again it is not something we are mandating. We ask professionals who, on top of meeting all those criteria, were also interested to be involved, because getting people involved who are not interested is in the realm of too impossible. Them stepping forward was also an important step of wanting to be involved.

**Mr McMILLAN:** It is encouraging I think that there are a significant number of doctors in that list that either work from or take referrals from regional centres, particularly in Central Queensland. Was that a particular focus in that you tried to locate doctors that could work in those areas?

**Dr Slater:** We had to cover the possibility that miners would move interstate, so we did not restrict it to Queensland but we recognise it is largely a Queensland issue so the majority of people were from Queensland. I should add that a number of people have voluntarily dropped off the register since it was established. There were 43, I think, originally now down to about 36 all around Australia. They have largely dropped off I think because they were not able to continue the adequate case load that they considered was sufficient.

**Mr McMILLAN:** And that, I suspect, flows in to your evidence, Professor Slavotinek, about reducing that number further, ultimately to maintain that constant case flow?

**Prof. Slavotinek:** Absolutely. Again, it is very important that it is being done in an environment where there is feedback as to performance. We know the outcomes of the cases, so the individuals know you said this, this is what was found and there is an opportunity to learn. That is an appropriate environment.

**Mr McMILLAN:** Thank you very much for your evidence. Thank you, Madam Chair.

**Mr PEARCE:** Would you be aware if any of those people on that list are also nominated medical advisers?

**Dr Slater:** No. None of them are nominated medical advisers. They are occupational physicians or GPs who are involved in primary care of the patient. This is totally at arm's length. I will say no more.

**Mr PEARCE:** I appreciate that.

**CHAIR:** Thank you very much for coming in this afternoon. It is a very hot day in Queensland, but thank you very much for being here.

**CLIFF, Professor David, Private capacity**

**CHAIR:** Thank you very much, Professor Cliff, for coming in today. We are running a little bit early. We have had to change the schedule because of the unavailability of some people. Thank you for coming in earlier. We really appreciate it. For the record, could you please state your name and your position and the capacity in which you appear before the committee?

**Prof. Cliff:** My name is David Cliff. I am a professor of occupational health and safety in mining at the Minerals Industry Safety and Health Centre at the University of Queensland; however, I am not representing the university in my submission. It is from my own experience and background.

**CHAIR:** Thank you very much. Would you like to begin your evidence, please?

**Prof. Cliff:** I would like to submit to you—and I have in writing—that the current way we manage or attempt to manage exposure of workers to coal dust in Queensland is inappropriate. Far too much emphasis is placed upon postevent or postexposure monitoring through the coal workers health scheme. Realistically, that is never going to prevent people from being exposed to coal dust. I would suggest that probably the majority of cases that have been detected in recent times would still have been detected because of the latency period between exposure and the detection of disease.

Many of the mining companies will tell you that they have efficient controls in their monitoring to prevent dust—and that is true, but I also suggest to you that they probably cannot demonstrate to you that they have effective monitoring in place. That is because we currently do not have a system in place for real-time monitoring of dust exposure in the air, of workers and of machinery.

There are some personal real-time monitors that are in use in some of the mines. Anglo particularly have them. Simtars have them. They are not what we call intrinsically safe or flame-proof or certified in Australia; however, that is a relatively straightforward process to overcome because they are certified in the United States.

I think that process is also of limited value, because if you look at the stresses that the mining companies are under, personal monitoring is a very indirect reporting process. You do the monitoring, you compile a report, the consultant gives the report back to the company, someone looks at it and it goes away or they try to reconcile what has happened to the dust exposure.

I would suggest that a more effective way of doing it would be to have continuous real-time monitoring of dust—the same as we do for gas in our underground coalmines—which is connected to a control room, like the gases are, and it alarms in real time. That would allow you to monitor effectively whether controls are in place or something has failed or it is no longer working. It is not directly tied, obviously, to individual personal exposure, but it would be a valuable routine monitoring tool. The technology exists. It is not certified for use. It would require some modification. The analogy would be that we have been monitoring real-time dust in the environment for the last 15 years, and if you go on various department websites you can see the dust levels in various locations around Australia in real time. There is no technological reason it cannot be done.

