

**QUEENSLAND COAL MINING BOARD OF INQUIRY**

*Coal Mining Safety and Health Act 1999*

*Establishment of a Board of Inquiry Notice (No 01) 2020*

Before:

Mr Terry Martin SC,  
Chairperson and Board Member

Mr Andrew Clough,  
Board Member

At Court 17, Brisbane Magistrates Court  
363 George Street, Brisbane QLD

On Thursday, 20 August 2020 at 10am  
(Day 12)

1 <ROBERT GAVIN TAYLOR, on former oath:

[10am]

2  
3 <EXAMINATION BY MR RICE CONTINUING:

4  
5 MR RICE: Q. Mr Taylor, at one point yesterday I was  
6 asking you about a scenario where a regulation set  
7 a standard of what must be done to achieve an acceptable  
8 level of risk. I think there is some qualification you  
9 might want to make on that subject, I've been informed?

10 A. If I may.

11  
12 Q. Yes.

13 A. When we talk legislation in Queensland, there are four  
14 elements. There's the Act. There's the regulations, which  
15 of course are inviolate, so you have to be in full  
16 compliance with those. And then there are two other  
17 elements - the recognised standard and the guideline. The  
18 guideline speaks for itself. It is a guide to how you can  
19 achieve compliance.

20  
21 I misunderstood you when we talked about a standard.  
22 I thought you meant recognised standard. Whilst you really  
23 should try and reach that recognised standard, there is an  
24 opportunity, if you believe that you can be better than or  
25 equal to, then you can take that road, but you have to be  
26 able to prove that.

27  
28 Q. You had in mind the system of setting standards  
29 through that mechanism rather than the regulation, which is  
30 really what I was speaking of?

31 A. Yes, yes. The trouble is there are too many  
32 standards. There are standard operating procedures, there  
33 are recognised standards, and it's the one that I picked up  
34 incorrectly. I apologise.

35  
36 Q. Just to be absolutely clear, so far as the Act and the  
37 regulations are concerned, I think you readily agree that  
38 that falls into the area of rigid compliance?

39 A. Well, after being chief inspector in Queensland and  
40 New South Wales - sorry, and then New Zealand, and  
41 enforcing those for a period of time, yes, they are  
42 inviolate, yes.

43  
44 Q. I think yesterday you were intending to emphasise the  
45 existence of what you called the multi-layer systems of  
46 mitigation of risk. Is that a theme of your evidence?

47 A. It is. If we have a look at methane and how we

1 control it, if you go back to the ERZ zone, the explosion  
2 risk zone, there are methanometers across there. So there  
3 is an alarm when it reaches 0.25 per cent, and we  
4 disconnect power when there's 0.5 per cent.

5  
6 If we move, then, into the coalface, on the  
7 coal-cutting machine, the shearer, there is an alarm given  
8 when the methane level reaches 1 per cent. At  
9 1.25 per cent, you withdraw power from the cutting drums.  
10 At 2 per cent, you cut power off the face or wherever you -  
11 and then there is the 2.5.

12  
13 So what I was trying to get to is that there is  
14 a gradation as we come through, so it gives you an  
15 opportunity all the way through those levels to make sure  
16 that you are picking up that there is a potential danger or  
17 potential hazard. The potential is there. It doesn't mean  
18 to say that there is a danger, but the potential is there,  
19 and you should pay close cognisance to how you are actually  
20 going to deal with that.

21  
22 Q. Quite apart from the measures that the legislation  
23 requires, we're talking here about mitigation of  
24 catastrophic risk, so that it would be absurd, wouldn't it,  
25 to place reliance on a single layer of mitigation?

26 A. Correct, yes. That's why there's multi-layers within  
27 the system, yes.

28  
29 Q. That obviously is intended, at the end of the day, to  
30 mitigate that risk so far as it is possible to do so?

31 A. Correct.

32  
33 Q. To summarise, what I would call perhaps the primary  
34 layer or level, there is the controlled ventilation  
35 supported by the gas drainage. That's your primary layer  
36 of mitigation; correct?

37 A. Yes. Just so we come back on that, one of the things  
38 that you do is you try and work out the gas content of the  
39 seam and the specific gas emission, what I call the gas  
40 load - in other words, the total gas make that you may or  
41 may not have within that area.

42  
43 Then there are a number of things that you can utilise  
44 to reduce that gas level. Ventilation is the first one.  
45 Then if you work out that the volume of gas will not be  
46 able to be catered for with that ventilation, then you look  
47 at pre-drainage and then you will look at post-drainage.

1 That may involve underground in-seam drilling or surface to  
2 in-seam drilling. It is all about, then, trying to reduce  
3 that total gas make to the least possible content.

4

5 Q. Understood. Those measures, can I suggest, comprise  
6 the first and foremost layer of mitigation for the  
7 management of methane?

8 A. Yes.

9

10 Q. And then to move to the next layer, there are the  
11 kinds of things that you have been speaking of, for  
12 example, the trip of power to the face?

13 A. Correct.

14

15 Q. I classify that as a secondary measure because it  
16 won't be called upon unless the gas reaches a certain level  
17 to actually effect that trigger; understood?

18 A. Yes.

19

20 Q. The trip of power is based on the sensor readings that  
21 feed to the machinery; am I right?

22 A. Correct.

23

24 Q. Something that perhaps hasn't been made much mention  
25 of, but you may be able to comment on it - is there  
26 a degree of lag time involved in the sensor recording  
27 a reading?

28 A. With the methanometer?

29

30 Q. Yes.

31 A. Milliseconds.

32

33 Q. You think?

34 A. Yes. There are two different things you use. One is  
35 the real-time monitoring, and dependent on distances they  
36 are pretty instantaneous. The other one that we use at  
37 times is a tube bundle system, and that's usually used more  
38 as a back-up to the real-time monitoring, and particularly  
39 within the sealed areas, there is a lag time on that  
40 because of the length of the tube back to the reading  
41 station. But the gas monitoring systems that we're talking  
42 about here on the face, yes, nanoseconds.

43

44 Q. Another measure within that secondary layer, can  
45 I suggest, is the requirement to remove workers to a place  
46 of safety once the gas reaches 2.5 per cent?

47 A. Correct.

1  
2 Q. And then to add to that, I suppose, you would say that  
3 such attempts as can immediately be made to identify the  
4 source and bring the gas back under control is part of the  
5 secondary layer of mitigation?

6 A. Correct, yes. Can I just say there, Mr Rice, one  
7 other thing. When I went home, I thought about our  
8 conversation yesterday. I took occasion to re-read the  
9 New Zealand legislation, which I was involved in rewriting  
10 as the chief inspector there. We actually mention  
11 2 per cent to withdraw people, which is in the New South  
12 Wales legislation, which is a lower level than here. But  
13 we don't mention the word "danger". It's about removing  
14 the people. Whilst the potential could be there, at that  
15 level it's not dangerous but could get to a level.

16  
17 Q. Talking about potential, isn't it?

18 A. Correct. And that's, I think, where I was maybe at  
19 odds with where you were coming from yesterday, yes.

20  
21 Q. In Queensland, of course, the legislation deems  
22 2.5 per cent to be dangerous, and that is what triggers the  
23 requirement to remove workers from the coalface to a place  
24 of safety?

25 A. Yes, and as we said yesterday, you should be doing  
26 a full investigation. Whether it is at 2 per cent in  
27 another jurisdiction or here, you have a level of gas that  
28 you need to be concerned about; you need to do a full  
29 investigation.

30  
31 Q. Can I suggest this to you: notwithstanding the  
32 existence of these layers of safety, any attitude within  
33 the industry that there is very little potential risk from  
34 a methane HPI because secondary layers of safety can be  
35 relied on to protect workers should be strongly resisted?

36 A. All I can say is being a manager of a mine for many,  
37 many years, if I found that was a culture at the mine, we  
38 would be having closed-door conversations. No way.

39  
40 Q. That attitude, as I've expressed it to you, is not one  
41 that you would have held as a mine manager or as chief  
42 inspector?

43 A. No, and in fairness, I can't think of too many places  
44 that I would have ever come across that attitude. Methane  
45 in general terms is dealt with in a professional and  
46 a concerning manner.

47

1 Q. To bring this back to your report, you are not in any  
2 part of that report looking to suggest, are you, that there  
3 is little potential risk from a methane HPI because of the  
4 existence of the layers of safety that you have described?  
5 A. No, and I think I've also explained in the report that  
6 I was encouraged by the level of detail through the LFI  
7 process at both Moranbah and Grasstree, the level that they  
8 went to to investigate, the rigour that they went through  
9 to investigate where the gas problem was, and the  
10 recommendations and the course of action they took to  
11 ensure it didn't happen again.

12  
13 Q. To come back to attitudes, the correct attitude is the  
14 one that you first described in your evidence, that there  
15 must be rigid compliance with both the statutory standards  
16 and, as they are reflected in these mines, PHMPs?

17 A. Yes. The level of 2.5 per cent is not a legal - the  
18 level of 2.5 per cent is a trigger point for you to remove  
19 people and to report it and investigate it.

20  
21 Q. You don't want it to get to 4 or 4.5 before you start  
22 to remove workers from the scene, do you?

23 A. You certainly don't.

24  
25 Q. Can I then take you to some parts of your report where  
26 you express certain opinions. Mr Operator, the report is  
27 TGA.001.001.0001. I want to go to page 11 of that. I've  
28 just brought up that part of your report, Mr Taylor, where  
29 you commence to give a description and reach a conclusion  
30 about, in this case, the first of the HPIs that you  
31 considered.

32 A. Moranbah North?

33

34 Q. Yes.

35 A. Yes.

36

37 Q. I'm not going to ask you about the circumstances of  
38 the event. We've already heard a lot of evidence about  
39 that. I just want to understand, really, the approach that  
40 you have taken in the final paragraph of that section,  
41 being the paragraph just above the heading "Grasstree".  
42 Just have a look at that. You reach a conclusion at the  
43 end of that paragraph that there was little danger  
44 involved. If we look at what precedes that, your  
45 conclusion seems to be based upon the effect of certain  
46 measures that you described falling within the category of  
47 the secondary level of mitigation that we discussed

1 a moment ago; is that right?

2 A. Yes.

3

4 Q. Would we be right to conclude that what you are saying  
5 there is really a commentary that the secondary systems  
6 were effective so that the inherent potential risk of an  
7 HPI was not realised on this occasion?

8 A. Yes.

9

10 Q. What you have said there, can I take it, is not  
11 intended to be any commentary on the proposition that there  
12 is inherent risk with a methane HPI?

13 A. I think as I explained yesterday, any methane around  
14 a coalface, there's a potential. What I'm getting to in  
15 here is if we have a look at what happened on that day in  
16 particular and the control measures that were put in place  
17 by the statutory official, the deputy or ERZ controller,  
18 I thought it was handled in a professional manner.

19

20 Floor breaks are a regular occurrence on a longwall  
21 face because of the stresses that are set up. So you will,  
22 generally speaking, have floor breaks along a coalface, and  
23 it is usually towards the back of the roof support or  
24 towards the back of the shield.

25

26 When that happens, and if there is a conduit to  
27 a lower seam or a gas reservoir some place that hasn't been  
28 effectively drained - and that can happen at times, and  
29 I can explain why that can happen - you will get  
30 a blow-through of gas. So the only way that you can  
31 control that, which was done by the ERZ controller, was to  
32 use the ventilation that flows along the face and direct  
33 all of that ventilation by brattice sail towards that  
34 issuance of gas. That then will dilute and render harmless  
35 the gas that is coming from there.

36

37 Q. I'm not so much interested in asking you, Mr Taylor,  
38 about the technical aspects of what was done.

39 A. Okay, sorry.

40

41 Q. It is really a question of your approach to what you  
42 have set out in your report.

43 A. Okay.

44

45 Q. You have already agreed with me, I think, that what  
46 you have done is come and look at the events as they  
47 unfolded by virtue of reports created after the event --

1 A. Yes.

2

3 Q. -- which described what happened and what the outcome  
4 was; correct?

5 A. Yes.

6

7 Q. Having reviewed all that, you have seen that the  
8 secondary measures that existed were effective, in your  
9 opinion, on that occasion so as to mitigate the actual  
10 danger to workers on that day?

11 A. In that particular instance, yes.

12

13 Q. The second part of what I was putting to you was that  
14 what you are saying there is not intended to detract from  
15 or even comment on the inherent risk, or the potential  
16 risk, to use the more correct word, inherent in a methane  
17 HPI?

18 A. Definitely not.

19

20 Q. You are not addressing that subject at all?

21 A. Definitely not. But just on that, I think the thing  
22 that really encouraged me through this, when I read the LFI  
23 that was generated after this particular event, going  
24 through the witness statements and the rigour and the level  
25 of detail that they went through in the investigation, that  
26 was encouraging because it really indicated that they were  
27 taking this seriously, they recognised the potential, and  
28 the recommendation was where they were going to do  
29 additional drilling with floor and roof touches, which  
30 hopefully then would eliminate that potential gas reservoir  
31 if that lower seam came closer to the middle seam.

32

33 Q. We've already heard a fair bit of evidence along those  
34 lines, which is why I didn't propose to ask you about it.

35 A. Fair enough, yes.

36

37 Q. As you've seen, I was more interested in the way in  
38 which you approached your task and what your prevailing  
39 attitudes are to that task. Okay?

40 A. The way I approach anything like this is that the  
41 first thing is compliance. So you are always looking to  
42 make sure that whatever happened is in compliance with the  
43 legislation. That's number 1.

44

45 Number 2, then, you start to look at if there was  
46 residual hazard or risk that wasn't effectively addressed  
47 by the legislation, what did the operation do to identify



1 that hazard and mitigate the risk that is associated  
2 therewith. Then the third thing is how did they go about  
3 getting back into production.  
4

5 Q. Could we just go forward, Mr Operator, to the next  
6 page. We will just take a couple more instances. You are  
7 turning here to the incidents at Grasstree. In the third  
8 paragraph of that section under "Incident 1", you express  
9 another view concerning the level of danger to the  
10 operation. Again, as the concluding words of that sentence  
11 indicate, you are relying for your conclusion on the  
12 effectiveness of the secondary systems that were in place?

13 A. Yes.  
14

15 Q. Again, you are not intending to comment on or minimise  
16 the potential risks involved in a methane HPI?

17 A. Definitely not.  
18

19 Q. Could we take it that that is the case in other parts  
20 of your report where you express conclusions about the  
21 existence of actual danger - it is not actually a comment  
22 on the potential associated with an HPI?

23 A. Correct.  
24

25 Q. More it is a comment on how you would view that the  
26 secondary systems worked in the instances that you were  
27 asked to consider?

28 A. If you want to describe them as secondary - I mean,  
29 it's a system.  
30

31 Q. I call it secondary because they are not going to be  
32 called on until your primary systems fail.

33 A. Okay, that's a fair comment.  
34

35 Q. Is that reasonable?

36 A. That is, but it's a system. But, yes, I accept where  
37 you are coming from.  
38

39 Q. You might not use that terminology?

40 A. No, but I know what --  
41

42 Q. You call it a multi-layered system?

43 A. Yes.  
44

45 Q. That probably covers it, but just for completeness,  
46 could we go to page 15, Mr Operator. At the very  
47 conclusion of your report, you express a general view of

1 the HPIs that you considered, and can I suggest once again,  
2 particularly in the last sentence of that, that you are  
3 referring there to the operation, in the instances that you  
4 have considered, of the mitigation systems that were in  
5 place and that they seemed to work effectively?

6 A. Correct.

7

8 Q. With a view to mitigating danger to the workers?

9 A. Correct.

10

11 Q. But again, as you have already agreed, you are not  
12 intending there to make any comment on the potential  
13 associated with a methane HPI?

14 A. I fully agree, yes.

15

16 MR RICE: Thank you. Thanks, Mr Martin.

17

18 THE CHAIRPERSON: Mr Roney, anything?

19

20 MR RONEY: No.

21

22 THE CHAIRPERSON: Mr Trost, anything?

23

24 MR TROST: Yes.

25

26 **<EXAMINATION BY MR TROST:**

27

28 MR TROST: Q. Mr Taylor, may I just introduce myself.  
29 I am counsel for one of the injured workers that was  
30 unfortunately injured at Grosvenor on 6 May, Mr Mulholland.  
31 I'm not sure if you are aware of his name, but I'm counsel  
32 for him. I would just like to clarify a couple of things  
33 that you said to my learned friend Mr Rice QC yesterday.  
34 You mentioned that there were all sorts of potential  
35 failures that could lead to an exceedance of methane above  
36 the 2.5 per cent?

37 A. Can I just interrupt. I know nothing of Grosvenor.

38

39 Q. I appreciate that. I'm not going to turn to that  
40 specifically. It's just more in general, for the purpose  
41 of today.

42 A. Fair enough.

43

44 Q. You did mention that there were all sorts of potential  
45 failures that could line up and cause a 2.5 per cent  
46 exceedance at a mine?

47 A. Potentially, yes.

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Q. You used the words "all the cherries line up".

A. Mmm-hmm.

Q. You mentioned that there could be a sudden fall within the barometer, an overhang in the waste, so is it correct, then, that you are not always going to achieve the 2.5 per cent level?

A. There is a distinct possibility that you will exceed 2.5 per cent at some stage. The goal, of course, is to keep it below there, but, as I say, if in all of these systems you have in place there is a mechanism within there that doesn't quite work - and bear in mind some of the stuff that we're talking about here is not a science, it's an art, because we're actually dealing with non-homogenous rock. So if you've got a layer, and I think it was described by one of the previous witnesses, for example - the question was asked by Mr Clough if you can bring your gas holes closer together. Sometimes that will work, sometimes it won't, because there will be abnormalities within the strata that could cause a problem.

