
TRANSCRIPT OF PROCEEDINGS

The attached transcript, while an accurate recording of evidence given in the course of the hearing day, is not proofread prior to circulation and thus may contain minor errors.

2015/16 HAZELWOOD MINE FIRE INQUIRY

ANGLESEA

FRIDAY 31 JULY 2015

BEFORE:

THE HONOURABLE BERNARD TEAGUE AO - Chairman

MRS ANITA ROPER - Board Member

MR PETER ROZEN - Counsel Assisting

MR RICHARD ATTIWILL QC - State of Victoria

MS RENEE SION - State of Victoria

MR ROBERT TAYLOR - Alcoa of Australia

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1 CHAIRMAN: Yes, Mr Rozen.

2 MR ROZEN: Morning members of the board. There is just one
3 minor issue of housekeeping which I'd like to deal with
4 before we call the first witness, and it concerns a very
5 small mistake in the transcript, what appears to be a small
6 mistake anyway. I- think it can be brought up on the
7 screen - at page 31. If we just scroll down to line 27,
8 please. There is a sentence there, the third word in that
9 line, that starts, "That allows us to stack overboard and
10 up behind us we mine through" and I think the word
11 "overboard" there should be "overburden". I don't think
12 that is particularly controversial. I don't know if anyone
13 else has any other matters.

14 CHAIRMAN: Can I suggest that you liaise with Mr Attiwill and
15 Mr Taylor in relation to potential problems and with the
16 transcript people. Only if there appears to be a problem
17 will it be necessary to deal with it in this way. I think
18 that is a credit, that there only appears to be that one
19 that you want to have dealt with at this stage.

20 MR TAYLOR: We accept that is a valid correction. I'll check
21 with Mr Rolland that that is in fact what he thinks he
22 said.

23 MR ROZEN: With that matter being attended to, I'll call the
24 first witness for this morning, Robert Lindsay Barry.
25 Mr Barry's statement appears behind tab 8 and the code is
26 VGSO.1002.001.0001.

27 <ROBERT LINDSAY BARRY, sworn and examined:

28 MR ROZEN: Good morning, Mr Barry. Welcome back to the
29 Hazelwood Mine Fire Inquiry, albeit in a different location
30 from the last time you were of assistance. Mr Barry, can
31 you just repeat for us, please, your full name and your

1 work address?---Robert Lindsay Barry. I work at
2 61 Separation Street, North Geelong, which is the CFA
3 regional headquarters.

4 Since the time of making your statement, we understand you have
5 had a promotion. You are now assistant chief officer; is
6 that correct?---That is correct.

7 At the time you made your statement, you were regional director,
8 but still based in the same location, in Geelong; is that
9 right?---That is correct.

10 Mr Barry, I don't think we need to go through your background in
11 the CFA. It was all dealt with in some detail on the last
12 occasion that you gave evidence in this inquiry last year,
13 but perhaps if we can just summarise it. How long have you
14 been with the CFA?---Around about 39 years now, both as a
15 volunteer before I joined the career staff and I joined the
16 career staff in 1982, so I have been on the staff
17 approximately 33 years.

18 Did you also continue to operate in a voluntary capacity after
19 you joined the career staff or was that the end of your
20 volunteering?---No, it wasn't. A couple of times through
21 my career I have been a volunteer and today I'm currently a
22 volunteer as well.

23 Right. The entire time you have been with the CFA, have you
24 worked in this region, as in Geelong, or have you been
25 posted in different places around the state?---I have been
26 placed in different locations around the state, but I
27 returned to Geelong on 5 June 1995 and I have been in
28 Geelong ever since.

29 Thank you. Mr Barry, for the purposes of the inquiry, you have
30 made a witness statement, dated 16 July 2015. I hope you
31 have got a copy in front of you. You should see there is

1 numbered tabs in that folder. It should be behind
2 tab 8?---Yes.

3 Have you had a chance to read through that statement before
4 coming along to give evidence this morning?---Yes, I have.
5 Are there a couple of minor changes you wish to make to the
6 statement?---Yes, there is.

7 Perhaps we'll go through those sequentially, if we could?---Yes.
8 The first change is just about my current rank and the
9 promotion that I received to assistant chief officer.

10 So the very first line, we would delete the words "regional
11 director" and we should write in "assistant chief
12 officer"?---That is correct. And the only other change
13 that I have is at paragraph 22.1, where at the time of
14 making the statement, I referred to, "At the date of this
15 statement, approximately 15, 16 hectares has already been
16 covered at the mine." I have had the opportunity to tour
17 the mine this week and am in constant contact with the mine
18 and it is my understanding now that that is approximately
19 23 hectares.