The advantage would also be that we are not dependent on the ever-reducing number of people within our mines and the ever-increasing levels of responsibility they have and the diversity of tasks they have to undertake. The potential for something to be overlooked or not taken as seriously as other issues because they have other things to do would be reduced if we had such systems in place.

**Mr SPRINGBORG:** Thank you very much, Professor Cliff, for assisting our committee. We have heard myriad views over the last month that we have been taking evidence, at one public hearing or another, and also in the submissions which have been made to us. The only common view and point we have now is that just about everyone recognises that we have a serious problem and are variously prepared to accept individual/collective responsibility. Some are still in denial, but nevertheless we are coming to some conclusions around it. In their evidence to us this morning the Resources Council indicated that they believed there were some problems with real-time monitoring. Do you believe there are any genuine issues or challenges around real-time monitoring that are not insurmountable?

**Prof. Cliff:** No.

**Mr SPRINGBORG:** They did not explain what they were. I suppose we should have pursued it.

**Prof. Cliff:** There are a variety of techniques for real-time monitoring. They are not all directly intercomparable: some use light-scattering devices; others use weighing devices of various sorts. You would need calibration factors and conversion factors. Speaking as a person who has used all

of those devices and looked at them over a long period of time I can say that they are relatively minor issues. If they were such a big issue, they would not be mandatory in America. For example, the United States industry has mandated them as a way of using dust monitoring as their standard. Anglo would not have bought 12. The government would not have bought a number themselves. I do not believe that any issues are insurmountable.

**Mr SPRINGBORG:** One term that has been annoying me all through this is this notion of re-emergence, which I think is just baloney. It has all been there at one stage or another with regard to CWP. From your extensive experience and research and what we know now, would you also conclude that it is likely that coal workers' pneumoconiosis had basically lain relatively undetected for a number of years because we were not looking for it in the right way?

**Prof. Cliff:** If we look at it from the point of view of the dust exposure of the workers, I think the data that I presented in my report and that other people put together indicates that there has been a significant percentage of exceedances of the exposure standard for the last 20 years. Logically, one would have to assume that, therefore, CWP is an issue that has been there for that length of time, given the latency period of in excess of 10 years before one would detect that in the lungs.

**Mr SPRINGBORG:** And potentially as short as five years in some people. I mean, I think we have heard evidence or seen circumstances where some people may have worked in a mining environment for a much shorter period of time and contracted it, but the general evidence seems to be up around that 15 or 20 years.

**Prof. Cliff:** It is a complicated issue, because it is simply a gross accumulation of coal dust in the lung. Therefore, it can be done relatively quickly or it can take a long time. Yes, it could be five years, but the data I have seen in Queensland indicates that there have been in excess of 10 per cent of samples that were taken. To be honest with you, the samples probably are not as good as they could be, so at least 10 per cent of the workforce has been exposed. I am not saying they were not wearing dust masks and things, but personal protective equipment is at the bottom of the hierarchy of control and, really, not something you should rely upon, in my opinion. I would say that the evidence is that the dust has been there for a long time, yes.

**Mr SPRINGBORG:** That is one thing that you do note here. You give us some very interesting graphs and information with regard to exposure of workers to dust over a particular period of time. There seems to be a significant proportion of those working in the industry that have been exposed for the time and at levels which exceed regulation.

**Prof. Cliff:** I think I should qualify it by saying that they have worked in the environments where the dust level exceeded the exposure standard—it is quite true—however, many of them would have been wearing respiratory protection of various sorts, and not just a dust mask. There are filtered respirating devices that were routinely used and are routinely used in the industry as well. Whether they breathed in that level of dust is another question.

**Mr SPRINGBORG:** We heard evidence this morning from witnesses from BHP Billiton that there was a requirement, I understand, for their workers to wear some form of personal protective equipment or respirators—whatever the case may be—and they had issues with regard to, I think, three confirmed cases of coal workers' pneumoconiosis and they had exceptional or exceeding dust levels in their underground longwall environment. Based on that, notwithstanding the issues of protective equipment, you have to contract it by inhaling dust, do you not?

**Prof. Cliff:** Yes.

**Mr SPRINGBORG:** So there is obviously a failure in the system somewhere for it to happen, notwithstanding this requirement to mitigate by wearing some form of respirator or whatever the case may be?