When you are doing some of these very long holes, surface to inseam or underground inseam drainage holes, because you have actually drilled through the ground again, you can have a blockage within that hole, so the hole is not as effective as it normally would be, so it fills up with fines. Then when you have a little bit of stress around that hole, these fines move. Then all of a sudden, you have a surge of gas that has been blocked behind that. So there is a number of issues within there, and if they all line up at the same time, then you may well have that exceedance.

Q. Now, I won't take you to the transcript from yesterday, but you said that such occurrences shouldn't be accepted in the industry, the exceedances, and that they should be kept as low as possible, even eliminated if at all possible?

A. Correct.

Q. These should be a rarity, when these circumstances line up; is that correct?

A. Yes.

Q. You said that if 2.5 per cent is the mandated figure, then you should investigate why there has been an

1 exceedance of that 2.5 per cent?

2 A. Yes.

3

4 Q. But you also say that 2.5 per cent may not be  
5 dangerous - you didn't like the use of the term  
6 "dangerous" - because there is an array of other measures  
7 in the systems of control; is that correct?

8 A. 2.5 per cent of methane is not a danger within itself.  
9 It's the potential within there that it may go higher. And  
10 the other thing, too, about methane, it's non-toxic, it's  
11 non-respirable.

12

13 Q. Sure. You also mentioned that you should investigate  
14 to determine why that exceedance has occurred over the  
15 2.5 per cent?

16 A. And the legislation requires you to do so.

17

18 Q. Absolutely. Presumably one of the purposes of that  
19 investigation is to determine whether that 2.5 per cent was  
20 in fact dangerous?

21 A. Or had the potential to be, yes.

22

23 Q. Is it correct, then, you won't necessarily know  
24 whether that 2.5 per cent exceedance was dangerous or had  
25 the potential to be dangerous until you have done that  
26 investigation?

27 A. No, no. Because the methanometer continues to read,  
28 you will know the maximum level that was achieved. For  
29 example, in all of the incidents that I was asked to look  
30 at, at no time did it come anywhere near the explosibility  
31 limit. I think the highest was about 4.1, but the majority  
32 were just over the 3 per cent mark and for a very, very  
33 short period of time.

34

35 Q. But you did acknowledge, as well, that any level is  
36 undesirable?

37 A. Yes, yes.

38

39 Q. And could still ignite even at lower levels?

40 A. Yes, yes.

41

42 Q. As a result of these investigations, might you then  
43 note it as an incident of over 2.5 per cent and decide  
44 that, well, actually, we're not in full control there, and  
45 assess the things like ventilation systems and your  
46 drainage systems? Would you reassess those aspects of your  
47 control systems as a result of an exceedance of

1 2.5 per cent?

2 A. When I went through the LFIs, that's exactly what the  
3 two operations did. They looked at it, analysed it and  
4 then, as I said, if we discuss, say for example, Moranbah,  
5 they took another flight plan - sorry, the detail of where  
6 the drill strings go, to actually do touches floor and  
7 bottom to ensure that they were degassing that lower seam.

8

9 With Grasstree, for example, they put additional  
10 blowers on the surface of the gas holes to ensure a greater  
11 flow and started to monitor the flows. With the one that  
12 caused them most of the problems where one of the  
13 methanometers was, they set up additional systems of  
14 ventilation to make sure that that gas stream, the goaf  
15 stream, was effectively controlled. So yes.

16

17 Q. So you look at all sorts of measures. You mentioned  
18 there that you might install other sensors as well. Would  
19 that be another possible measure?

20

21 A. That's what I used to do as a mine manager, yes.  
22 Obviously you comply with the legislation. Then if you  
23 have a concern with respect to a goaf stream or there may  
24 be additional gases being given off some place, you would  
25 place your sensors where you considered there may be  
26 a risk. That's exactly, for example, what - which I was  
27 very pleased about, if we have a look at Grasstree, they  
28 left that monitor where it was because they recognised that  
29 it was picking up levels of methane. So they didn't remove  
30 it.

30

31 Q. Might you also consider production rates? We know  
32 that production, of itself, causes releases of methane.  
33 Might you consider changing those production rates as well?

34

35 A. Yes, there's a number of things. One of the biggest  
36 problems we have right now in the industry where this gas  
37 is coming from - over the years, we've steadily grown from  
38 5,000 tonnes a day from a longwall and thinking that was  
39 a world record, to longwalls that are doing 50,000,  
40 60,000 tonnes. So if you take a block of coal that has,  
41 say - you've reduced the gas level to 5 cubic metres  
42 a tonne, so when you produce that one tonne of coal, there  
43 are 5 cubic metres you are releasing into the - so, yes.  
44 So depending on the speed of the shearer through the face -  
45 and that's why you now link your methanometer back into the  
46 shearer speed, particularly when it comes towards the  
47 tailgate end.

1           There are other things you can do, like going from  
2 bi-directional cutting to uni-directional cutting. And  
3 there are a number of coal mines I know that once you reach  
4 a certain tonnage for the week --

5  
6 Q.   And you covered a lot of those in your report, those  
7 sorts of measures.

8 A.   Yes.

9  
10 Q.   The Queensland legislation, as you have acknowledged,  
11 deems the 2.5 per cent to be a dangerous level.  
12 I understand that you don't necessarily agree with that,  
13 but --

14 A.   Far be it from me to argue with the legislation.

15  
16 Q.   Absolutely. However, you also mention that 2 per cent  
17 is mandated in other jurisdictions, including  
18 New Zealand and New South Wales.

19 A.   Two per cent, yes.

20  
21 Q.   Is the 2 per cent level too low, in the sense that if  
22 2.5 per cent is rarely dangerous, a little over 2 per cent  
23 is probably never dangerous?

24 A.   No, look, methane is always a concern. You have to  
25 have a figure some place where you consider it necessary to  
26 withdraw men to ensure safety, whether that's 2 per cent or  
27 2.5 per cent. Okay? So it's a level. As I said  
28 yesterday, is 2.48 per cent more dangerous than  
29 2.5 per cent? So there's a level, and what that's doing is  
30 saying when you get - come back a bit.

31  
32           At 1.25 per cent, we drop the power off the cutter  
33 heads. At 2 per cent, power goes. Then you come to the  
34 next step, which is to then withdraw your men from  
35 a potential that it could go higher, and there may be  
36 something that they do in that area that could cause  
37 a friction or ignition. So you remove your men completely  
38 from that area - men or women - whether it's 2 per cent or  
39 2.5 per cent. That's a necessary safety precaution to  
40 ensure that you minimise wherever you can.

41  
42 Q.   Is it more of a safety precaution or is it  
43 a regulatory requirement, because if it is a safety  
44 precaution --

45 A.   Well, in this instance, it is a very - it's  
46 a regulatory requirement based on sound mining practice.

47

- 1 Q. But if 2 per cent is a safety requirement in other  
2 jurisdictions, couldn't there be potential in Queensland,  
3 as well, that 2 per cent is also deemed - you might need to  
4 withdraw men as a safety precaution?  
5 A. Two per cent, we cut the power off.  
6
- 7 Q. I understand that, but might you increase your  
8 precautionary measures, your secondary measures?  
9 A. I can't see that it's going to make a huge amount of  
10 difference, but you could. I don't see it making such  
11 a difference.  
12
- 13 Q. In Queensland, obviously, if it exceeds 2.5 per cent,  
14 you launch an investigation, and you have mentioned in your  
15 report and your testimony that that ought to be done and  
16 has been done at the mines that you have reviewed?  
17 A. Yes.  
18
- 19 Q. Now, in New South Wales and in New Zealand, at  
20 2 per cent you are required to investigate that, and you  
21 have mentioned earlier today --  
22 A. No, no, you're required to withdraw men.  
23
- 24 Q. Sorry, the 2 per cent mandated requirement in  
25 New South Wales?  
26 A. Would be a reportable incident. In New Zealand, not.  
27 You just withdraw the men.  
28
- 29 Q. But you mentioned earlier today that you would  
30 investigate where there has been an exceedance in those  
31 jurisdictions as well?  
32 A. Correct.  
33
- 34 Q. So might there be instances, even in Queensland, where  
35 although the requirement says 2.5 per cent --  
36 A. Can I say also - look, come back. As a mine manager,  
37 if I was continuing to have the power cut from the face at  
38 2 per cent, never mind the 2.5 per cent, I would be working  
39 out why that shearer is not working, because we continue to  
40 have these gas exceedances and we continue to lose power.  
41
- 42 Q. That would obviously lower production as well?  
43 A. Well, two reasons, yes. You don't want to be losing -  
44 look, a longwall face is going to lose about 2,000 bucks  
45 a minute if it's stopped, so you're not going to do that  
46 willy-nilly. But the other thing is, yes, you want to make  
47 sure, number one, safety of the men, because you want to

1 know why your system - as explained by Mr Rice previously -  
2 is not handling that level of gas. So, yes, you are going  
3 to go look for it.

4  
5 Q. And also then to determine what steps might need to be  
6 taken to avoid those further exceedances?

7 A. Yes, yes.

8  
9 Q. If that's the ideal process after there has been an  
10 exceedance, can I take you back to the process before you  
11 even get to operating. I assume that there are studies of  
12 the mine site that take place beforehand and that there is  
13 presumably - you study the strata where the coal seam is  
14 located, and then there is planning and design of this  
15 underground operation before you even sink a drill into the  
16 ground?

17 A. Yes, yes.

18  
19 Q. Presumably, there is modelling of the gas controls?

20 A. Yes, I don't know if you heard the evidence the other  
21 day from the CEO of Anglo, but, yes, they are difficult  
22 calculations, again, because you are dealing with  
23 unquantifiable issues relative to the strata. But, yes,  
24 you will run it through and you will put a factor on top of  
25 that, because you know that could be a little bit wrong.  
26 Yes, there is a lot of detailed work that goes into this.

27  
28 Q. Sure. Part of that process before you even get  
29 underground is pre-drainage, before you actually send  
30 workers down?

31 A. Dependent on the gas content of the seam.

32  
33 Q. Well, regardless of whether it is pre-drainage or  
34 ventilation or other systems, the design is to remove a lot  
35 of the methane before you send workers down to start  
36 shearing the longwall; is that correct?

37 A. I don't want to be pedantic, but a lot of the gas  
38 drainage that you will do is underground in-seam, so you  
39 develop insets first, and then you will do the drainage  
40 from underground.

41  
42 If you need longer-term - and this will depend on the  
43 permeability of the gas. Some gases release more quickly  
44 than others. If it's very tight coal or if the  
45 millidarcies that are measured - it's according to Darcy's  
46 law. If the millidarcies are very low, like, say, around  
47 about 2 or 1 or less, then you would probably look at



1 surface to inseam to give you a longer lead time. Okay?  
2 So all that is taken into consideration.

3  
4 The main reason for gas drainage, by the way, is the  
5 fear of outburst. That's the reason why it was initially  
6 developed. So you drop the level of gas content below the  
7 threshold limit once you have worked out what the threshold  
8 limit is. The additional benefit to that is that it then  
9 further reduces the gas content to make it a much more  
10 mineable and safer proposition.

11  
12 Q. Initially that's based on modelling, but, as you say,  
13 there might be things that you don't --

14 A. From a greenfield site, it's all modelling. From  
15 a brownfield site, then clearly after you have been in the  
16 seam for a period of time, you will work out the best  
17 angles and the best length of hole to drill to maximise the  
18 recovery of gas, yes.

19  
20 Q. And is that moving from one longwall to the next  
21 longwall?

22 A. Correct.

23  
24 Q. You learn from the previous?

25 A. Yes. If you have a look at - as I say, I don't know  
26 what they do at Grosvenor, but I know that at the mines  
27 that I managed and I know that when I've looked at Moranbah  
28 and Grasstree, they actually have a review between one  
29 longwall and the other, and then there is a decision based  
30 on what happened in the previous longwall block, to the  
31 drilling pattern inseam, and also to the distances of the  
32 goaf wells based on the effectiveness of the previous one.  
33 Okay? So there is a continual review process to try and  
34 maximise the reduction of gas.

35  
36 Q. When you are moving from one longwall to the next,  
37 that's still based on assumptions from the previous  
38 longwall that might not in reality turn out to be correct  
39 in the next longwall?

40 A. You're getting pretty close.

41  
42 Q. You are getting close?

43 A. You are getting close.

44  
45 Q. But there can be variances?

46 A. Because of the geotechnical nature of the strata, yes,  
47 there could be. There could be variances within the one

1 block. But if you have a detailed drilling program, an  
2 exploration program, you have a pretty fair idea. So over  
3 a period of time in the life of a mine, you are getting  
4 pretty accurate as the mine advances.  
5

6 Q. So if you are moving particularly from one longwall to  
7 the next and you think that it is very accurate, and  
8 perhaps you even improve if you have had a tough experience  
9 with one longwall and you are moving to the next, you might  
10 increase those controls or increase the drainage to try to  
11 improve the situation?

12 A. Yes, you would.  
13

14 Q. If it turns out that that still hasn't had a positive  
15 effect, might you engage in further controls before you  
16 actually start operations on that longwall?

17 A. If there was a fear that your controls weren't  
18 effective, then, yes, you wouldn't start the longwall.  
19

20 Q. So might you ever just work out that you would have to  
21 abandon that seam because, no matter what you are doing, it  
22 isn't affecting positively the gas quantities?

23 A. I've never known of that as a proposition.  
24

25 Q. Never?

26 A. It could possibly happen, but with the level of  
27 effectiveness that we have at the present stage with gas  
28 drainage, gas wells, surface to inseams, I --  
29

30 Q. You could perhaps just drain it for a lot longer or do  
31 a lot more of these other measures that you have talked  
32 about?

33 A. Yes. For example, if we talk about the permeability,  
34 some longwalls drain very quickly; but others, the coal  
35 becomes tighter and you may go from, say, a six-month lead  
36 time to a nine-month or a 12-month lead time, dependent on  
37 a number factors.  
38

39 Q. That would primarily be driven by safety, I assume, as  
40 well as the requirement under the regulation to keep it  
41 under 2.5 per cent, because if you are over 2.5 per cent,  
42 you are not allowed to operate?

43 A. All of the above, yes. All of the above.  
44

45 Q. Once you have started actual operations and shearing  
46 from the longwall, you are doing that with the ventilation  
47 systems and potentially drainage systems in place, all

1 based on the modelling of how much methane will therefore  
2 be produced and what will be a safe content and also what  
3 will keep it under the regulatory requirements; is that  
4 correct?

5 A. Yes, correct.

6  
7 Q. Production rates will also respond to that as well;  
8 you will keep those at a level that will tie in with these  
9 other controls?

10 A. Yes, with a longwall, the three things you want to do  
11 are: keep it level, keep it straight and keep it moving.  
12 You don't want to be stop/starting a longwall because of  
13 the stresses of it. So it's much better to, say, do  
14 100,000 tonnes a week consistently than to do  
15 200,000 tonnes one week and then nothing in the next week.  
16 So, yes, it's about that consistent movement.

17  
18 Q. And smoothing out that production level, so it is  
19 also assisting?

20 A. If you can.

21  
22 Q. Again, I put the same question to you: once you have  
23 already started the operations, might you reduce  
24 production - bearing in mind you want to keep that fairly  
25 smooth rate, but might you continually reduce production?

26 A. And, yes, I think you'd adjust your - if, for example,  
27 you were producing 150,000 tonnes this week, and because of  
28 the volume of coal you produced, you're going to be stood  
29 for two or three days next week, then you would look  
30 seriously to how you are going to even it out. You would  
31 also be looking at a whole bunch of things with regard to  
32 how effective has your pre-drainage been, how effective is  
33 your post-drainage. So, yes, there is a suite of things  
34 that you would be looking at, not just one factor.

35  
36 Q. And that - sorry. Anything else?

37 A. No, no.

38  
39 Q. That would be driven by an exceedance that occurs, and  
40 you therefore investigate it and work out what other  
41 controls you might put in place or improve on to get it  
42 under the 2.5 per cent?

43 A. Yes, correct.

44  
45 Q. You would expect that to happen fairly quickly after  
46 an exceedance?

47 A. I would think so, yes.

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Q. Because you want to keep production going at a safe rate within the regulation?

A. Well, you want to make sure that you are not continually having gas-outs, yes, more than anything else.

Q. I've only got one final question. You mentioned the requirement to extract workers when it gets to the 2.5 per cent in Queensland.

A. Yes.

Q. It is 2 per cent in New South Wales and 2 per cent in New Zealand?

A. Correct.

Q. Could you conceive of any circumstances where either because of the volatility of a mine in total or a particular longwall or because of the design of the mine or where the workers are in fact located, you might consider extracting those workers at a lower level than the 2.5 per cent or, indeed, 2 per cent in other jurisdictions?

A. It seems to have worked fairly well so far. I think one of the things that was being discussed previously in the inquiry was relative to remote operation of a longwall. That's one way you could potentially remove people from the working face. You are not going to remove them from underground because of all the services that have to go on. But there's no reason why you can't remotely operate a longwall so that there is no-one on the face.

Q. But, sorry, just to answer my question, you wouldn't conceive of a situation where, on a particular site, you might think of putting in place a control to remove them at an earlier level than the 2.5 per cent in our jurisdiction or 2 per cent in other jurisdictions?

A. I can't conceive of a situation. There is still a fair margin of leeway there between 2.5 per cent to 5 per cent or from 2 per cent to 4.7 per cent, if we're going to be accurate. If you were that concerned, you wouldn't have your men there, anyway. So if I thought that we were going to have a problem of that nature, yes, I don't think I would want to be there, no.

MR TROST: Thank you, Mr Taylor. No other questions.

THE CHAIRPERSON: Thank you, Mr Trost. Mr Crawshaw?

1           **<EXAMINATION BY MR CRAWSHAW:**

2  
3           MR CRAWSHAW:    Q.    I just want to clarify one thing,  
4           Mr Taylor.  The regulation you are referring to - I think  
5           it is regulation 366 - says that the 2.5 per cent level of  
6           methane is taken to be dangerous; is that right?