20 So that is the current position, but as at the date of making
21 the statement, that was the position, it was 15 to
22 16?---That's correct.

23 So it is accurate in that sense?---It is accurate in that sense.
24 So rather than amending the statement, we might leave it like
25 that and just note that your evidence is that as at the
26 present time, your understanding is they have got to about
27 23 hectares?---That is correct.

28 Was there anything else?---No, that is it.

29 I think there might be one other matter that I picked up, and
30 you can tell me. If you go back to paragraph 13, which is
31 on page 4, you'll see on the third line the sentence

1 starts, "On Wednesday, 8 July 2015, the operations office
2 for the Surf Coast area." Should that be the operations
3 officer?---Yes, that is correct.

4 Mr Alymer?---Alymer.

5 And that is the position he holds, operations officer, Surf
6 Coast area?---That's correct.

7 So if we add the letter "r" at the end of the word "office",
8 then that is fine?---That's correct.

9 Other than those changes, are the contents of your statement
10 true and correct?---They are.

11 I tender the statement.

12 #EXHIBIT 17 - Witness statement of Mr Barry.

13 Mr Barry, there is a number of attachments to your statement.

14 Perhaps if we could just go to one briefly at the moment.

15 It is Attachment A and in our coding, the last four digits
16 are 0010. If you could flip over to Attachment A for a
17 moment. Do you have that in front of you? Just to help
18 you navigate your way round, if you look in the top
19 right-hand corner, each page has got a unique code and this
20 one, the code is VGSO and a series of digits, the last ones
21 of which are 10?---I'm still having trouble finding it.

22 I'll get my instructor to come up and help you find the page,

23 Mr Barry?---Yes, I have got it now.

24 I'm right, aren't I, that is the statement you made when you
25 previously gave evidence in the Hazelwood Mine Fire Inquiry
26 when we were looking at the Hazelwood Mine fire?---That's
27 correct.

28 And you've attached that because one of the issues you address
29 in your statement and one of the matters that is of
30 considerable interest to the board is to understand the
31 differences between the Hazelwood Mine and the

1 Anglesea Mine, particularly from the point of view of mine
2 fire?---Yes.

3 You have set out in considerable detail in that statement the
4 experience you had as incident controller. I think you
5 spent the most number of days as incident controller at the
6 Hazelwood fire?---That's correct.

7 You're incident controller for longer than any other CFA person
8 was incident controller?---(Witness nods)

9 From memory, on the previous occasion you gave evidence, you
10 coined the memorable phrase that fighting the fire at
11 Hazelwood was like eating an elephant?---Yes, I did make
12 that statement and that has been used several times since.

13 It will follow you around for the rest of your CFA days,
14 Mr Barry?---I think it will.

15 That is very helpful and we're grateful for that. If I can go
16 back to the statement you have made here, so if you go back
17 to the first page of the statement. In paragraph 2, you
18 confirm that you were at the Hazelwood Mine fire for five
19 separate rotations, that is for five periods over a period
20 of about a month you were there as the incident
21 controller?---Yes, that's correct. I think my first day at
22 Hazelwood was on 19 February and I completed my last
23 rotation on 21 March.

24 During the course of the time that you were incident controller,
25 due to your efforts and obviously the efforts of the large
26 team that was working for you, that fire was brought under
27 control?---That's correct.

28 It goes without saying that that was an enormous task by all
29 that were involved, particularly the resources that were
30 under your control?---Yes, that is correct. At the time I
31 indicated, at the last hearing that I attended, that I

1 believed it was the biggest fire, in a structural sense,
2 that the CFA has been involved in in its history, outside
3 of wildfire.

4 Clearly, as you would understand, it is in that context that
5 this board of inquiry comes to look at the risks associated
6 with the Anglesea Mine and there obviously are a number of
7 differences and we'll address some of these in your
8 evidence, but one of the most significant differences is
9 whereas at Hazelwood you had a working mine, with employees
10 there and equipment and a control room and a range of other
11 facilities that you were able to make use of, what the
12 board is dealing with here is a situation where after
13 31 August, the Anglesea Mine will not be an operating
14 mine?---(Witness nods)

15 Can I ask you this: for the purposes of giving your evidence,
16 have you actually been to the Anglesea Mine?---Yes, I have.
17 I've been there several times over the years I have been
18 involved in this region. However, I toured the mine last
19 Monday. I toured the exterior of the mine and travelled
20 the tracks abutting the mine and also met with mine
21 management and toured the inside of the mine and had the
22 opportunity to discuss further our arrangements for the
23 post-closure.