**Prof. Cliff:** Powered respirators are very effective isolators, but the normal dust mask is not very effective because you have to wear it, you have to be clean shaven and it has to be fitted to your face. There are a number of practical limitations to those devices actually having a real effect or impact on dust suppression.

**Mr SPRINGBORG:** Would you also conclude, based on some of the evidence we are seeing coming forward here—constant reference to longwall mining, the production and long shifts and degasification—that all of those sorts of things are exacerbating or increasing the chances of a coalmine worker contracting coal workers' pneumoconiosis?

**Prof. Cliff:** All of those factors would increase the amount of dust which is generated generally. When you degas coal you dry it so that it becomes more powdery. If you increase production rates you will crush more coal, which generates more dust. All of those factors, depending on where the worker stands of course, will generate more dust in the atmosphere.

**Mr SPRINGBORG:** Are there challenges with regard to reducing the higher level of dust that exists in a coal work environment, particularly longwall mining? In the graphs you provide there seems to be a significant percentage of those operators where levels of respirable dust exceed what are the regulated standards at the moment. Do you think the mine operators are doing enough or really have a handle on what needs to be done to get this under control?

**Prof. Cliff:** The technology exists and has existed for a long time to keep dust levels at an adequate level. It requires people to maintain those devices and those systems and monitor them. Some of those systems will impact upon productivity, because they may make it more difficult to see the coal that the shear is cutting, for example. Water sprays may interfere with field of view. People may want to stand in the wrong place to get a better view of where the machine is cutting. Some of the control devices may be seen to count against productivity, but the technology exists and has existed for a long time. ACARP, the Australian Coal Association Research Program, has spent probably \$20 million over the past 20 years investigating the various mechanisms for controlling longwall dust.

**Mr SPRINGBORG:** With regard to that impact, do you feel then, based on your observational research, that in order to maintain that productivity there is any sort of pressure that comes down the line on the workforce to do things or reduce their own safety by not taking steps that would assist them in reducing their exposure to that dust, or is it something that some of those workers just tend to think, 'This is annoying. It's in my road. I'm going to take it off'? We did hear some of that evidence the other day from some of our retired workers at Bundamba. The world has probably moved on significantly from that as well.

**Prof. Cliff:** I think it comes down to the perception of harm. I do not think they thought they were exposing themselves to excessive dust levels that were going to cause them any damage; therefore, they question the value of doing those controls. It is much like why people do not stop at red lights or pedestrians cross against a red light. I call it cultural violation. If you are not convinced of the immediacy, because it is a long-term issue, you will say, 'It didn't do any harm yesterday, so why is it going to do me harm tomorrow?'

**Mr SPRINGBORG:** That sort of culture could be something which is an attitude that permeates not only management but also those who work in some of the mine environments?

**Prof. Cliff:** Yes, it could.

**Mr PEARCE:** I have just one question on the self-management of dust monitoring in the mine. I used to work in the industry, so I understand about the different times and different locations. Is that a concern to somebody such as yourself?

**Prof. Cliff:** I think that any management process needs an effective audit and oversight process. I plead guilty: I have on several occasions tried to suggest to various governments that there should be public reporting on a regular basis of respirable dust measurements across the industry. The department in Queensland, when it had extra resources, did have their own dust testing officers, who did do some check auditing. There is a danger, I think, when it is entirely left up to the companies to do the monitoring, unless there is sufficient oversight by a third party, that that monitoring may not be as effective as it could be.

**Mr SPRINGBORG:** Can I just pick up on something. You mentioned a time when sufficient resources were made available, if I heard that right. When was it that sufficient resources, in your view, were not made available? When did that change?

**Prof. Cliff:** Speaking as an ex-public servant, I have to say that it is a case that other priorities came along. We have to bear in mind that in the late 1990s we were in the post-Moura era. We had new legislation being brought in. We went to management systems. We had other issues that occupied the department's focus at that stage. It may sound a bit glib, but with finite resources they devoted them to what they thought were the most important things at the time. They dealt more with principal hazards: fires, explosions, strata control, fatigue was a big issue in 2001. It is understandable, I think, that they devoted the resources they had to other areas.