7           A.    That's the wording, yes.

8  
9           Q.    How long has that regulation, or at least the content  
10          of that regulation with the level of 2.5 per cent, been in  
11          existence, to your knowledge?

12          A.    I think that's been in there since Mount Mulligan, or  
13          the aftermath of Mount Mulligan, which would be the 1926  
14          Act, I think.  As I explained yesterday, Mr Crawshaw, one  
15          of the reasons for that figure is because of the use of an  
16          oil flame safety lamp.

17  
18          Q.    You said to my learned friend appearing for  
19          Mr Mulholland, who was just asking you some questions, that  
20          it would be far from you to take issue with that  
21          description of the 2.5 per cent being taken to be  
22          dangerous?

23          A.    I'm sorry, could you repeat that?

24  
25          Q.    I thought you said to my learned friend just a moment  
26          ago that it would be far be it from you to take issue with  
27          that 2.5 per cent level being taken to be dangerous?

28          A.    I'm not too sure I understand what you are asking me.

29  
30          Q.    Well, are you taking issue with the description in the  
31          regulation of the 2.5 per cent being taken to be dangerous?

32          A.    I must hard of hearing.  I'm having real difficulty  
33          hearing you, I'm sorry.

34  
35          THE CHAIRPERSON:    Hang on, Mr Crawshaw.

36  
37          Q.    I think what you are being asked is, in relation to  
38          what you said to Mr Trost a little moment ago, that it  
39          would be far from you to question the statutory regulation,  
40          or something of that nature.  I think you are being asked  
41          about that.

42          A.    Oh, sorry.  Sorry.  Yes, if that's what the  
43          legislation says, then we comply.

44  
45          MR CRAWSHAW:    Q.    Of course you comply, but do you take  
46          issue with the description of 2.5 per cent as being taken  
47          to be dangerous?

- 1 A. Yes, I think I understand you now, yes.  
2  
3 Q. You do take issue?  
4 A. I don't believe - yes, I don't believe the word  
5 "danger" is correct in that term, because it's not  
6 dangerous. The potential for it to go to a higher level,  
7 yes; but 2.5 per cent in itself is not dangerous.  
8  
9 Q. So you think it should say "2.5 per cent has the  
10 potential to be dangerous"?  
11 A. I think it just should say if you reach 2.5 per cent,  
12 it's a high potential incident which you will report to the  
13 inspectorate and you will fully investigate.  
14  
15 Q. But for those who have to comply with this regulation,  
16 don't you agree that it is important for them to be told  
17 why the 2.5 per cent requires compliance?  
18 A. If I've got to explain to a guy with a first class  
19 mine manager's ticket that that's a problem, then we've got  
20 a bigger issue in the industry.  
21  
22 Q. Being dangerous doesn't mean that the danger has to  
23 actually be manifested, does it?  
24 A. No, I think the word that Mr Rice was trying to come  
25 to before was "potential", and I accept the fact that the  
26 potential may be there for it to go higher. So, as I was  
27 explaining before, I have no problem with there being a set  
28 point. You need to have an arbitrary figure some place  
29 that says that if you reach this level, you will do certain  
30 things. If that level is 2.5 per cent, then I'm fine with  
31 that, or if it is 2 per cent, I'm fine with that, as long  
32 as there is a point some place that you say that if you  
33 have reached this level, you will do certain things. One  
34 of those is to remove your men from the potential, and the  
35 other one is that you will conduct a full and thorough  
36 investigation of why you have reached that level of  
37 methane.  
38  
39 Q. This view you have of the regulation and the  
40 description of 2.5 per cent as dangerous, which you say has  
41 been around for about 100 years - have you ever taken issue  
42 with it before?  
43 A. I just did what I had to do, which was to withdraw the  
44 men and conduct a full and accurate investigation. I've  
45 never really, until it was placed to me the other day,  
46 thought too much about the word "danger". It was the  
47 trigger point for me to take action, as a mine manager, to

1 ensure that I've thoroughly investigated that situation.

2

3 Q. What about when you were a chief inspector - did you  
4 take issue with the wording of the regulation?

5 A. Well, I changed the wording in the New Zealand  
6 legislation.

7

8 Q. I'm talking about this regulation.

9 A. No, it never came up, Mr Crawshaw. But when we did  
10 the New Zealand legislation, that word was removed. But,  
11 look, it's a word. I wouldn't really get too hung up on  
12 it, as chief inspector or as a mine manager. The most  
13 important thing for me is that there is an arbitrary figure  
14 that is set that says that when that figure is achieved or  
15 realised, you will withdraw your men to safety and you will  
16 carry out a full and thorough investigation, and I'm happy  
17 with that.

18

19 Q. You can be assured I'm not hung up on it, Mr Taylor.  
20 I'm just asking you about your answers that appeared to  
21 draw a distinction. Thank you very much.

22 A. I accept that. I accept that.

23

24 MR CRAWSHAW: Thank you very much, Mr Chair.

25

26 THE CHAIRPERSON: Thank you, Mr Crawshaw. Ms Holliday?

27

28 **<EXAMINATION BY MS HOLLIDAY:**

29

30 MS HOLLIDAY: Q. Mr Taylor, do you maintain the evidence  
31 that you gave yesterday that the prescriptive requirements  
32 in the regulation are aspirational rather than achievable?

33 A. I will give you the same answer as I gave yesterday.

34

35 Q. The answer is that you do maintain the evidence that  
36 you gave yesterday; is that correct?

37 A. Yes.

38

39 Q. You are very much an outlier in that opinion in this  
40 Board of Inquiry, Mr Taylor. Surely you must accept that  
41 if a mine has done adequate pre-drainage and has adequate  
42 ventilation systems in place, then they should not have  
43 a gas exceedance?

44 A. I don't accept that, no. As I said to you, you can  
45 think you have the most effective systems around, and there  
46 may be an issue with a gas hole, there may be an issue with  
47 an underground in-seam hole that could block, there may be

1 a movement in the strata above you, the goaf may hang up,  
2 and then you will have a sudden exceedance.  
3

4 Q. Let's break that down. In terms of the answers that  
5 you have just given, in terms of foreseeable events -  
6 exclude those from your answer. In other words, if you are  
7 looking at foreseeable events, then with pre-drainage and  
8 ventilation systems being adequate, you shouldn't have gas  
9 exceedances, Mr Taylor?

10 A. But the legislation does foresee that. The  
11 legislation actually says that you can have a short  
12 exceedance --  
13

14 Q. Putting that to one side. Mr Rice put that to one  
15 side yesterday in terms of the one exception under the  
16 regulation. So put that out of your mind.

17 A. Yes.  
18

19 Q. And hopefully you did when you gave the answer that it  
20 was aspirational, not achievable. So going back, then, to  
21 foreseeable events with adequate gas drainage and adequate  
22 ventilation systems, a mine should not have gas  
23 exceedances; do you accept that?

24 A. I'm trying not to be glib, Ms Holliday. In a perfect  
25 world, everything would work. The issue that we have is  
26 we're not dealing with a perfect world in an underground  
27 coal mining environment. Things unfortunately, because of  
28 the way mother earth behaves, can at times - not regularly,  
29 I accept - but if you ask me can you 100 per cent guarantee  
30 with everything in place --  
31

32 Q. That's not the question that I asked you.

33 A. Well, I think it is.  
34

35 Q. No, it's not.

36 A. Okay.  
37

38 Q. The question that I asked you was in relation to the  
39 foreseeable events, with adequate pre-drainage or adequate  
40 drainage and adequate ventilation systems, then gas  
41 exceedance should not occur?

42 A. When you design the mine or you design that longwall,  
43 all of your design techniques relative to methane drainage,  
44 ventilation, are all designed and take into consideration  
45 reducing the quantity of gas that's liberated into the  
46 working place to the barest minimum. You design that, so  
47 you try and achieve that. That's what you are trying to



1 achieve from the very beginning.

2

3 However, every now and again, something may happen  
4 that will put you over the limit. That's why you're  
5 designing it, I accept that, so you are designing  
6 everything that you can see that's foreseeable. So you put  
7 all of that into the sausage machine, and you hope it comes  
8 out the other end as a perfect sausage. But every now and  
9 again, something could go wrong. As I said, you can have  
10 a gas hole that blocks because there is a collapse of the  
11 hole --

12

13 Q. The question I asked you is in relation to foreseeable  
14 events.

15 A. And that's what I'm trying to say. When you design  
16 it, you are trying to bring everything you can to  
17 a foreseeable level based on experience, so you design your  
18 whole ventilation/gas drainage network to ensure - never  
19 mind 2.5 per cent; you don't want it to even reach  
20 2 per cent, because it is going to knock your power off.  
21 So you are really trying to minimise the gas level. No-one  
22 designs to bring it up to 2.5 per cent. You try and reduce  
23 it to the barest minimum.

24

25 Q. Mr Taylor --

26 A. I'm obviously not answering your question.

27

28 Q. No, you are not giving me an answer to the question,  
29 because the answer to the question is in relation to  
30 foreseeable events, adequate gas drainage and adequate  
31 ventilation systems, that if those three things operate,  
32 then you shouldn't get gas exceedances?

33 A. If those things operate to the design level, no, you  
34 shouldn't.

35

36 Q. If it is then the unforeseeable events that cause gas  
37 exceedances, the number of events that are unforeseen  
38 reduce - the number of times they occur. So, for example,  
39 in relation to an HPI, you have an HPI in the canopy  
40 shield, you learn from that incident, and it shouldn't be  
41 repeated again; you accept that?

42 A. I see where you are coming from now. My apologies,  
43 yes. So if all the foreseeable events - but there is  
44 a possibility you may have, and then you fully investigate  
45 what went wrong.

46

47 Q. In order to ensure that you don't have a repeat of

1 a gas exceedance with the same root cause?

2 A. Correct.

3

4 Q. So in relation to foreseeable events, if adequate gas  
5 drainage has been done and you have adequate ventilation  
6 systems, it is not aspirational; it is achievable, isn't  
7 it?

8 A. The way that you have phrased that, yes.

9

10 Q. Mr Taylor, if I can take you to your statement,  
11 TGA.001.001.0001, at 0007, and it is the last dot point on  
12 that page. In relation to the "Direction of mining" dot  
13 point that you have there, you are effectively saying  
14 there, aren't you, that the risk of methane accumulation in  
15 the tailgate is greater at Moranbah than Grasstree?

16 A. Given the buoyancy of methane, yes.

17

18 Q. So were you satisfied that Moranbah had controls in  
19 place that were adequate to address that risk?

20 A. From the permit to mine system that I looked at and  
21 the spacing of the holes, yes, I think it should have been  
22 under control, yes.

23

24 Q. Can I say, in relation to any of the questions that  
25 I ask you, if you weren't provided with sufficient  
26 information or it was outside the scope of what you were  
27 asked to consider, just let us know.

28 A. Thank you.

29

30 Q. If I can take you now to 0008, at "Extraction height",  
31 the first dot point there, you speak about the fact that  
32 1 metre of coal is left to protect the roof - this is at  
33 Moranbah - that could result in some gas being generated in  
34 the goaf area from the face coal. Do you accept that that  
35 introduces a risk of spontaneous combustion in the goaf?

36 A. Most definitely, yes.

37

38 Q. Were you satisfied that there were adequate controls  
39 in place at Moranbah to address that issue?

40 A. I went through the principal hazard management plan on  
41 spontaneous combustion, had a look at that whole system,  
42 where the monitoring points were, and I was satisfied from  
43 the information I saw that that was well under control at  
44 Moranbah, yes.

45

46 Q. Mr Taylor, I'm not sure how much of the evidence of  
47 the inquiry you have heard or sat through --

- 1 A. Some of it.  
2
- 3 Q. -- but you must have been here for Mr Mitchelson's  
4 evidence, because you referred to it, or at least you have  
5 heard of it?  
6 A. I heard some of it.  
7
- 8 Q. There was at least a project in place with the aim of  
9 Moranbah achieving 24 million tonnes per annum?  
10 A. I did hear that bit, yes.  
11
- 12 Q. In terms of that aim of 24 million tonnes per annum at  
13 Moranbah --  
14 A. Was that Moranbah just on its own, or was that --  
15
- 16 Q. No, it was Moranbah and Grosvenor, but because you  
17 didn't assess Grosvenor, I'm limiting it to Moranbah.  
18 A. Okay, thank you.  
19
- 20 Q. Did you see this as safely achievable, given the gas  
21 strata and structure constants at Moranbah?  
22 A. I would have to have a look at that in greater detail.  
23 It's not something I really considered at the time.  
24 I would have to go away and have a look at how they were  
25 going to achieve that or what their plans were to achieve  
26 that.  
27
- 28 Q. In other words, you weren't tasked to consider that  
29 and you didn't have sufficient information to be able to  
30 answer my --  
31 A. No, no, no. I mean, that's 12 million tonnes per  
32 mine, I guess. Twelve million tonnes from a longwall mine  
33 these days is achievable, on its own --  
34
- 35 Q. You're saying that generally without any specifics at  
36 all in relation to --  
37 A. No, that's exactly it, no, so I can't comment on that.  
38
- 39 Q. Taking you back to 0008, and it is about halfway down  
40 the page, the paragraph that commences, "On reviewing the  
41 PTMs for Moranbah's L/W 604 and Grasstree's L/W 909", you  
42 make the point there that, in most instances, the in-situ  
43 gas content had been substantially reduced by well over  
44 50 per cent. I suggest to you that you are stating no more  
45 than the obvious, that that had to occur in order to be  
46 able to safely mine?  
47 A. Sorry, no. What you're looking for, as I explained to

1 our friend behind me - the principal reason to gas drain is  
2 to lower your gas, the in-situ content, below the threshold  
3 level.

4  
5 Q. That's right.

6 A. In a lot of instances, when I looked, for example, at  
7 both Moranbah and Grasstree, that was achievable very early  
8 in the piece, so that we were below the threshold level,  
9 but because the holes had been there long enough, they had  
10 further reduced the level of gas, so in a lot of instances  
11 the core samples were well below the threshold level.

12  
13 Q. Does that mean, then, that on the basis of the opinion  
14 that you have just expressed, they had excess reserves by  
15 way of gas drainage?

16 A. No, I wouldn't say excess. As I said, you drill to  
17 drop the in-situ content below that threshold level. The  
18 added benefit to that is it reduces your gas level further,  
19 so that when you are mining, you produce less gas and keep  
20 yourself below the mandated numbers within the legislation.

21  
22 Q. Yes, but then you would also have reserves of gas  
23 drainage, wouldn't you, because you have reduced it down by  
24 more than 50 per cent? So it is not just the levels, but  
25 you would have reserves to call upon for your gas drainage,  
26 if that's the reason why you say that they have done this?

27 A. No.

28  
29 Q. You would be aware, wouldn't you, that at one point  
30 someone asked for more gas drainage and they were told that  
31 they were at capacity?

32 A. Oh, sorry. They were talking there about gas wells.  
33 That's the gas that's in - that's post-drainage. What I'm  
34 actually talking about here is pre-drainage.

35  
36 From a pre-drainage perspective, as I say, what you're  
37 trying to do is - I will give you an example just off the  
38 top of my head. At Grasstree, the threshold level is about  
39 7.3 tonnes per cubic metre. Their in-situ content was  
40 around about 10 or 12 in this particular instance. In that  
41 particular one, they actually reduced it before they  
42 started mining, or within that permit to mine, to about  
43 3 cubic metres a tonne.

44  
45 Q. So you reject the suggestion, then, that they had to  
46 reduce the in-situ gas content by well over 50 per cent to  
47 safely mine?

1 A. No. All I'm saying is when I looked at the permit to  
2 mine, a lot of the holes had actually reduced the in-situ  
3 content to well below 50 per cent of what it originally  
4 was.

5  
6 Q. My first question, then, in this tranche, essentially  
7 said that the reason why they did that is no more than the  
8 fact that they had to do it to safely mine?

9 A. That's why you do it, yes, to safely mine, yes.

10  
11 Q. So the answer to my first question was "yes"?

12 A. Yes, yes.

13  
14 Q. In relation to ignition sources - this is at  
15 page 0009 and then over on to 0010 - you talk about the  
16 risk of spontaneous combustion at the bottom of page 9 and  
17 the top of page 10. In terms of the risk at Moranbah for  
18 spontaneous combustion, we've already assessed one of those  
19 risks because of the flow of methane into the tailgate.  
20 Isn't there another risk as well because of the overlying  
21 seams that report to the goaf, and this is basically what  
22 you're saying there at the bottom of page 9 and the top of  
23 page 10?

24 A. Yes.

25  
26 Q. Is your answer the same as what it was before, that  
27 you were satisfied that the controls in place were adequate  
28 to manage that risk of spontaneous combustion at Moranbah?

29 A. When I was chief inspector, we had a number of - we  
30 had a couple of issues at Moranbah that I recall very well.  
31 The improvement in their principal hazard management system  
32 and in their preparedness for a spontaneous combustion  
33 event was marked.

34  
35 Q. That didn't really answer my question, though. They  
36 might have had an improvement, but my question to you was  
37 whether you determined or considered that the controls were  
38 adequate for that risk?

39 A. No, they were adequate, and if they weren't, I would  
40 have put it in there that they weren't adequate. I was  
41 impressed with what they had.

42  
43 Q. Continuing on on page 10, under the heading of "Gas  
44 Exceedances", you indicate in the first substantial  
45 paragraph:

46  
47 *As I have indicated above, it is my*

1           *opinion, from the documentation I have*  
2           *reviewed that both Moranbah North and*  
3           *Grasstree have compliant, robust systems*  
4           *that strive to meet industry best*  
5           *practice ...*  
6

7           So it is the choice of words "strive to meet" industry best  
8           practice, rather than "meet", that I'm interested in. Is  
9           my question a matter of semantics and you meant to say that  
10          they actually meet industry best practice or that they are  
11          only striving to meet that practice?

12         A.    They meet industry best practice at the present sites.  
13         Best practice is a moving target. There are things that  
14         people are doing all the time. For example, Grasstree do  
15         something that I've never seen elsewhere, or they're  
16         starting to do elsewhere, where they use nitrogen to  
17         inertise the adjacent waste to reduce the volume of methane  
18         that may seep from that waste into - now, I've never seen  
19         that done before. I've seen nitrogen being used to control  
20         a spontaneous combustion outbreak, but I've never seen it  
21         used like that. So the techniques that are being used have  
22         moved and continue to move.

23  
24         Q.    Yes, but you gave a statement as at a date, and so  
25         therefore it has to be those industry practices as at that  
26         date that are relevant. You chose to use the words "strive  
27         to meet" rather than "meet". Were you intending to say  
28         that they met them or only that they are striving to meet  
29         them?

30         A.    Let me rephrase that. From the documentation that  
31         I was provided with, I am of the belief, to my knowledge  
32         and experience, that Grasstree and Moranbah North have some  
33         of the best systems that I've seen.

34  
35         Q.    Yes, but that again is not the question. The question  
36         is whether they are meeting industry practice, in your  
37         opinion, or whether they are striving to meet industry  
38         practice.

39         A.    How can I put it? They're up there with the best.

40  
41         Q.    Is that the closest I'm going to get to an answer to  
42         that question?

43         A.    Well, they're up there with the best.

44  
45         Q.    Finally, the last question is: is it your opinion  
46         that no further steps should have been taken to reduce the  
47         number of HPIs at Grasstree mine?

1 A. I think as I explained in my document, I had a concern  
2 that the placement of the canopy sensor should have been  
3 dealt with far quicker than it was, and the concerning  
4 thing for me is, when I read the LFI, which I thought was  
5 an excellent document, that they had all the answers. The  
6 question I had at the time: well, why didn't you do it  
7 sooner?  
8

9 Q. Other than that issue, you are satisfied that they had  
10 taken all appropriate steps to reduce further exceedances?

11 A. With that one caveat with regard to that zero, as they  
12 called it, the zero sensor, the canopy sensor. But, yes,  
13 for the rest of it, I thought - there was only one other  
14 one, if we're talking about minor things. That was the  
15 second exceedance, where the longwall had started and they  
16 hadn't ventilated the inbye end correctly, which was picked  
17 up by a deputy, another one of those controls, a physical  
18 controller, the deputy, and that was addressed there and  
19 then on the spot.  
20

21 Q. I did say it was the last question, but one more. In  
22 relation to what you say as controls, and you place great  
23 reliance on the fact that at 2 per cent, the power trips -  
24 there are many possible sources of ignition in a mine,  
25 aren't there, Mr Taylor?

26 A. Of course there are.  
27

28 Q. Cutting power to the mechanical equipment is only  
29 eliminating one of those possible ignition sources?

30 A. Correct. As I say, yes, there's a number of ones, and  
31 they have addressed a number with pipes, cables, lightning  
32 strikes - they've all been looked at.  
33

34 MS HOLLIDAY: I have no other questions, thank you,  
35 Mr Martin.  
36

37 THE CHAIRPERSON: Thank you. Ms Freeman?  
38

39 **<EXAMINATION BY MS FREEMAN:**  
40

41 MS FREEMAN: Q. Mr Taylor, at the start of your evidence  
42 yesterday, you were asked about your current role as  
43 president of the Mine Managers Association of Australia.  
44 You also have held a number of other roles in the coal  
45 mining industry, haven't you?

46 A. A number, yes.  
47

- 1 Q. Sorry?  
2 A. I said a number, yes.  
3  
4 Q. In your career, you have held a number of supervisory  
5 and management positions at coal mines; is that right?  
6 A. Correct.  
7  
8 Q. You have extensive experience in running longwalls?  
9 A. Correct.  
10  
11 Q. And, in particular, you have managed a number of what  
12 you would call gassy mines in Australia?  
13 A. Correct.  
14  
15 Q. Including the West Cliff Colliery with BHP?  
16 A. Yes.  
17  
18 Q. There you oversaw the first trial in New South Wales  
19 of SIS gas holes; is that right?  
20 A. I did.  
21  
22 Q. In 2008 you joined the Department of Mines and Natural  
23 Resources, as it was called then, as Chief Inspector of  
24 Coal Mines; is that right?  
25 A. I did.  
26  
27 Q. You held that role until you retired in 2013?  
28 A. Correct.  
29  
30 Q. During that time, as you have mentioned, you were  
31 seconded to New Zealand for a period of time?  
32 A. Correct.  
33  
34 Q. That was immediately after the Pike River disaster; is  
35 that right?  
36 A. Correct.  
37  
38 Q. Your role there was to be the chief inspector for  
39 their extractive industries?  
40 A. Yes, I had two roles there. One was to act as their  
41 chief inspector and also to set up what they called the  
42 High Hazard Unit within the Department of Labour, which  
43 then transferred into WorkSafe after the Royal Commission.  
44  
45 Q. That High Hazard Unit was a regulatory unit that you  
46 established in order to respond to some of the issues that  
47 arose out of Pike River?



- 1 A. Correct.  
2
- 3 Q. You also provided advice over a period of time to an  
4 expert review group, which then led to changes to the  
5 New Zealand legislation regarding coal mining and other  
6 areas of that industry?  
7 A. Correct. Correct.  
8
- 9 Q. In terms of your engagement to provide the report for  
10 this Board of Inquiry, you were provided with an extensive  
11 range of documents, weren't you?  
12 A. Correct.  
13
- 14 Q. And you were asked to apply your experience both as  
15 a manager of coal mines and longwalls and also your  
16 experience in the regulatory space to provide an  
17 independent assessment of those documents?  
18 A. That's correct.  
19
- 20 Q. And to provide independent advice or opinions about  
21 the issues that the Board is concerned with here?  
22 A. Correct.  
23
- 24 Q. And that's what you have done by virtue of your  
25 report?  
26 A. Hopefully, yes.  
27
- 28 Q. There are just a couple of amendments I think that you  
29 might need to make, Mr Taylor. They are only minor, but we  
30 should probably correct them for the record. Mr Operator,  
31 if we could bring up Mr Taylor's report - I apologise,  
32 I don't have the number. If we could go to page 5, which  
33 would be 0005, I think, please. Just in relation to  
34 Moranbah North there, Mr Taylor, you have listed some  
35 existing mining conditions and you refer to "longwall 808"  
36 in the fourth dot point?  
37 A. Yes, it should be 604.  
38
- 39 Q. So that should say "longwall 604"?  
40 A. Apologies.  
41
- 42 Q. If we could go to page 0013, Mr Taylor, just in the  
43 final paragraph on that page there, you refer in the third  
44 line to "shield 157" and also, a few lines down, "156".  
45 A. They should be "158" and "157", yes.  
46
- 47 Q. No. In fact, I think it should be "196" and "197".

- 1 Do you think that sounds right?  
2 A. There you go. Yes.  
3  
4 Q. In terms of where the particular shields were for the  
5 Grasstree canopy sensor?  
6 A. Yes, we're talking about the last and the penultimate,  
7 yes.  
8  
9 Q. Mr Taylor, you reviewed some safety and health  
10 management system documents as part of providing your  
11 report?  
12 A. I did.  
13  
14 Q. In terms of the materials that you have reviewed for  
15 Grasstree and Moranbah North, you were satisfied, weren't  
16 you, that, first of all, the safety and health management  
17 systems that they had in place were effective?  
18 A. Correct.  
19  
20 Q. They were robust systems?  
21 A. Yes.  
22  
23 Q. And had the appropriate controls in place to ensure  
24 safe operations at each mine?  
25 A. As they applied to the longwall and gas drainage of  
26 longwall, yes.  
27  
28 Q. You are aware, aren't you, that those systems have  
29 been audited under an independent review process?  
30 A. Yes.  
31  
32 Q. In relation to Grasstree, you refer in your report to  
33 a review in 2019, in terms of compliance with the  
34 legislation, by Reed?  
35 A. Correct.  
36  
37 Q. You are also aware, aren't you, that in 2017 there was  
38 a review in relation to the effectiveness of that safety  
39 and health management system?  
40 A. For Grasstree, yes.  
41  
42 Q. You reviewed those audit reports as part of your  
43 review?  
44 A. I did.  
45  
46 Q. There was nothing of concern from your point of view  
47 in relation to those audits?

1 A. No, there wasn't. Just so I can explain that,  
2 I looked at the overall, and I guess it was to give me  
3 a feel for the overall compliance with legislation. It was  
4 a vertical section, so I then drilled down specifically  
5 into the standard operating procedure for the longwall,  
6 which is required underneath the legislation, and then  
7 looked at the principal hazard management plans and the  
8 associated documentation with that to make sure that those  
9 were effective and they were to best standard in the  
10 industry, and they were.

11

12 Q. In fact, as part of that review, you were of the view  
13 that the standard operating procedures that you looked at  
14 for both mines were particularly commendable and amongst  
15 the best that you have viewed?

16 A. Correct.

17

18 Q. In particular, as they relate to gas management?

19 A. Correct.

20

21 Q. In terms of technical considerations, you were also  
22 satisfied from your review of the material that both  
23 operations have appropriately taken into consideration and  
24 effectively addressed those issues that you advocate as  
25 being best practice to manage gas emissions at a mine site;  
26 correct?

27 A. Correct. What I did, I guess, was to - what  
28 I considered to be, and the industry considers to be, the  
29 best practice with regard to gas drainage, so set these out  
30 first, and then you look at what the mine is doing against  
31 those, and they ticked all the boxes.

32

33 Q. As part of your review, you also looked at a suite of  
34 Anglo American corporate-level documents, didn't you?

35 A. I did look at some, yes.

36

37 Q. You were satisfied, weren't you, that Anglo have  
38 developed and implemented a high set of standards of  
39 operational requirements for gas management and coal dust  
40 explosions?

41 A. Yes. I mean, that one is fairly broad, obviously,  
42 because they are looking at a range of jurisdictions, so  
43 they can't be specific. But the standards that they were  
44 looking for, taking into consideration the broad range of  
45 jurisdictions, were of a high standard, yes.

46

47 Q. Anglo regularly utilise qualified technical

- 1 consultants who are leaders in their field, don't they?  
2 A. Yes, there was a couple of things I looked at there.  
3 One was the level of technical expertise within their own  
4 organisation. A lot of these individuals I have either met  
5 or have been present when they have given presentations for  
6 continuing professional development. And then I had a look  
7 at the consultants that they use - people like Roy Moreby,  
8 who is pre-eminent in his field. I think the question was  
9 asked before about how do you determine the gas load, and  
10 Moreby's probably one of the best in the world at doing  
11 that, so that gives you a degree of confidence that they  
12 are using the correct people to control the systems.  
13
- 14 Q. Just following on from that, Dr Roy Moreby has done  
15 a lot of gas modelling in relation to the Grasstree  
16 operation, hasn't he?  
17 A. To my knowledge yes, from what I can read, yes.  
18
- 19 Q. In relation to site level, in terms of the mining  
20 operations you have looked at for Moranbah North and  
21 Grasstree, there are also lots of very capable people  
22 engaged in technical roles at site level, aren't there?  
23 A. Yes. Yes, Grasstree in particular, they've got four  
24 first class mine managers on site.  
25
- 26 Q. That's very impressive, isn't it?  
27 A. I think it is. It's more than the department have  
28 got.  
29
- 30 Q. In terms of gas drainage at Grasstree, just generally  
31 speaking, they utilise both SIS and UIS in pre-drainage  
32 before they mine, don't they?  
33 A. Sorry, can you say that again?  
34
- 35 Q. Before they mine at Grasstree, they utilise SIS?  
36 A. They do, on some occasions yes.  
37
- 38 Q. And UIS is utilised --  
39 A. Primarily.  
40
- 41 Q. -- primarily as well. There is also some draining of  
42 the overlying Corvus seams as well?  
43 A. At times they have done that with the SIS, yes.  
44
- 45 Q. From what you have reviewed, Grasstree are continually  
46 looking for means to reduce gas wherever and however  
47 possible, aren't they?

1 A. Yes, they are.

2

3 Q. In terms of goaf drainage wells, there has been some  
4 discussion about the spacing of those, and at Grasstree  
5 they did trial them at 25 metres for a period of time, but  
6 they found that didn't particularly work for them. Do you  
7 have any views about the spacing of goaf drainage wells and  
8 where that should be at?

9 A. That's one of those things with different strata  
10 conditions and what have you. I hate to say this, but it's  
11 a hit and miss, it's a trial and error, really. They have  
12 trialled a number of distances. It's interesting, if you  
13 go back to their previous longwalls, they are learning all  
14 the time the best place to put it. As I explained  
15 previously, at the end of every longwall block, there is  
16 a complete review. In some instances, they have reduced  
17 the spacing, and they have also varied the distance from  
18 the rib line into the block itself to try to maximise. And  
19 now that they have actually gone ahead and these are all  
20 linked up to the Citect system, they can actually record  
21 the volume and pressure flows from those holes, so you get  
22 a better idea over a period of time, by analysis, of the  
23 best place to actually place these holes.

24

25 Q. Is it the case that it is simply a matter of moving  
26 them closer together to get more capacity, or is it more  
27 complex?

28 A. Possibly not, because they can interact against each  
29 other, so you end up taking a hole offline because of  
30 oxygenation. So, yes, it's a trial and error and it's  
31 analysis until you get it right.

32

33 Q. It is the case, isn't it, that effective gas  
34 management really arises by utilising a number of different  
35 techniques and processes rather than a single one?

36 A. There is no single panacea, no.

37

38 Q. And there is no magic bullet for managing gas?

39 A. No, no

40

41 Q. From your review of the material, it's fair to say  
42 that both Grasstree and Moranbah North consistently are  
43 reviewing what they're doing in terms of gas management?

44 A. From their documentation, yes, they are.

45

46 Q. They are consistently looking for ways to improve how  
47 they do that?

1 A. Yes, they are.

2

3 Q. As part of your review, you have looked at a number of  
4 LFI reports, or learning from incidents reports, that have  
5 been produced?

6 A. I have.

7

8 Q. In terms of the Anglo learning from incidents process,  
9 from what you have seen, what is your view on the quality  
10 of that process?

11 A. I think the LFI reports are - the rigour and detail  
12 that goes into them is excellent. The form 5A leaves  
13 somewhat to be desired, and I am pleased to hear through  
14 the witnesses that they are actually going to move that LFI  
15 into that form 5A. I think, to be truthful, some of the  
16 form 5As were a bit glib in how they responded to them, to  
17 be truthful. But the LFI process I thought was excellent.

18

19 Q. Now, there has been some discussion both yesterday and  
20 this morning about this level of 2.5 per cent that has been  
21 nominated in the legislation as the point at which you  
22 withdraw workers and take certain other steps. I think  
23 yesterday it was suggested to you that once you get to that  
24 2.5 per cent, you have no way of knowing how high it is  
25 going to go from that point onwards?

26 A. You don't, no.

27

28 Q. Therefore, that's the potential risk or danger that's  
29 inherent?

30 A. Yes, so you should be looking at the trend all the  
31 time. That's what you're looking for, is the trend; is it  
32 going up?

33

34 Q. The same could be said for 2.4 per cent methane,  
35 couldn't it?

36 A. Or 2 per cent.

37

38 Q. Just because methane is rising doesn't necessarily  
39 mean it is going to keep rising?

40 A. Correct.

41

42 Q. There are peaks and troughs?

43 A. Yes, and in fact if you have a look at all - I think  
44 I said before, if you have a look at all of the exceedances  
45 I was asked to look at, I think the highest was just a tad  
46 over 4 per cent. The majority of the rest of them were in  
47 the 3 per cent range, and I think the maximum time was

1 something like just over an hour.

2

3 Q. That, no doubt, is why you have suggested that  
4 watching and understanding trends is really important as  
5 part of your gas management process?

6 A. Trends is all important.

7

8 Q. You accept, though, don't you, that you need to pick  
9 a number or draw a line in the sand from a regulatory point  
10 of view in terms of --

11 A. Yes, there needs to be an arbitrary figure some place.  
12 You can argue 2.4, but if it's 2.5, fine.

13

14 Q. There is no magic in what that number might be, apart  
15 from creating a buffer between that and the lower explosive  
16 limit for methane?

17 A. Agree.

18

19 Q. In terms of drawing the line in the sand, 2.5 per cent  
20 is not a bad place to put it, really, is it?

21 A. Fifty per cent, I guess, of the lower explosive range,  
22 yes.

23

24 Q. There is no real difference to coal mine workers in  
25 terms of risk, real or potential, between 2.4 per cent and  
26 2.6 per cent methane, is there?

27 A. No.

28

29 Q. Apart from the fact that at 2.4, you don't have a HPI;  
30 at 2.6, you do?

31 A. Correct.

32

33 Q. Just because you might have exceeded that 2.5 per cent  
34 doesn't mean your systems have failed, does it?

35 A. As I've tried to explain, no. No.

36

37 Q. I think you have gone through this morning the  
38 controls that are in place, as Mr Rice called it, the  
39 secondary controls, where you have at 1 per cent, a visible  
40 alarm on your longwall shearer; at 1.25 per cent, the  
41 shearer cutters are slowed down; and then at 2 per cent,  
42 you lose power to the face?

43 A. Yes. It's like any risk management system, you need -  
44 and we talked earlier on about critical controls. You need  
45 a level of controls, not reliant on one. You need a suite  
46 of controls, particularly when you are dealing with a high  
47 potential situation.

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Q. And then the last line of defence is at 2.5 per cent, you remove everyone from the face?

A. Yes.

Q. And they are out of harm's way?

A. Correct.

Q. You were asked some questions just before about achieving the legislative requirements, excluding things like unforeseen events, I think it was put to you. What did you understand an unforeseen event is, or was, in the context of you answering those questions?