**Mr SPRINGBORG:** Are you talking about when the new regulatory environment came in to place in 2001; around that time?

**Prof. Cliff:** That is when I think a lot of the changes happened, yes.

**CHAIR:** I now go to counsel assisting.

**Mr McMILLAN:** Professor Cliff, could you give the committee your assessment of the Simtars model for external—and I use that word advisedly—monitoring of occupational health and safety, particularly in relation to respirable dust? Do you think that is working?

**Prof. Cliff:** I have to disclose that I used to work for Simtars. At one stage, I was the manager of occupational health and safety at the Occupational Hygiene, Environment and Chemistry Centre at Simtars, so I did monitoring there. It is a challenging thing to do, because on the one hand Simtars has to generate revenue. If you generate revenue for clients, there is not automatically a confidential clause in there. However, then you get the ethical question: if you find something that is unacceptable what do you do? I am not sure how you resolve that issue. I believe the people at Simtars are highly ethical. I do not believe the monitoring they do is in any way tainted.

However, I suppose the question is, what do you do with the reports and who actions the reports when they make them to the company? I think that is a problem that any consultant has in doing any work for a company; they will do the work that they are hired to do. They may make recommendations in the report, but they have no capacity to do more than that. If Simtars did start advising the inspectors of outcomes directly, the company would stop using them and would just use a commercial supplier instead, so there would be no net benefit in that. The challenge, I suppose, is the visibility. The inspectors did not, for whatever reason, look at the reports themselves in any great detail and keep a continuous visible log. This comes back to central reporting collections of data, I believe, much more than the consultants doing the testing.

**Mr McMILLAN:** Was Simtars established as a response to the move to industry self-regulation?

**Prof. Cliff:** No. Simtars was established in 1986 as a response to the Kianga explosion and the Moura No. 4 explosion. It was actually established to improve the health and safety of the miners in general, but particularly due to principal hazards.

**Mr McMILLAN:** Would you suggest that having departmental inspectors and a move back towards a more regulatory framework would improve the level of independence of dust monitoring?

**Prof. Cliff:** I think it is a question of oversight. You have to balance management against compliance. I think that the current system would work if the monitoring was done properly and if there was sufficient oversight by the government of that information. I think that auditing is a good function to have as well, but I come back to the fundamental point that I do not believe whole-of-shift personal sampling is an effective mechanism for measuring the dust exposure of the workers in any case. Anecdotally, I am sure you have heard stories of people leaving the devices behind because they are too heavy or too cumbersome, holding them in front of a chute to see if they get a higher level or whatever else. There are all those sorts of issues that undermine the reliability of the sampling regime. I think in the 21st century, if we are really after monitoring effectiveness and controls, there are better ways of doing it.

**Mr McMILLAN:** The committee has heard some evidence that some of the other engineering solutions to reducing or mitigating dust levels underground pose safety hazards in and of themselves, for example, the use of water sprays can cause machines to slip and so on. I think you alluded earlier in your evidence to workers needing to stand in the wrong place and so on. Have you given consideration to that balance between the additional benefit that some of those dust mitigation measures can achieve, as opposed to the inherent safety risks that they pose themselves?

**Prof. Cliff:** I think the question comes down to what level of dust they are being exposed to in real time and whether these controls are adequate and, if they are, can they be modified? I would suggest that we do not actually monitor the effectiveness of those controls and, therefore, whether they need to be as they are or need to be modified. Often they are designed and put in place and then either turned off or used sporadically, depending on a whole pile of concerns. We need more data, more information and better information to refine those controls, if there are issues with them, to make them more effective. It may not be that we need more water, but different styles of water sprays, for example, or located in different ways.

I am sure our colleagues in New South Wales will tell you that they do not have any exceedances in New South Wales, yet it is the same coal, the same machinery and the same controls. Why is there a difference? I do not think you can argue that the New South Wales monitoring authority is a private consultant that does it for the money. You would have to accept that their monitoring is at least as good as if not better than it is in Queensland. However, currently they have very low levels of exceedance of longwall dust. I cannot see why those controls cannot be made to work.