A. When I finally worked out what your learned friend was asking me. When you design these things, you look at a whole bunch of potentials, and that's what your hazards are, your risk potentials, so you throw all the things up that can happen. So they are the foreseeable events, but every now and again there may be one that pops out of nowhere that you didn't foresee.

As I said, that could be a hole that blocks up. You can't say that every hole is going to block up, but you try your best, through measurement of the holes, to work out which ones may be blocked and which ones may not be blocked. I'll give you an example. Take the time back to West Cliff, for example. You could go behind the longwall face there, and there would be two holes about 5 metres apart. One would be purring away like a Cessna, and the one alongside it would be like a 747 roaring with the gas coming out. They are not that far apart, the flight plan is exactly the same, they are aiming at the same direction, but the quantities are so much different.

Q. In a complex environment that is the longwall, is it unrealistic to exclude those types of events when you are considering --

A. I think it's unrealistic.

Q. It is unrealistic to exclude those things?

A. Yes. The technology that we have at the present stage doesn't preclude those things happening. Now, where technology goes - I mean, the directional drilling that is now used underground on the underground in-seam holes compared to what we started off with in the early 1970s has just moved on tremendously.



1 Q. But in terms of some of these events, there are still  
2 issues around how you control them; right? In terms of  
3 a goaf fall, that's something that is likely to happen.  
4 I mean, the whole point of a goaf is that it's falling.

5 A. Yes, and sometimes it can --

6  
7 Q. You can't necessarily control that?

8 A. No, sometimes it can hang back, for whatever reason -  
9 there is a piece of stronger roof there.

10  
11 THE CHAIRPERSON: Q. But that's well known, isn't it?

12 A. They're not uncommon.

13  
14 Q. I beg your pardon?

15 A. They're not uncommon, Mr Martin, but it's pretty hard  
16 to know exactly where they are going to happen.

17  
18 Q. Sure. Where and when, I suppose?

19 A. Yes, it is. Yes, it is, exactly.

20  
21 MS FREEMAN: That was all that I had, thank you,  
22 Mr Martin.

23  
24 **<EXAMINATION BY RICE:**

25  
26 MR RICE: Q. You agreed with my learned friend  
27 Ms Freeman when she put it to you that you had been asked  
28 to advise on issues that the Board was concerned with.

29 A. Correct.

30  
31 Q. To be more specific, with respect to those passages  
32 from your report expressing opinions about danger that we  
33 looked at earlier, can we take it that you incorporated  
34 those passages of expression of opinion because that's what  
35 you were asked to do?

36 A. I was asked to provide a technical report on the  
37 exceedances and what I considered, yes.

38  
39 Q. But more than that, you were asked to express a view,  
40 were you not, on the degree of danger that you discern by  
41 reference to the events as they unfolded as reflected in  
42 the documents?

43 A. No, that's not what I was asked to do. The solicitors  
44 provided me with a suite of information and I was asked to  
45 provide a report. They didn't ask me to comment other than  
46 give an honest appreciation. And it's pretty hard to  
47 prevent me giving an opinion.

1  
2 Q. You do not give any opinion or comment in any way, can  
3 I suggest, on the subject of potential for harm associated  
4 with methane HPIS either generally or with respect to the  
5 particular HPIS in this matter?

6 A. As I said previously, the information I was - the  
7 brief was to provide a report on the exceedances at  
8 Moranbah North and Grasstree, and, for that, they provided  
9 a whole suite of information with regard to the safety and  
10 health management system, corporate documentation, the mine  
11 record entries, the form 1As, the form 5As. From all of  
12 that information, I distilled all of that and then prepared  
13 that report.

14  
15 Q. Were you asked to comment, either generally or  
16 specifically, on the potential for harm associated with  
17 methane HPIS or with these methane HPIS in particular?

18 A. No, I was not. That was not detailed.

19  
20 Q. And you chose not to do so?

21 A. Pardon?

22  
23 Q. You chose not to do so? I say that because your  
24 report doesn't in fact do so.

25 A. My report doesn't what, sorry?

26  
27 Q. It makes no comment on the potential for harm  
28 associated with methane HPIS either generally or  
29 specifically with respect to these two mines?

30 A. I thought I did, actually. I thought that's what  
31 I said, that when I reviewed all of them, I was satisfied  
32 that the attention to detail in addressing the issues, the  
33 recommendations that were taken by the organisation to deal  
34 with those, reduced those levels of potential harm in the  
35 future. And right at the last paragraph, as I think  
36 I said, when I looked at all of them, I never felt at any  
37 time with the level of detail or the level of controls that  
38 were in place was there any danger to any individual  
39 underground. Yes?

40  
41 MR RICE: Thanks, Mr Taylor.

42  
43 THE CHAIRPERSON: Mr Clough?

44  
45 MR CLOUGH: Q. Mr Taylor, I have a couple of questions.  
46 The first question: are you familiar with a document put  
47 out by DNRM called "Best Practice in Methane Management"?

1 A. Is that the one that was released in the middle of  
2 last year.

3

4 Q. Yes, it was to do with the placement of the sensor  
5 between nought and 400 metres?

6 A. Yes, I have read that document, yes.

7

8 Q. You will have to forgive me because I'm relying on my  
9 memory, but what I recall from that document was that the  
10 logic was that the sensor, where it was placed, only picked  
11 up the gas at that particular location, and modelling  
12 suggested there may have been other areas where the methane  
13 concentration was much higher. Is that what you recall  
14 reading?

15 A. Yes, I think from memory, Mr Clough, where they put  
16 the monitor at 400 metres, because of where the shearer  
17 could be in the tailgate, they worked it out simplistically  
18 that 50 per cent of air was going to go that way,  
19 50 per cent was going to go over the top, and then when it  
20 all came together, that that would be the general body  
21 reading for the total area, which I felt was a bit  
22 simplistic, actually.

23

24 Q. What I recall is that the modelling suggested that the  
25 tailgate drum of the shearer, as it came into the tailgate,  
26 could actually go into a methane concentration much higher  
27 than was being picked up on the sensors that are sitting on  
28 the tailgate drives, and there was a concern in relation to  
29 frictional ignition if, for example, the picks hit the roof  
30 or hit the cans. Do you recall reading that?

31 A. I do, and that's why at any mine I have ever managed,  
32 we always had methane sensors on the last roof support both  
33 between the legs and along the canopy, because that would  
34 pick up that potential goaf stream coming out of the goaf,  
35 which is the concern that you're mentioning there, yes.

36

37 Q. My reading of it is that you can't actually put  
38 a sensor at that location where that drum is, because it is  
39 quite close to the goaf. So they actually said if you put  
40 a sensor further outbye, and as a result of the modelling,  
41 if the sensor further outbye was picking up 2 per cent,  
42 there is probably maybe 4 per cent in the goaf stream where  
43 the head is cutting. That was my recollection of that  
44 document.

45 A. Yes, and I think if you picture that, if this is the  
46 tailgate and that's your canopy here (indicating), if  
47 you've got one between your legs and you've got one further

1 along, that's picking up any flow that may be coming from  
2 the goaf stream between the legs as you start to bank your  
3 roof support over, because obviously you're going to  
4 disturb the pressures in that area, and that's exactly what  
5 happened with the methanometer that Grasstree placed. If  
6 you have a look at the reports, none of the other  
7 methanometers that were in that area that were statutorily  
8 required at the tailgate were actually picking up any  
9 methane at all, or any rise in quantity. That one was  
10 picking up 2.5 per cent and the others were picking up  
11 nothing. So that, to me, is the place that you should  
12 have it. And I'm pleased, as I said, that they maintained  
13 that there, because it's picking up.  
14

15 Now, if you put it too far forward, then I accept  
16 that, because then you're going to have the dust and the  
17 water coming off the shearer drum, the drum's going to come  
18 in and you're not going to pick up an accurate reading.  
19 But if it is far enough back it is picking it up as it  
20 comes out of the waste, so you are picking that stream up.  
21

22 Q. The point I'm making is that just because you have  
23 2 per cent on a particular sensor, that's only that  
24 location?

25 A. Correct.  
26

27 Q. It doesn't guarantee you haven't got another mixture  
28 at a higher concentration somewhere else?

29 A. Most definitely, yes.  
30

31 Q. The second thing I want to ask you about is, you spoke  
32 about the principal reason for gas drainage being to lower  
33 the gas levels below the threshold level for outbursts?

34 A. That's right, yes.  
35

36 Q. I will bounce some figures around that I'm familiar  
37 with. Between 6 and 9 cubic metres a tonne is fairly  
38 typical for most Australian mines, depending on  
39 characteristics of the coal seam and the composition of the  
40 gas --

41 A. That's about right. About 7.8 for 100 per cent  
42 methane down to about 6.2 when it goes to 100 per cent CO<sub>2</sub>.  
43

44 Q. If I recall rightly, I think, it was about 7 metres  
45 a tonne for Moranbah North?

46 A. Yes, around about.  
47

1 Q. Could I put to you that in fact if you drained at  
2 Moranbah North to, say, 5 cubic metres a tonne or 6 cubic  
3 metres a tonne you would never be able to achieve the  
4 development rates, the mining rates, because of the issues  
5 you would have with gas trips in the development panels?

6 A. Clearly, yes, I accept that.

7  
8 Q. So there is a production imperative as well to get  
9 those gas levels down to a lower level?

10 A. There is.

11  
12 Q. I just wanted that on the record. The last question  
13 is in relation to the response time on the methane sensors.  
14 Are you familiar with the term "lag of ignition of  
15 methane"?

16 A. Yes, I am.

17  
18 Q. I just want to get your understanding, because you  
19 quoted figures of methane sensors responding in  
20 milliseconds. You even said nanoseconds. Do you know if  
21 the methane sensor knocks the power off at a time interval  
22 that is shorter than the lag time of the ignition of  
23 methane?

24 A. Say that again, sorry, Mr Clough.

25  
26 Q. Is the response time of the sensor to knock the power  
27 off faster than the lag time of the ignition of methane?

28 A. My understanding is in most instances yes.

29  
30 MR CLOUGH: No further questions from me, thank you.

31  
32 THE CHAIRPERSON: Thank you. Mr Taylor, thank you for  
33 your evidence. You are excused.

34  
35 **<THE WITNESS WITHDREW**

36  
37 THE CHAIRPERSON: We might take the morning break for  
38 15 minutes.

39  
40 **SHORT ADJOURNMENT**

41  
42 THE CHAIRPERSON: Ms O'Gorman?

43  
44 MS O'GORMAN: Mr Martin, I call John Sleigh.

45  
46  
47

1 <JOHN SLEIGH, affirmed: [11.55am]

2

3

<EXAMINATION BY MS O'GORMAN:

4

5 MS O'GORMAN: Q. Your name is John Sleigh?

6

A. Yes.

7

8 Q. You currently hold the position, don't you, as one of  
9 the vice presidents of the Mine Managers Association of  
10 Australia?

11

A. That's correct.

12

13 Q. In this session, we're going to explore with you some  
14 of the issues related to training and competency across the  
15 mining industry.

16

A. Mmm-hmm.

17

18 Q. In that regard, you have provided a statement to the  
19 Board, SLT.001.001.0001, haven't you?

20

A. Yes, that's correct.

21

22 Q. That statement was dated 9 August 2020.

23

A. Correct.

24

25 Q. If I can just ask you some questions about your  
26 background, to start with, is it the case that you have  
27 worked in the mining industry since about 1965?

28

A. Yes. I've had some periods out of it during downturns  
29 and during career choices, but basically yes.

30

31 Q. In terms of your own competencies, it is the case,  
32 isn't it, that you hold all three of the first, second and  
33 third class certificates of competencies and have done  
34 since the 1970s?

35

A. Yes.

36

37 Q. In terms of your work experience, then, relevant to  
38 those competencies, you worked as an under-manger for  
39 BHP Collieries Group in the late 1970s?

40

A. Yes.

41

42 Q. And then for nearly a decade in the 1980s, you managed  
43 the Cordeaux Colliery in Wollongong?

44

A. Yes.

45

46 Q. After that time, you left the industry but consulted  
47 in safety systems and training more broadly?

1 A. Yes. I deliberately made a choice during an industry  
2 downturn to stay away from mining for two years. About  
3 18 months into it, somebody said, "Would you come and help  
4 me set up a new mine?", and I did.

5  
6 Q. In 2006 you returned to the mining industry as  
7 a safety and training manager?

8 A. A full-time position, yes, yes.

9  
10 Q. From 2008 to 2015 you held the role of a mines  
11 inspector with the Queensland Mines Inspectorate?

12 A. A mines inspector, and then a senior inspector,  
13 a district inspector, and ultimately the regional inspector  
14 for the whole of the coal field.

15  
16 Q. You have been, haven't you, a member of the Board of  
17 Examiners from 2010 through to 2015?

18 A. Correct.

19  
20 Q. As I understand it, since then you have engaged in  
21 consultant work?

22 A. Yes.

23  
24 Q. Still within the mining industry?

25 A. On and off. I retired essentially when my contract  
26 was completed with the department, and a number of people  
27 think I'm too young to retire, so they offer me jobs and  
28 I take up the interesting ones.

29  
30 Q. Now, can I ask you about the MMAA. Firstly, how long  
31 have you been a member with that association?

32 A. I would have been a member from the time that  
33 I qualified for membership, in probably the early 1970s,  
34 until 1988. At that stage when I left the industry, when  
35 I took the redundancy, there wasn't a provision for  
36 consultants or non-position holders to stay in the  
37 association, so I resigned from the association at that  
38 stage. When I came back into the industry, I rejoined. So  
39 10 years in the 1980s and probably 15 years most recently.

40  
41 Q. How long have you been in the role of vice president?

42 A. I think probably since about 2010.

43  
44 Q. It is the case, isn't it, that the MMAA is made up  
45 primarily of people in senior roles in coal mines in  
46 Queensland and New South Wales but also of consultants,  
47 now, and some government officials as well?

1 A. Yes. Quite a number of government inspectors are  
2 members. There are educators - a variety, quite a variety  
3 of people.

4  
5 Q. Is it the case that to have full membership of the  
6 association, one must hold a first class certificate of  
7 competency?

8 A. That's correct.

9  
10 Q. Nonetheless, the association makes available associate  
11 memberships to other people who hold senior roles in the  
12 mining industry?

13 A. Yes.

14  
15 Q. There is about 115 Queensland members; is that the  
16 case?

17 A. That's correct.

18  
19 Q. In addition to maintaining an advocacy role, the MMAA  
20 conducts CPD programs, does it not, for its members and  
21 associate members?

22 A. One of the origins of the association back in the  
23 1940s in the Hunter Valley was to share experiences, so  
24 that if something was happening at a mine - and this was  
25 pre mechanisation. So in the early days of the  
26 introduction of mechanisation, it was absolutely critical.

27  
28 It became formalised in about 1975 to hold full-day  
29 seminars, whereas previously it had been two-hour meetings  
30 or three-hour meetings and so forth. The first full-day  
31 seminars I actually attended in about 1975. Since then,  
32 primarily they have been held in New South Wales, but we  
33 brought them to Queensland in about 2012.

34  
35 Q. Since that time, up until the present, there has been  
36 a program that is offered by the MMAA to its members, and  
37 associate members, for that matter?

38 A. We have been held up by COVID, as everyone has, but  
39 we're looking at the moment at how we do that using remote  
40 conferencing.

41  
42 Q. Can we turn now to the available certificates of  
43 competency that are relevant to underground coal mines in  
44 Queensland.

45 A. Yes.

46  
47 Q. It is the case, isn't it, that there is available



1 a first class certificate of competency?

2 A. That's the mine manager's certificate of competency,  
3 yes.

4

5 Q. In addition to that, the second class, which is the  
6 under-manger certificate of competency?

7 A. The under-manger's certificate, which essentially is  
8 the sort of person who would be looking after a shift or  
9 would be responsible for the mine in the absence of the  
10 manager. That's mandated in New South Wales, and it is  
11 optional in Queensland. Quite a number of people do take  
12 up the second class certificate.

13

14 Q. Then we have the third class certificate, or the  
15 deputy's certificate, for those in the position of a deputy  
16 or an ERZ controller, as it has been referred to here?

17 A. Yes, it is called an ERZ controller in Queensland, but  
18 it is still referred to as the deputy's certificate of  
19 competency. That's the person who is responsible for doing  
20 the inspections and maintaining the standards around  
21 a workplace.

22

23 Q. Finally relevant to underground coal mines, we have,  
24 don't we, the ventilation officer certificate of  
25 competency?

26 A. That's a new certificate that has been introduced over  
27 the last five years, probably.

28

29 Q. Can I ask you some questions about the first class  
30 certificate of competency. It is the case, isn't it, that  
31 the Act mandates that the person who is in control or  
32 manages the mine must have a first class certificate of  
33 competency?

34 A. That is quite specific in the Act.

35

36 Q. However, in the absence of that person, the  
37 underground mine manager, the person who can be appointed  
38 to have control and management of underground activities in  
39 his or her absence need only hold a first, second or third  
40 class certificate?

41 A. That's correct.

42

43 Q. In your view, is there any difficulty or potential  
44 concern with the fact that the mine can be left under the  
45 control and management of someone who holds not a first  
46 class certificate or even a second class, but the deputy's  
47 certificate?

1 A. I need to be clear here that I'm expressing a view of  
2 the Mine Managers Association, which I do hold, that, yes,  
3 the New South Wales standard, that when the manager is away  
4 from the mine, if production is going on or if there are  
5 more than 15 people underground, you are required in  
6 New South Wales to have a second class certificate of  
7 competency - we see that as an appropriate level.  
8

9 The Coal Mine Safety Advisory Council has put out  
10 a document on what sort of standards people need to have to  
11 hold a senior position in an organisational structure,  
12 called QGN24, I think, the organisational structure  
13 standard. It highlights the fact that the person at that  
14 level, level 5 on the national competency scale, the  
15 hierarchy of knowledge scale, deals with administering  
16 rather than merely monitoring and observing and following,  
17 but actually a higher level, and we believe that's an  
18 appropriate level.  
19

20 Q. You have mentioned level 5, I think relevant to the  
21 AQF framework?

22 A. Yes.  
23

24 Q. Is that equivalent to the first class certificate?

25 A. Level 6 is the first class certificate. Well, you  
26 need to do a whole lot of national competencies, 12 in all,  
27 or eight if you have a degree, that are at level 6 on the  
28 national competency standard, and they are the "establish  
29 and maintain" level. That hierarchy of knowledge goes up  
30 to the doctorate level, which is hypothesise and postulate  
31 and imagine, I guess. I do have the - I can find  
32 a document with it, but it's quite an abstract level of  
33 knowledge. The level that we are looking at for a mine  
34 manager is establish and maintain knowledge.  
35

36 Q. This might be obvious, but in your view, what is the  
37 benefit that would flow from a requirement that in the  
38 absence of an underground mine manager, the person who is  
39 left with control and management of underground activities  
40 is somebody with either the first or second class  
41 certificate of competency as opposed to the deputy's  
42 certificate?

43 A. Simply the level of knowledge that a person is  
44 required to have before they take the job on. We've seen -  
45 it has been very interesting for an outsider to watch, the  
46 intelligence of the counsel is obviously very high in that  
47 they are able to grasp the concepts behind mining, and no

1 doubt to get to the stage where counsel have got to  
2 requires a very high level of intelligence. Now, the same  
3 sort of thing I think has been evident with the operating  
4 managers. The difficulties that they deal with on  
5 a day-to-day basis, and watching people like Damien  
6 yesterday, as a young operating manager, compared to my  
7 mentor, Gavin, and the level that he has got to - it is at  
8 a very high level of intelligence to answer the sorts of  
9 questions that come up, dealing day to day.

10  
11 Now, some of it is at the administrative level. There  
12 are tick boxes and you make sure all of those things are in  
13 place, and that's appropriate in a third class certificate  
14 of competency level, level 4 on the national competencies.  
15

16 Under-mangers are looking after a group of ERZ  
17 controllers or deputies, and they are administering, they  
18 are rearranging facilities, they are responding. But to  
19 actually plan it requires the sort of intelligence that is  
20 tested for in a first class certificate of competency.  
21

22 One other way that I've seen it described: a machine  
23 operator in a mine, a good one, operates with a one-day  
24 view, so whatever I do now is going to look good at the end  
25 of the day. A deputy looks at a week-long view. An  
26 under-manger is looking at about a month. An underground  
27 mine manager is looking probably 12 to 18 months ahead, and  
28 an SSE five years ahead. The CEO of the company is looking  
29 25 years ahead. That's another way of expressing the  
30 knowledge hierarchy. Now, we want somebody high on that  
31 knowledge hierarchy to be dealing with the problems we're  
32 dealing with.  
33

34 Q. You've mentioned the SSE there. You are aware, aren't  
35 you, that under the Act the SSE is not required to hold any  
36 particular certificate of competency, whether it be  
37 a first, second or third class certificate?

38 A. Yes.  
39

40 Q. What the SSE is required to hold is an SSE notice  
41 issued by the Board of Examiners to confirm that the SSE  
42 has undertaken the legislative exam and understands the  
43 legal framework, as it were?

44 A. I'm very familiar with that. I actually wrote the  
45 first of the SSE exams, so I'm right across that.  
46

47 Q. Prior to the introduction of the current 1999 Act, it

- 1 is the case, isn't it, that the UMM or the mine manager was  
2 the most senior person at the mine, typically?
- 3 A. Absolutely, in the time when I was the mine manager.  
4
- 5 Q. Now under the new Act, the 1999 Act, it is not the  
6 case --
- 7 A. No.  
8
- 9 Q. -- that the mine manager is necessarily the most  
10 senior person at the mine. That is the SSE, isn't it?
- 11 A. Mmm-hmm, yes.  
12
- 13 Q. Do you see any tension between the fact that the  
14 underground mine manager is required to hold a first class  
15 certificate of competency, but the SSE is not required to  
16 hold such a certificate?
- 17 A. Look, it is difficult to understand how you can manage  
18 and control and not be in control and be the senior  
19 manager. The tradition has been the qualified manager -  
20 the tradition prior to the introduction of the Act. But  
21 even post the introduction of the Act, quite a number of  
22 SSEs are people that have been promoted from the position  
23 of underground mine manager to SSE, as Damien, yesterday's  
24 witness, was.  
25
- 26 Q. I think we saw yesterday from Mr Wynn's evidence that  
27 he does in fact hold a first class certificate?
- 28 A. He holds it, yes. And that's not unusual. There are  
29 a number of board members that hold a first class. They've  
30 been progressively moved up through the organisation.  
31
- 32 Q. In your view, would there be any benefit in the  
33 introduction of a requirement that SSEs do hold a first  
34 class certificate of competency?
- 35 A. The position of the Mine Managers Association is to  
36 favour that. We have made a number of submissions to the  
37 minister, both in New South Wales and in Queensland, that  
38 that standard should be returned to. That was also  
39 a standard that was established at the 1902 inquiry into  
40 the Mount Kembla explosion in New South Wales, was  
41 reinforced in 1925 after the Mount Mulligan disaster in  
42 Queensland, where 75 people were killed, and most recently  
43 in Queensland after the explosion at Moura No. 4 in the  
44 mid 1990s and at Pike River in 2010. Whenever an inquiry  
45 is held, it seems obvious to those sitting on the inquiry  
46 that the competence of the mine manager is absolutely  
47 critical.

1  
2 Q. I would like to turn now to the decline in the number  
3 of certificate of competency holders in Queensland. You  
4 refer to the decline in those numbers in your statement.  
5 We might go to the numbers as contained in the Board of  
6 Examiners' annual report. It is one of the documents  
7 attached to your statement. Mr Operator, could we bring up  
8 document MMA.001.001.013.0001, please. Mr Sleigh, you can  
9 see that document there on the screen in front of you?

10 A. Yes.

11

12 Q. You have provided that as an attachment to your  
13 statement because, as far as you are aware, the 2019/2020  
14 report is not yet available; is that the case?

15 A. That's correct.

16

17 Q. So this, to your knowledge, is the most up-to-date  
18 information that you have about the current numbers of  
19 certificate holders in Queensland?

20 A. Yes.

21

22 Q. Could we turn, please, Mr Operator, to page 0017. If  
23 possible, could we zoom in to table 8, the middle table.  
24 Mr Sleigh, does this table here set out the Board of  
25 Examiners' details with respect to the number of  
26 applications received by the board for the various  
27 certificate of competencies in the years 2014 through to  
28 the end of 2019?

29 A. I understand that's the table, yes. They are the  
30 applications received.

31

32 Q. Yes, so if we can look at this first. We will turn  
33 next to the certificates that have in fact been issued.

34 A. Yes.

35

36 Q. Just looking at the number of people applying, the  
37 first row, designated by 1CC, sets out the numbers of  
38 people who have applied for their First Class Mine  
39 Manager's Certificate of Competency; is that correct?

40 A. Yes.

41

42 Q. We can see there that in 2014-2015 there were four  
43 people, and there has been a reduction in recent years, and  
44 in the year 2018-2019 there was one person who applied?

45 A. Yes.

46

47 Q. Similarly for the second class certificate, we can see

1 in 2014-2015 there were 16 applications. That number has  
2 decreased. There was a slight increase in 2017-2018, and  
3 the numbers fell again in the year 2018-2019?

4 A. Correct.

5

6 Q. In respect of the deputy's certificate, we can see  
7 a decline generally, although an uptick in 2018-2019, most  
8 recently?

9 A. Correct.

10

11 Q. The next two rows are not relevant, are they, to  
12 underground coal mines?

13 A. No. The 1MM is the first class certificate of  
14 competency for a metal mine, and the SSE is a legislation  
15 exam, not a certificate of competency. The applicants for  
16 the others need to have completed quite a number of steps  
17 before they get into that box as an applicant.

18

19 Q. I was looking at the rows dealing with the OCE and  
20 1MM. Both of those relate to open-cut mines, don't they?

21 A. No. The OCE is an open-cut examiner. The 1MM is the  
22 mine manager for a metal mine.

23

24 Q. Thank you. And then as you have identified, the row  
25 relating to the SSE is in respect of the SSE's notice that  
26 we talked about earlier?

27 A. Yes.

28

29 Q. Can we move, then, please, to page 0019 and zoom in on  
30 table 13. This table, Mr Sleigh, sets out the actual  
31 numbers of certificates of competency issued in the  
32 financial years 2017-2018 and 2018-2019?

33 A. Yes.

34

35 Q. We can see, can't we, that there were no first class  
36 certificates of competency issued?

37 A. Mmm-hmm.

38

39 Q. In either year?

40 A. Well, there were no applicants, so that's not  
41 surprising, yes - or very few applicants.

42

43 Q. Yes. I think one.

44 A. Yes.

45

46 Q. For the second class certificate of competency, there  
47 are also small numbers of certificates issued?

1 A. Yes.

2

3 Q. And more in respect of the deputy's competency?

4 A. Yes.

5

6 Q. One effect of the declining number of certificates of  
7 competency that are being issued in recent years is that  
8 those who are holders of those statutory certificates of  
9 competency are in an ageing bracket, aren't they?

10 A. Yes.

11

12 Q. To get a good feel for what this looks like in real  
13 terms, we might turn to page 0020. I might ask,  
14 Mr Operator, if you could zoom in, please, on the top  
15 right-hand chart. Mr Sleigh, this chart sets out, doesn't  
16 it, the total number of first class certificates of  
17 competency that were apparently - and we will come to  
18 a qualification - held by people as at 30 June 2019?

19 A. Yes, it's based on their age when they qualified.

20

21 Q. We can see, according to this chart, that there were  
22 227 holders of first class certificates of competency?

23 A. Yes.

24

25 Q. But I think it is the case, isn't it, that that number  
26 may in fact be a little bit less because the Board of  
27 Examiners doesn't keep a record, necessarily, of those who  
28 have become deceased?

29 A. Yes.

30

31 Q. So there might be people who --

32 A. Or who have retired or left the industry.

33

34 Q. I see. Those people, for example, in the age bracket  
35 over 80 are apparently 18 people, but they may be retired  
36 or otherwise not in the industry?

37 A. I would think that none of those are active in the -  
38 there is one - yes, I don't think he is managing a mine at  
39 the moment.

40

41 Q. Can we look, then, to the part of the chart which  
42 indicates how many are in the age bracket 60 to 69, because  
43 it is apparent that that is clearly the largest cohort?

44 A. Yes, yes.

45

46 Q. If we move to the left-hand side of that chart, it  
47 becomes apparent, does it not, that numbers of those who

1 are first class certificate of competency holders in the  
2 younger age brackets get smaller and smaller?

3 A. Yes.

4

5 Q. According to this data, there are only 16 people aged  
6 40 to 49 who are holders of that certificate?

7 A. Yes.

8

9 Q. Only two who are under 40?

10 A. Yes. Look, the under 40 - certainly the under 30 is  
11 not overly surprising, in that you need to have completed  
12 degree-level qualification and some competencies and have  
13 five years' experience and so forth. So it's not  
14 surprising. I got my ticket when I was 28. Gavin got his  
15 when he was 25. Generally speaking, it's not surprising  
16 that there are not a lot of under 30s, but it is alarming  
17 to the association that there are so few 30-year-olds or  
18 40-year-olds that have qualified. These are merely to have  
19 qualified, not to actually hold the position.

20

21 Q. Can we talk, then, by contrast to what is in fact the  
22 dwindling number of holders of the first class certificate,  
23 about the benefits of a greater number of people holding  
24 those certificates. As I understand your statement, in  
25 your view there is a clear benefit to a greater number of  
26 candidates seeking to sit for that statutory examination,  
27 on one hand, because it requires a greater number of  
28 examiners?

29 A. Yes.

30

31 Q. Which means, in turn, there is a learning culture  
32 established throughout the industry; is that the case?

33 A. That's right. And also there is an incentive for an  
34 RT0 to provide the competencies that need to be trained.  
35 Unfortunately, in the last six months, we've lost the two  
36 principals of RT0s that were providing those competencies,  
37 both to tragic deaths. Mark Harris and John Brady both  
38 died within the last six months. But an RT0 is not going  
39 to set up for two candidates, which is what we had,  
40 I think, in the first class certificate of competency over  
41 the last two or three years. So we need a system to cope  
42 with that.

43

44 Q. It is the case, isn't it, that of course a greater  
45 number of people within the industry, operationally, who  
46 hold the first class certificate of competency lifts the  
47 general expertise across the industry itself?



1 A. Oh, absolutely, because you are talking to people  
2 about why does this happen. It's sometimes interesting to  
3 watch someone like Gavin explain to a counsel the  
4 particular circumstances. And that's the conversation  
5 that's happening at the mine, at the same level of being  
6 able to - "You've got to look at this and you've got to  
7 look at that." But it also refreshes your own knowledge,  
8 because, "Gee, I haven't looked at that for a while. Let  
9 me go and dig a book out", that sort of approach.  
10 I believe that we had a learning culture developing in the  
11 coal industry in the first half of the last decade - of  
12 this decade.

13  
14 Q. Can we have a look at the process, then, for someone  
15 applying to sit the examination and going through the  
16 examination process. It is the case, as I understand it  
17 from what you said a little earlier - and let's just limit  
18 our discussion to first class certificates of competency -  
19 that someone wishing to apply to sit that examination must  
20 have five years' experience under their belt?

21 A. That's correct.

22

23 Q. In addition to that, they must also have completed  
24 a certain number of prescribed competencies?

25 A. Yes, which are aligned to the principal hazards - the  
26 outbursts and gas and ventilation, strata control, those  
27 sort of things, emergency response.

28

29 Q. Those two prerequisites will enable a candidate to sit  
30 for the legislation exam; is that right?

31 A. Look, I would need to have a look at the application  
32 form to see whether there is anything else. I think you  
33 have to have a first-aid ticket and it has always astounded  
34 me why that was critical, because you're not measuring the  
35 competency of the person in the role. I'm not against  
36 people having first-aid tickets, but it doesn't appear to  
37 me to be related to the competency role.

38

39 You need to do a gas testing certificate, which is  
40 a hangover from the days of oil lamps, where you needed to  
41 be able to read the gas test flame. That's no longer the  
42 test, but there is still a competency; you must have  
43 completed a gas testing course at the rescue station. I'm  
44 not against that, but that happens to be how it originated.

45

46 You need to have the competencies - you need to have  
47 a reference from a manager, from your mine manager, to say

1 that you are the sort of person that they would employ as  
2 a statutory official, so it's essentially a reference.

3

4 Q. Now, assuming one holds --

5 A. All of those.

6

7 Q. -- all of those prerequisites, the next step in the  
8 process is that they sit for a written exam, which is the  
9 legislative exam testing their knowledge of the legal  
10 framework; is that correct?

11 A. Yes.

12

13 Q. That has, I think, a 70 per cent pass mark associated  
14 with it?

15 A. That's correct.

16

17 Q. And only if one passes that exam is one then eligible  
18 to undertake the oral examination, which is the end of the  
19 process?

20 A. That's correct.

21

22 Q. The oral examination, as I understand it, usually  
23 takes between three or four hours but may take longer?

24 A. Oh, look, there have been exceptions where it has  
25 taken longer, but generally speaking, as an examiner, you  
26 know within about 45 minutes if the person is just not  
27 going to make it. You don't necessarily know they are  
28 going to make it. So there wouldn't be any point in going  
29 beyond four hours.

30

31 Q. They are presided over by three members of the Board  
32 of Examiners, aren't they?

33 A. Yes - oh, no, a panel selected by the Board of  
34 Examiners. The chair will probably be one of the  
35 inspectors of the Board of Examiners, unless an inspector  
36 is doing the exam, and your own employer doesn't sit on the  
37 panel.

38

39 Q. During the time that you were on the Board of  
40 Examiners, or otherwise, for that matter, how many people  
41 typically would constitute the pool of people from which  
42 that panel could be drawn?

43 A. I think we had somebody from almost every underground  
44 mine, because we had, at its peak, something like 70 or  
45 80 deputies candidates. For a manager to get away for  
46 a couple of days to do exams was a big ask. They were  
47 basically managers and SSEs that were coming in, qualified

1 SSEs. I think there were something like 15 on the third  
2 class certificate panel and probably six of us on the first  
3 and second class panel. That was the same panel.  
4

5 Q. Ultimately the decision about whether or not a first  
6 class certificate of competency should be issued to the  
7 candidate came down to the collective decision of those  
8 three people?

9 A. They make a recommendation and complete a report to  
10 the board, and the administrative area of the board looks  
11 for any reasons why they would preclude them. But  
12 basically, yes, it's a judgment call.  
13

14 Q. Can we talk about any potential barriers thrown up by  
15 the process itself to increasing the numbers of actual  
16 holders. Firstly, in your view, is there any risk that  
17 there is a level of subjectivity built in to the oral exam,  
18 which might preclude someone who ought to be given their  
19 first class certificate of competency, based on the view of  
20 those three people?

21 A. Look, the oral exam concept is one we took from the  
22 employment process. I think probably most of the people in  
23 this room were given their job as a result of an oral  
24 examination by employing people, so it's not an abnormal  
25 circumstance.  
26

27 What it allows is practical operators to actually see  
28 how people are going to go under a situation, because  
29 working as a mine manager is very much an instantaneous  
30 decision-making process versus - and there is a book called  
31 Thinking, Fast and Slow, which I recommend, and I wish  
32 I could remember the name of the author, but he is a Nobel  
33 Prize winner for economics. It talks about the need  
34 sometimes to think fast and sometimes the need to think  
35 slow, and an oral examination is a particularly good way to  
36 see whether the person has those skills.  
37

38 The people on the board are the sorts of people that  
39 are going to employ this mine manager in the future,  
40 anyway. So we take subjectivity out of it by, for example,  
41 you don't go on the panel - this is why we had six on the  
42 first class panel. You don't go on the panel if you have  
43 worked with the person, if you work for their employer -  
44 there are a number of conditions like that to remove  
45 preferences. So I think it's probably as objective as  
46 employment selection generally.  
47

1 Q. It is the case, isn't it, though, that not everyone  
2 performs well or to their best in an oral examination. Do  
3 you see any value in potentially building in to the process  
4 a written technical exam to complement the oral exam?  
5 A. I've been through both, because the New South Wales  
6 system, in the days when I did it, was three consecutive  
7 days of written exams, and if you got through that, then  
8 you did your oral. They have watered that down  
9 considerably, so I think it is now one full day of written  
10 exams and then a much shorter oral, a 45-minute to one-hour  
11 oral, that's based on the information that you left out in  
12 the written exam.