**Mr McMILLAN:** What is your assessment of why they have lower of levels of exceedances than Queensland does?

**Prof. Cliff:** I think the overall process that has existed in New South Wales for the past 20 years is better. There has been a standing dust committee in New South Wales for as long as I can remember, which is a tripartite committee. There used to be one in Queensland under the old act for a while, too. There have been various attempts at similar groups in Queensland. I am sure you have heard about the HIAC committee, for example, which has had several attempts at working together. That is a tripartite group as well. Coal Services do the mandatory monitoring, but they will also go beyond that. Under order 40, Coal Services has to approve longwall extraction plans for dust adequacy as well, so there is a much greater visibility. If you look at the question of the monitoring that is done, the monitoring that is reported really to a tripartite committee so it is more visible and that there is feedback to the mines if there are any exceedances, then that process is more effective in New South Wales than it is in Queensland. I think you cannot doubt that.

**Mr McMILLAN:** In Queensland, coalmine operators are required to have a safety and management system for the particular mine. That system is required to address dust mitigation strategies. Are you suggesting that the equivalent system in New South Wales would require a central authority to approve the equivalent of that plan?

**Prof. Cliff:** In New South Wales, respirable dust is required as a principal hazard under respirable dust and other environmental factors. Dust is not managed in Queensland as a principal hazard. You may have a dust management plan or you may have just managed it as part of a ventilation plan, for example. Therefore, I think it has a higher visibility. I come back to it all the time: I think visibility is the key in many ways here. I am not saying the department here does not approve things, but it needs to have the visibility to see the things in the first place to not approve. That is like semantics, I suppose, in some ways, but that is the way most plans in Queensland work. I would suggest that the department here does not have the same visibility of dust management as maybe Coal Services does in coalmines in New South Wales.

**Mr McMILLAN:** Isn't there a strong argument that coalmine dust is a principal hazard when you look at the definition of 'principal hazard' in the legislation?

**Prof. Cliff:** Yes. That is why in New South Wales it is under that and in national model legislation it is mentioned as a hazard.

**Mr McMILLAN:** Do you think there needs to be some more express provision in the regulation to essentially direct mine operators to treat dust as a principal hazard?

**Prof. Cliff:** I think it can be achieved through the existing system provided the emphasis is placed upon it, because the inspectors have the capacity now, under the directives, to issue requirements for monitoring and control in plans to be developed. I would hate to come back in five years' time and find we are doing it for occupational noise exposure or silicosis or hazardous chemicals. It is an iterative thing. I do not think we need necessarily more formal mechanisms. After all, you can issue a guideline, which has very similar powers to a regulation, to get mines to do things. As I say, there are directives that can be issued and have been issued in a number of cases.

**Mr McMILLAN:** In your submission to this committee, you have included some data that has been obtained from the Department of Natural Resources and Mines that shows significant exceedances in dust levels at Queensland mines over the past five to 10 years, at least. Does that suggest to you that whatever dust mitigation strategies are currently being employed are inadequate?

**Prof. Cliff:** Yes.

**Mr McMILLAN:** Have you formed a view such that you could present a recommendation to this committee about what can be done about that?

**Prof. Cliff:** That is why I am arguing for more effective monitoring and more centralised reporting of that monitoring, not as a punitive measure but, if you are trying to manage the risk, you need to know what the risk is, you need to know who is exposed and for how long and what the factors are that influence that risk. It is like driving a car and trying to keep under the speed limit without a speedo. You need that information.

**Mr McMILLAN:** What more can be done in terms of dust mitigation rather than dust monitoring?

**Prof. Cliff:** Real-time dust monitoring and fixed real-time dust monitoring, because then you will see changes in parameters, such as if sprays are working or not working, in real time. Therefore, there is no lag. There are practical difficulties and I am an academic, so I can say that easily. There

are limitations, but there are in a lot of devices. We have real-time gas monitoring in our mines. They suffer the same issues. We have managed to get around that. We can do it. I suggest that we have carried on for too long in the absence of real information, probably under the apprehension that it was not a real problem and, therefore, did not need to be addressed.

**Mr McMILLAN:** Thank you.

**CHAIR:** Thank you so much, Professor Cliff. You have really enlightened us today. We had been under the impression, for example, that real-time dust monitoring was a few years away as the technology is not there. Thank you so much. You have really given the committee a different path to look at. If we need some further information from you, would you be prepared to come back before the committee, please?

**Prof. Cliff:** Absolutely. That is not a problem.

**CHAIR:** Thank you very much. All questions taken on notice need to be provided by the close of business on Friday, 18 November 2016. There being no further witnesses for today, I declare the public meeting of this committee closed.

**Committee adjourned at 1.58 pm**