13  
14 There are a number of managers who have chosen to do  
15 the New South Wales exam and then do the legislation for  
16 mutual recognition with Queensland, and that suited  
17 perfectly. That's a choice that has been taken, and I can  
18 think of one person in particular that has taken it, was  
19 working in Queensland, did the exam in New South Wales, and  
20 came back to Queensland. There was no problem with that.

21  
22 Q. Can I just ask, Mr Sleigh, the exam in New South Wales  
23 is a written exam, is it?

24 A. It is a written exam in technical subjects, followed  
25 by a 45-minute to one and a half hour oral exam, so it  
26 still has the oral exam.

27  
28 Q. What about the desirability of inspectors within the  
29 inspectorate holding first class certificates of  
30 competency? You have spoken in your statement about the  
31 fact that in the MMAA's view, it would be desirable and  
32 beneficial for there to be an increased number of  
33 inspectors who hold the first class certificate.

34 A. Yes.

35  
36 Q. Can I ask you this: given that we understand that  
37 a number of inspectors have more than five years'  
38 experience in coal mines and therefore would meet that  
39 aspect of the prerequisite, can you see any benefit in  
40 inspectors going through the process of studying for and  
41 sitting that examination whilst working as inspectors?

42 A. I think it would probably increase their credibility.  
43 It's the experience as the manager that will increase their  
44 knowledge, but certainly their credibility would be  
45 increased if they did that. Now, a number of inspectors  
46 have been employed over the years, or promoted over the  
47 years, on the promise that they would sit for the exam.

1 But --

2

3 Q. A promise by the department or a promise by the  
4 inspector?

5 A. A promise by the inspector to the department that they  
6 would sit for the exam. Unfortunately that promise -  
7 I don't know, perhaps it was workload that made it  
8 impossible for them to complete that, so it didn't happen.  
9 I certainly do believe that experience as a mine manager  
10 puts you at a different level as an inspector.

11

12 Now, the inspectorate understands this. When I was an  
13 inspector, there was a 20 per cent bonus for holding  
14 a first class certificate of competency, and I was paid  
15 a 30 per cent attraction and retention allowance to take up  
16 the position. So, essentially, I was getting more than  
17 50 per cent of the base rate for an inspector because  
18 I held a first class ticket.

19

20 There were probably other things that went into the  
21 attraction and retention, but I think that was pretty  
22 standard for the first class tickets. So, you know, that's  
23 the experience. The department used to feel that way.  
24 I don't know what the current pay arrangements are.

25

26 Q. Can I turn now to competencies held by SSHRs and  
27 ISHRs, because we have heard in this inquiry from some  
28 SSHRs, who have spoken about their competencies and  
29 training that they have had either before taking on that  
30 role or whilst having that role, and we're interested in  
31 your view as to whether or not the competencies currently  
32 required to be held by SSHRs are sufficient.

33

34 Can I have put up on the screen, please, Mr Operator,  
35 the document MMA.001.001.017.0001. Mr Sleigh, the document  
36 that has come up there is the list of competencies  
37 recognised by the Coal Mining Safety and Health Advisory  
38 Committee, isn't it?

39

A. Yes.

40

41 Q. If we could zoom in to row 7, that row sets out the  
42 competencies required to be held by somebody who wants to  
43 nominate for or at least before they take up the role of an  
44 SSHR at a mine; that's right, isn't it?

45

A. That's right.

46

47 Q. Those acronyms or labels indicate that the

1 competencies required are the competencies to apply risk  
2 management processes, conduct safety and health  
3 investigations, and communicate information. In your view,  
4 are those competencies sufficient for someone holding the  
5 SSHR position, or ought there be any increase to them?

6 A. Those competencies are exactly the same as - if you  
7 look at line 2, there are requirements for a supervisor to  
8 have certain competencies. They are the same competencies.  
9 I would like to see an improvement in the standard for the  
10 supervisor that would then flow through to the SSHR. But  
11 currently I think it's appropriate that the SSHR have the  
12 same sort of qualifications as we expect a supervisor to  
13 have.

14  
15 Q. Turning briefly to ISHRs, and if we could zoom in to  
16 row 6, we can see there the competencies required for those  
17 who hold that position are that they have the deputy's  
18 certificate of competency and, in addition, the competency  
19 called "carry out the risk management processes"; is that  
20 right?

21 A. Yes.

22

23 Q. In your view, is that adequate for someone to  
24 discharge their functions and powers as an ISHR?

25 A. I think the functions and the powers of the  
26 SSHRs [sic] as they stand at the moment, they are  
27 appropriate qualifications.

28

29 Q. Thank you. Can we turn, then, to the --

30 A. Can I make the point, I understand there is somebody  
31 with a first class certificate of competency operating as  
32 an ISHR in New South Wales, and I certainly wouldn't be  
33 against that, either. But, no, for the ISHRs, that's an  
34 appropriate - relative to the - with all of the limitations  
35 I have on the RTO-issued competencies and so forth.

36

37 Q. Let's move to the RTO issue, as you say, because in  
38 your statement you talk about concerns that you hold that  
39 the training competencies being offered by RTOs in  
40 Queensland might not be optimum. Can you explain why it is  
41 that you hold the view that training currently available  
42 and provided to coal mine workers in Queensland is not of  
43 a particularly high standard, if that is your view?

44 A. Right. Look, it is. During the time I was with the  
45 inspectorate, we issued a document called "Recognised  
46 Standard 11". It was actually written, or predominantly  
47 written but with group input, by Kylie Ah Wong. Ms Ah Wong

1 spoke as a witness last week. So somebody with authority  
2 in the industry wrote that standard.  
3

4 One of the things it does is highlights the need for  
5 assessors to have a high level of competence.  
6 Progressively, through the work of Greg Dalliston, in his  
7 role as the - I'm not sure what the title is now, but the  
8 director of the MITAB concept, the national competency  
9 mining training advisory board, and Greg Dalliston, who  
10 will be here tomorrow, has had a very significant role in  
11 that, representing Queensland, both the inspectorate and  
12 the companies as much as the union, because he was  
13 respected as somebody that was right across those areas.  
14

15 They have put into the training competencies that an  
16 instructor for training-related competencies has to have at  
17 least three years' experience - three years' current  
18 experience - doing the sort of work that is being assessed,  
19 and it is my impression that that is not true, and nobody  
20 is auditing that aspect of the RTOs.  
21

22 Q. If I could just check one aspect of your concern about  
23 the quality of training provided by RTOs, it is that the  
24 trainers and the assessors might not actually have the  
25 relevant experience in the industry that they ought to; am  
26 I right?

27 A. Not only the trainers and the assessors, the training  
28 designers and the assessment designers, and I have a real  
29 problem with some of the assessment design, the questions  
30 that are asked in assessments.  
31

32 Q. If we might, then, to highlight that concern and to  
33 round out this topic, turn to one other of the documents  
34 attached to your statement. It is MMA.001.001.001.0001.  
35 While this document is coming up, Mr Sleigh - no, that's  
36 not what I want, sorry. I must have the wrong number.  
37 That is the number I have on the top. Mr Operator,  
38 apparently there are two documents with that number stamp.  
39 If it is not easily locatable, I can do without it.  
40

41 Mr Sleigh, you were mentioning a concern that you have  
42 that perhaps the design of the assessment is not adequate  
43 or appropriate, either. This document that I was going to  
44 bring up contains some sample questions taken from actual  
45 RTO assessments.

46 A. Yes.  
47

1 Q. And, next to it, some comments of yours about the  
2 desirability of those questions.

3 A. That's right.

4

5 Q. Mr Operator, I'm told the number might be  
6 MMA.001.001.021.0001.

7 A. That's the one.

8

9 Q. Could we zoom in, please, Mr Operator, perhaps to the  
10 box with the number 1 on the left-hand side. It's towards  
11 the top of the page. On the left-hand side there,  
12 Mr Sleigh, can we see under the heading "Question" an  
13 actual question that you encountered on an assessment for  
14 a generic induction, that is, for a mine starter going to  
15 work at a mine?

16 A. Yes, can I clarify, all of these 10 came from the one  
17 assessment, but I have to say that a number of mines have  
18 comments in mine record entries about "the questions I was  
19 asked at mines", and most of the RTOs I have ever done  
20 anything with have a similar flea in the ear. It's  
21 something that I am really passionate about.

22

23 Q. Can we use this as an example to demonstrate some of  
24 your concerns?

25 A. Yes, this is a good example.

26

27 Q. What we have on the left-hand side is an actual  
28 question taken from an actual exam from one RT0 provider;  
29 is that right?

30 A. Yes.

31

32 Q. In the middle - it was a multiple choice question, it  
33 seems - we have the answers that a candidate could select  
34 from?

35 A. Yes.

36

37 Q. On the right-hand side, we have your comment on the  
38 appropriateness of the question?

39 A. Mmm-hmm.

40

41 Q. As I understand it, using this as an example, one of  
42 your concerns is that, for example, in respect of generic  
43 induction assessments, mine starters are being asked  
44 questions which are really more appropriately geared to  
45 perhaps someone in the role of an SSE about the principles  
46 to govern a safety --

47 A. Absolutely. The person designing the legislation



1 needs to be able to answer that question, not the mine  
2 starter. If you go back to the Australian Qualifications  
3 Framework hierarchy of knowledge, that's probably at about  
4 level 8, right, above the 6 of the SSE.

5  
6 Q. So there is a disconnect, as I understand it,  
7 between --

8 A. Totally.

9

10 Q. -- the actual content required in these assessments  
11 and what is being delivered?

12 A. Absolutely.

13

14 Q. Can we just use one other example, if we turn to the  
15 next page and perhaps go to the first box and bring that  
16 one up, Mr Operator. Can we see there a question of a mine  
17 starter, in this particular exam, related to what  
18 temperature is unsafe for a coal mine worker to work at,  
19 and the answers set out a range of temperatures between 29  
20 and 30 degrees?

21 A. Mmm-hmm.

22

23 Q. And your view is that a question like that is simply  
24 neither appropriate nor necessary?

25 A. I wonder if I was to ask the people in this room  
26 whether the temperature was above or below 26 degrees, or  
27 23 degrees, what sort of an answer we would get. That's  
28 exactly the same sort of thing. How does somebody working  
29 in an underground mine know whether it is 29.4 or 29.3?

30

31 Q. Can I ask you this, then: have you got any  
32 suggestions as to how the level of training and assessment  
33 being offered by RTOs could be lifted?

34 A. Look, the sort of thing that could well happen -  
35 I wonder whether the inspectorate or the Board of Examiners  
36 should be doing audits in addition to the RT0 audits that  
37 are done by the training competency authority. They are  
38 looking at records and they are looking at competency of  
39 trainers and they are looking at a whole bunch of things  
40 and do a thorough audit on an RT0. But we are asking them  
41 to train people ready for the mining industry and to give  
42 a certificate to say, "This person is ready to go and work  
43 in a mine". Should the inspectorate - and it is probably  
44 more a function of the Board of Examiners, whether they  
45 should have an auditing function to make sure that RT0s  
46 that are approved to train people for the coal industry  
47 actually have: (a) people with experience in the mining

1 industry to the standard that is required by the national  
2 competencies; and (b) are using the materials that are  
3 appropriate.  
4

5 Q. Can we turn to one final topic, then, and that's the  
6 question of CPDs. You spoke right at the beginning about  
7 the fact that the MMAA runs effectively a CPD program for  
8 its members and associate members, and in your statement  
9 you talk about the fact that I think towards the end of  
10 this year it will become mandatory in New South Wales for  
11 those who hold certificates of competency to maintain their  
12 knowledge by engaging in CPD programs?

13 A. Yes.  
14

15 Q. Can I ask whether you are of the view that there would  
16 be any benefit in it being a requirement in Queensland, as  
17 opposed to a discretionary matter, that holders of  
18 certificates of competency undertake CPDs each year?

19 A. I have to say that the requirement in New South Wales  
20 has become overly burdensome and it is highly unlikely,  
21 I understand now, that they are going to be able to proceed  
22 with their requirement, because they have put all sorts of  
23 complications around it.  
24

25 The Mine Managers Association decided - well, in 1942  
26 initially, and scaled it up in 1975, and then in about 2004  
27 introduced the actual CPD program - that it was necessary.  
28 So without any regulation, the mine managers have actually  
29 taken on the responsibility, through their own association,  
30 of making sure their members are kept up to date.  
31

32 Q. And I take it that you think that is a good thing.  
33 What I'm asking is whether or not you think it would be  
34 beneficial if certificates of competency weren't tickets  
35 for life, but if there was a requirement mandated across  
36 the board that those holders had to engage in some CPD each  
37 year?

38 A. Provided that the mandating is not a matter of hours  
39 spent in a room or so forth, but that there is actual  
40 evidence of competence - and I would put a much higher  
41 credit for making a presentation than for attending one.  
42 But there are a couple of things that are required by the  
43 legislation in Queensland. Before you start second  
44 workings you need to submit a plan to the inspector. Now,  
45 that has to be done by either the SSE or the underground  
46 mine manager, there will be a specific responsibility in  
47 the Act or in the regulation. The people involved in doing

1 that should get credit for strata control competency.  
2 There is a requirement that before you seal a section of  
3 the mine that has been worked out by a longwall that you  
4 put in a sealing plan, and that goes into all sorts of  
5 issues around spontaneous combustion and gas management and  
6 inertisation, and it would be great if the people who  
7 actually prepare that plan got credit for their input into  
8 it, rather than doing, as happens in so many professions,  
9 "Oh, I've got to go to the Gold Coast this weekend; it is  
10 CPD time again."  
11

12 If we actually measure the things that are valuable -  
13 and certainly the presentations that are given at the  
14 managers association should have four times the credit,  
15 because they take ten times the time for somebody to  
16 present it, and in many cases there are two or three people  
17 that are contributing to the presentation - one stands up  
18 the front. All of those people should get credit.  
19

20 So, yes, there is value in a CPD program. Yes,  
21 perhaps some people will need to have it mandated. All  
22 I say is that the Mine Managers Association is proof that  
23 the quality of people holding those positions have taken it  
24 on off their own bat and value the end result of it.  
25

26 MS O'GORMAN: Thank you, Mr Sleigh. Mr Martin, those are  
27 the questions that I have.  
28

29 THE CHAIRPERSON: Thank you. Ms Dann?  
30

31 MS DANN: Thank you, Mr Martin, I have no questions.  
32

33 THE CHAIRPERSON: Mr Roney?  
34

35 MR RONEY: I have no questions, Mr Chairman.  
36

37 THE CHAIRPERSON: Mr Trost?  
38

39 MR TROST: I have no questions, thank you.  
40

41 THE CHAIRPERSON: Mr Crawshaw?  
42

43 MR CRAWSHAW: No questions, Mr Chair.  
44

45 THE CHAIRPERSON: Thank you. Ms Holliday?  
46

47 MS HOLLIDAY: Hopefully I'm not wrong in my estimate, but

1 I think I will only be 10 minutes.

2

3

**<EXAMINATION BY MS HOLLIDAY:**

4

5 MS HOLLIDAY: Q. Mr Sleigh, you have prepared  
6 a statement?

7

A. Yes.

8

9 Q. And submitted it to the board?

10

A. Yes.

11

12 Q. That was done as representing the Mine Managers  
13 Association of Australia?

14

A. That's correct.

15

16 Q. Not meaning any criticism of you, but it is important  
17 that the factual basis for that is correct, isn't it? In  
18 other words --

19

A. Absolutely. I mean, that is the position - as  
20 a result of discussions, that's the position. But there is  
21 certainly every possibility that I have made an error in  
22 representing their views or that I've made an error of  
23 fact, they have a misunderstanding.

24

25 Q. Mr Operator, if we can bring up Mr Sleigh's statement,  
26 it is SLJ.001.001.0001 - is there also a hard copy to give  
27 to Mr Sleigh? No. We are also going to bring up  
28 a statutory declaration of Mr Newman, so it might have  
29 assisted you in terms of having a hard copy just to compare  
30 the two.

31

32 In relation to paragraph 33, Mr Operator, if we can go  
33 to it, you state there that the association believes that  
34 the SSE and a large proportion of mining inspectors should  
35 hold a first class certificate of competency. It would  
36 take you as no surprise that in an ideal world that is  
37 clearly the position of the inspectorate also. But you  
38 would have to recognise, Mr Sleigh, that there are a number  
39 of limitations to that occurring in reality?

40

A. In view of the way that people were unwilling to  
41 accept the reality of some of Mr Taylor's evidence,  
42 I wonder. I think that's an interesting concept. So let's  
43 have a look at the reality that is being expressed.  
44 I wonder, is it really unrealistic to expect? For example,  
45 in the United Kingdom in the National Coal Board days, they  
46 had no difficulty attracting inspectors because they used  
47 to pay them 20 per cent more than mine managers. Right?

1 So they didn't have to ask for applicants, they tapped  
2 people on the shoulder and applicants weren't looked for.

3 So, you know, I don't know whether that is  
4 inconsistent with the reality. I've read Mr Newman's  
5 statement, so I guess I'm aware of what you are talking  
6 about of "reality".  
7

8 Q. When you talk about Mr Newman's statement - just to  
9 make sure that we are talking about the same document - in  
10 relation to Mr Newman's statement, it is NPE.001.002.0001.  
11 If I can take you to paragraph 10 - this statutory  
12 declaration was only sworn this morning, so it might not be  
13 the one that you are referring to?

14 A. Yes, it is. I saw a copy of it this morning.  
15

16 Q. You have read it? Okay. In relation to paragraph 10,  
17 Mr Newman expresses the fact that, as I have just  
18 articulated, in an ideal world, the large proportion would  
19 hold First Class Mine Manager's Certificates of Competency?

20 A. Well, I agree with that statement.  
21

22 Q. And then going through, at paragraph 11, some of the  
23 following factors of the reality, first of all - and  
24 Ms O'Gorman has already just taken us to some material in  
25 relation to the Board of Examiners - there is a very  
26 limited pool of persons holding that first class  
27 certificate in Queensland?

28 A. No, actually, that question wasn't put to me. We were  
29 looking at the age and the fact that the numbers are  
30 dropping off over a period, but the number, I think, of 40  
31 to 50 year-olds was something like 49. There are 11 or 12  
32 underground mines. So it is not as though there is an  
33 absolute shortage of underground mine managers, it is the  
34 proportion of underground mine managers who are over 50  
35 that is alarming. But a number of people do, as I did and  
36 as Mr Taylor did, spend the last - and I think in  
37 Mr Newman's evidence he made the point that they - I mean,  
38 I hesitate to say "give back to the industry", but take on  
39 a role that is of interest to them during that period of 50  
40 plus.  
41

42 Q. The difficulty, of course, is an inspectorate can only  
43 appoint from the persons who apply for a position. You  
44 accept that, Mr Sleight?

45 A. Oh, and I think the number of people applying for the  
46 positions would go up if the salary was appropriate.  
47

1 Q. We will get to that in terms of the factors, but in  
2 terms of a pool --

3 A. Well, okay, so there is a limited pool, but the pool  
4 is not totally taken up by the 10 operating coal mines.  
5

6 Now, we've got one mine that is under review that -  
7 the point has been made a number of times - has four first  
8 class certificate holders, and another couple of  
9 candidates, as I understand it.  
10

11 I work for a contracting company that has - the  
12 chairman is a first class certificate holder, the New South  
13 Wales general manager is a first class certificate holder,  
14 the Queensland general manager is a first class certificate  
15 holder, and they have engaged me and another first class  
16 certificate holder to look at a project. So there is no  
17 shortage of first class certificate holders in the world.  
18

19 Q. Sorry, in the?

20 A. In Queensland.  
21

22 Q. In Queensland? Well, if you add up the numbers --

23 A. So there are five, in that particular project, having  
24 input into that project. So it's not as though we're  
25 totally rare beings.  
26

27 Q. No, that's not the suggestion, it is the fact that --

28 A. Yes, there is a limited pool. There is a limited  
29 pool --  
30

31 THE CHAIRPERSON: Sorry, Mr Sleigh. Ms Holliday had  
32 better ask her question, I think.  
33

34 THE WITNESS: Yes.  
35

36 MS HOLLIDAY: Q. In terms of the factors that are  
37 present reality for the inspectorate, it is suggested that  
38 one of those is the fact that there is a comparably limited  
39 pool of persons holding that. I mean, we can add it up, it  
40 adds to about 130-odd in Queensland that hold that  
41 certificate.  
42

43 A. Right. Okay.  
44

45 Q. And that there is an ageing demographic of those  
46 persons?

47 A. Which may be to the advantage in terms of experience  
and level of exercise that is required to hold the job.

1  
2 Q. And if we look at the third point that is made, that's  
3 in terms of the ability or challenges that are faced by the  
4 inspectorate to attract and retain those persons with the  
5 existing remuneration structure. That was the purpose for  
6 the original question, Mr Sleigh: in an ideal world, there  
7 would be a large proportion of coal mining inspectors, but  
8 the reality is, do you accept, that the remuneration of an  
9 inspector was at one stage in the order of 60 to  
10 80 per cent of industry remuneration, but it is now at  
11 around 30 to 40 per cent? Now the government has budgets  
12 that it has to meet, so it is not the answer that the  
13 government can just pay the same as industry. Just like in  
14 any other role in government, on occasions, it cannot meet  
15 the remuneration that is being offered in the private  
16 sector.

17 A. The government's funding of the Mines Inspectorate is  
18 paid for by a levy on the mining industry. So the mining  
19 industry is paying the wages of the inspector, and if they  
20 are paying significantly higher wages to their operators,  
21 I'm sure they would be quite happy to be paying the same  
22 sort of levels of remuneration to the department.

23  
24 Q. And the fourth factor is that, in terms of the roles,  
25 they are generally located in regional centres where you  
26 have the issues that, at a certain age, people reach the  
27 position that they no longer wish to do that fly-in -  
28 sorry, that they are doing the fly-in/fly-out work rather  
29 than having to be located in a regional centre?

30 A. You have probably asked the wrong person that  
31 question, because for the time I was an inspector I flew in  
32 and flew out from Sydney. I flew home every Friday evening  
33 and flew back every Sunday evening. So, you know, it's  
34 not - yes. I don't accept any of those four propositions.

35  
36 Q. You just say that because it is funded by a levy on  
37 industry, the government should just pay whatever the  
38 amount of remuneration is that should attract a first-class  
39 certificate holder?

40 A. The minister has been very straightforward in saying  
41 he would do whatever he could to improve the quality of the  
42 inspectorate. But it is not about numbers. It is about  
43 the quality of the inspectorate.

44  
45 Q. Moving on to that point, at paragraph 35 of your  
46 statement - so we're going to have to flick back to  
47 SLJ.001.001.0001 at 0011 - do you remember I said,

1 Mr Sleigh, that I wasn't intending any criticism, but it is  
2 more to ensure that it is factually accurate, what is being  
3 put forward in your statement. You say at paragraph 35, in  
4 relation to the level of competency - you set out the AQF  
5 levels and you say that some current inspectors are  
6 educated to the level "apply and monitor", which is the 4  
7 level, and then you set out 5 and 6. You have actually set  
8 out numbers at paragraph 65 and paragraph 66 of your  
9 statement in relation to who holds first class tickets, and  
10 so on.

11

12 The position actually - and I can take you to  
13 Mr Newman's statement if necessary - is that 11 out of the  
14 13 mining inspectors are at 5 or 6 on the AQF level of  
15 competency, and he swears to that in his statement.

16 A. Mmm.

17

18 Q. And that the remaining two have a significant deal of  
19 experience in industry.

20 A. I'm sorry? You are saying 5 and 6. Does he separate  
21 5 from 6?

22

23 Q. He does. If I can take you to, again, the statement  
24 of Mr Newman, which is NPE.001.002.0001, he states at  
25 paragraph 8 of his statement that six have AQF level 6, and  
26 he sets out their competencies, and five with AQF level 5?

27 A. Okay. Now --

28

29 Q. And in relation to 8(c), the remaining two are mines  
30 inspectors. So my proposition to you is, only to ensure  
31 that your statement is accurate, do you accept that those,  
32 as per the sworn statutory declaration of Mr Newman, are  
33 actually the levels of experience held by the mining  
34 inspectors in the inspectorate?

35 A. I don't dispute Mr Newman's numbers. However, can  
36 I take you back to 2014 --

37

38 Q. The question was just whether you accepted the numbers  
39 as accurate, Mr Sleigh?

40 A. I don't dispute Mr Newman's numbers.

41

42 Q. You then at paragraph 37 of your statement talk about  
43 the Board of Examiners and that some of those hold  
44 qualifications at level 4, and later on in your statement  
45 you state that that causes concern.

46 A. Yes.

47



1 Q. If I can take you to paragraph 15 --

2 A. That's consistent with Mr Newman's statement.

3

4 Q. Paragraph 15 of Mr Newman's statement speaks about the  
5 fact that, of the board - there are 12 members of the  
6 board - eight of them hold first class tickets and three  
7 hold either deputy or open-cut examiner certificates of  
8 competency?

9 A. Which is level 4.

10

11 Q. Are you suggesting that the competency of the board is  
12 in question here, Mr Sleigh?

13 A. The role of the board, the functions of the board -  
14 and I don't have the wording from the Act in front of me,  
15 but it is in my statement - is very high level on the AQF  
16 knowledge hierarchy. It is not a representative  
17 organisation, it is actually a policy formulation  
18 organisation and a qualifying organisation. It is very  
19 different to, for example, the Coal Mine Safety and Health  
20 Advisory Council, which is quite deliberately there to  
21 represent the various bodies in the industry.

22

23 So in the history of the board up until the last two  
24 boards, there have only been two people that I'm aware of  
25 who didn't have a first class certificate of competency  
26 that were on the board. One was the president or chair or  
27 something of the MITAB and the other one was Greg  
28 Dalliston.

29

30 Greg Dalliston's role - he has an incredible body of  
31 knowledge in relation to the national competency process.

32

33 Q. But he is an example, isn't he, Mr Sleigh, of the fact  
34 that you might not technically hold your First Class Mine  
35 Manager's Certificate, but, nonetheless, you have such  
36 a depth of experience that you can bring to the board  
37 critical importance?

38 A. Just a moment. I'm not giving Mr Dalliston - I'm  
39 a great respecter of Mr Dalliston. I'm not giving him the  
40 credit of being equivalent to a mine manager. His  
41 contribution was in relation to his outstanding knowledge  
42 of the competency system. The AQF hierarchy of knowledge  
43 also deals with, if you read the details on it, the subject  
44 matter, and around the subject matter of units of  
45 competency, Greg Dalliston was exceptional and probably the  
46 most knowledgeable person in Australia on the subject. But  
47 that doesn't make him equivalent to a mine manager.

1  
2           The concept of the board - we used to have, certainly  
3 in the higher-age range of the first class ticket qualified  
4 gentlemen, Brian White, who was a professor, an adjunct  
5 professor now, of mining engineering at a number of  
6 universities, but has spent a career in academia but has  
7 experience as a mine manager. He brought a great  
8 contribution in terms of the university sector to the  
9 board. And we had a couple of guys whose contribution was  
10 the knowledge of the job of a mine manager, and the job of  
11 a mine manager covers the under-manger and the deputy and  
12 also the open-cut examiner.

13  
14 Q.    So, Mr Sleigh --

15 A.    So we had all of the skills. But now we have an OCE  
16 to represent OCEs. That's not the same level for a policy  
17 formulating body.

18  
19 Q.    Are you saying that the Board of Examiners needs to be  
20 constituted, without exception, with 12 members holding  
21 first class certificates?

22 A.    I don't believe it needs to have 12 members for  
23 a start. So the answer to that question is no.

24  
25 MS HOLLIDAY:    I have no further questions.

26  
27 THE CHAIRPERSON: Q.    What proportion do you think there  
28 should be of whatever number of members there are?

29 A.    Look, for 15 of the 20 years that the board has  
30 existed, there was one of the eight, I suspect - just off  
31 the top of my head, I think there would have been eight on  
32 the board - one of the eight didn't have a first class  
33 certificate of competency.

34  
35           The important thing to recognise with the Board of  
36 Examiners is it is a policy formulation as much as an  
37 authorising body. It is not a data gathering body in the  
38 sense that the Coal Mine Safety Advisory Council is.

39  
40 Q.    I think before when Ms Holliday was questioning you  
41 about paragraph 8 of Mr Newman's statement you started to  
42 go back to 2014; you wanted to raise something about that?

43 A.    Yes.

44  
45 Q.    What was that about?

46 A.    Okay, at the time when I was the regional inspector we  
47 had three qualified managers in the Mackay office and I was

1 the only qualified manager in the Rocky office, but I was  
2 supported by somebody who lived in Brisbane and flew in and  
3 flew out from a base at Simtars, but flew in and flew out  
4 to do inspections.

5  
6 Progressively, that person that flew in and flew out  
7 was promoted to chief inspector, and one of the people from  
8 the Mackay office was promoted to deputy chief inspector  
9 and still holds the position, and the other two had their  
10 contracts - the other three of us had our contracts  
11 terminated for various reasons. As a result, we no longer  
12 have qualified managers in Rockhampton or Mackay office,  
13 and that's important.

14  
15 Now, we do have a qualified - Mr Newman's statement is  
16 true, we have a gentleman who was an open-cut mine manager  
17 in New Zealand, and under mutual recognition is entitled to  
18 have a first class certificate of competency in Queensland,  
19 but he doesn't have experience managing an Australian  
20 high-production coal mine, which all of the other people  
21 that I'm talking about have had.

22  
23 So we no longer have the "establish and maintain"  
24 level of competence in the offices in Rockhampton and  
25 Mackay. That's restricted to the head office. Really,  
26 their philosophy is not so much establish and maintain, but  
27 to postulate and hypothesise and strategise - a different  
28 level of application of knowledge. That has been lost.

29  
30 So it was great. For example, I made a rule when  
31 I was the regional manager that the only person that could  
32 handle a second workings application or a sealing plan  
33 application was somebody with a first class ticket, and we  
34 had no difficulty handling that with our level of  
35 competence.

36  
37 We currently have two mines other than Grosvenor that  
38 are no longer in operation, one because of an inundation,  
39 the other one because of a spontaneous combustion leading  
40 to an explosion. One of those would have been covered by  
41 the sealing management plan, the other one by the second  
42 workings plan. Now, I don't know the details of any of  
43 those, but that sort of concern was the reason that I had  
44 first class certificate holders managing those sorts of  
45 documents.

46  
47 I have to say, the Act worked, because the object of

1 the Act is to stop injury to people, as set out in  
2 section 7 or 8 of the Act, and nobody was injured in either  
3 the inundation or the explosion and spontaneous combustion.  
4 So that part of the Act worked. But the strategy that  
5 preceded it concerns me deeply. I am sorry, I feel myself  
6 getting emotional about this. I don't want it to come  
7 across as disrespect. This is a very important issue to  
8 me.

9  
10 THE CHAIRPERSON: Thank you, Mr Sleigh. Ms O'Gorman?

11  
12 MS O'GORMAN: Mr Martin, I don't have any further  
13 questions, if there is nothing further from the board?

14  
15 MR CLOUGH: Q. Mr Sleigh, just a couple of quick ones,  
16 because we haven't touched on it: do you have any  
17 familiarity or exposure in what the New South Wales Mines  
18 Rescue Service does in terms of training?

19 A. Yes - oh, no, well, I have superficial knowledge.  
20 They have done some wonderful work in relation to setting  
21 up virtual reality units so that, essentially, you could  
22 walk in to a room and feel the conditions that are there,  
23 yes.

24  
25 Q. So the obvious question is, are you aware of any  
26 similar arrangement in Queensland?

27 A. Look, I understand work was being done to bring  
28 something of that order to Simtars. I don't know how far  
29 it has got. It was happening at the stage when my contract  
30 was terminated with the department.

31  
32 Q. And notwithstanding that the Queensland Mines Rescue  
33 Service may have a different operating model than New South  
34 Wales, would you see any merit in engaging with Queensland  
35 Mines Rescue to provide more training to industry?

36 A. Look, I see a tremendous amount of value in using  
37 rescue stations as a training place, because, yes, they are  
38 dealing with the day-to-day problems.

39  
40 I spent three years working at a rescue station in the  
41 south coast. Now, I used it as an opportunity to study,  
42 but at the same time, I learnt more about learning, about  
43 how adults learn, during my time at the rescue station  
44 because I was also instructing, and that was incredibly  
45 valuable to me in my early 20s.

46  
47 MR CLOUGH: That's great. No more questions from me,

1 thank you.

2

3 THE CHAIRPERSON: Mr Sleigh, thank you for your evidence.  
4 You are excused.

5

6 <THE WITNESS WITHDREW

7

8 THE CHAIRPERSON: Are they the only witnesses for today?

9

10 MS O'GORMAN: That is the last witness for today. Perhaps  
11 if we adjourn until tomorrow morning, Mr Martin?

12

13 MR CRAWSHAW: Mr Chair, just before you adjourn,  
14 I understand Mr Lewis is going to give evidence tomorrow.  
15 There was a question from you earlier in the week about  
16 a statement, and Mr Roney yesterday was cross-examining on  
17 the basis of evidence that might be forthcoming.

18

19 THE CHAIRPERSON: Yes.

20

21 MR CRAWSHAW: We haven't yet seen a statement.

22

23 THE CHAIRPERSON: No, you are not alone in that.

24

25 MR CRAWSHAW: It makes it very difficult to get  
26 instructions, never mind comply with the practice guideline  
27 which requires us to work out which documents to notify  
28 will be required for cross-examination.

29

30 THE CHAIRPERSON: Yes. Mr Crawshaw, the statement was  
31 coming on Monday evening, and then, as you heard yesterday,  
32 it was coming last evening. The most recent one, Mr Roney,  
33 is it very shortly coming?

34

35 MR RONEY: That's the information I have, yes.

36

37 THE CHAIRPERSON: So we're comforted by that. That's the  
38 information that Mr Roney now has, that it is shortly to  
39 arrive, and it will be sent to you as soon as it does.

40

41 MR CRAWSHAW: Thank you, Mr Chair.

42

43 MS O'GORMAN: Mr Martin, just before we do adjourn, might  
44 I submit tender list J. It is from yesterday, 19 August.

45

46 THE CHAIRPERSON: Yes. Thank you.

47

1 MS O'GORMAN: I ask that those documents be admitted as  
2 exhibits.

3  
4 THE CHAIRPERSON: Thank you. The documents listed on  
5 tender list marked J will be admitted into evidence.

6  
7 MS O'GORMAN: Thank you.

8  
9 THE CHAIRPERSON: 10 o'clock tomorrow, thank you.

10  
11 **AT 1.14PM THE BOARD OF INQUIRY WAS ADJOURNED**  
12 **TO FRIDAY, 21 AUGUST 2020 AT 10AM**

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