24 You said that you had some previous visits to the mine, or you'd
25 been there previously in your general role. What took you
26 there on previous occasions?---Look, mainly from a
27 preparedness sense. I was the operations manager for what
28 we call District 7 - back when I started, it was called
29 Region 7 - and, as I said, I started there on 5 June 1995
30 and I had the responsibility of fire suppression and
31 preparedness for that district and, of course, Anglesea has

1 always - the Great Ocean Road, in particular the townships
2 along the Great Ocean Road, have always been of high fire
3 risk to us as a fire service and our levels of preparedness
4 on an annual basis, and part of that was reviewing our
5 readiness and preparedness. I have had a great association
6 with the Anglesea fire brigade and its members,
7 particularly in preparing for summer, and that was my role
8 at that particular time. So through that period I have
9 toured that bush, particularly with the ex-captain of the
10 brigade, Bill Bubb, who has a sound knowledge of the area,
11 and he's pointed out various aspects of the risk to
12 Anglesea of the landscape, particularly the open heathlands
13 and the abutting national park.

14 Thank you. If I can take you to paragraph 5 of your statement
15 on page 2. You note there that as with other witnesses
16 that have come before this inquiry yesterday, you were
17 responding to specific questions that were asked of the CFA
18 in a letter that was sent to the CFA by solicitors to the
19 inquiry?---That's correct.

20 A decision was made within the CFA that there would be a
21 division of responsibility between yourself and
22 Mr Mackenzie, who is the next witness, as to who would
23 answer which of the questions that had been asked in that
24 letter?---That is correct.

25 And as you say in paragraph 5, the decision was taken that you
26 would answer questions numbered 4-8 and Mr Mackenzie would
27 answer questions 1-3, and without going to them
28 specifically, Mr Mackenzie will deal with matters that are
29 local, the local CFA response, whereas you're dealing with
30 broader questions of the interaction between the Country
31 Fire Authority and Alcoa?---That's correct, and

1 Mr Mackenzie is a lieutenant within the Anglesea brigade
2 and has been so for many years.

3 At paragraph 6, you note that from a firefighting perspective,
4 and you're probably in a better position to make these
5 observations than anyone else around, there's an important
6 difference between the Anglesea Mine and the
7 Hazelwood Mine. You note that that difference is that
8 unlike the Hazelwood Mine, those parts of the Anglesea Mine
9 which have previously been mined have been reclaimed and
10 that process of reclaiming means that unlike the Hazelwood
11 Mine, the Anglesea Mine does not have large areas of
12 uncovered batters and you go on, "As I described in my
13 earlier statement to the inquiry, one of the major issues
14 with fighting the Hazelwood Mine fire was the height, size
15 and number of these batters. This is not a feature of the
16 Anglesea Mine." I just stop there and invite you to expand
17 on that and particularly the experience that you had of
18 dealing with the fire at the Hazelwood Mine, particularly
19 on the northern batters?---Yes. The two mines obviously
20 have similarities but are completely different. The first
21 big difference, of course, is the actual size of the mine,
22 Anglesea compared to Hazelwood, and you're correct in
23 saying particularly the northern batters and the southern
24 batters that we extensively worked on in the Hazelwood Mine
25 were of several levels, with batters ranging from 50-70
26 metres in height or greater and at times there could be a
27 difference of four to five levels of batter within the mine
28 face, where predominantly the Anglesea Coal Mine is a
29 single coalface and at present, obviously a lot of those
30 batters have been covered with overburden and reclaimed,
31 which only leaves virtually the working face, which is

1 particularly the western end of the Anglesea Mine, that is
2 actually exposed.

3 We'll come back to that. I wonder if we can have a look at a
4 couple of photos from your first statement. That might
5 assist us in understanding this evidence. If we can go to
6 page 18. So if you flip forward to Attachment A. The last
7 four digits are 0018?---Yes. What page was it again?

8 Page 18 of the statement. It is actually page 9 of the second
9 statement, but if you look at the numbers in the top
10 right-hand corner, it is 18?---Yes, I have got it.

11 There is two photos. The top one shows batters on fire and the
12 bottom one shows - perhaps if we start with the bottom one.
13 If we can just scroll down to the bottom of the page,
14 please. I think - you might be able to tell us, Mr Barry.
15 Are we looking at the northern or southern batters there at
16 the Hazelwood Mine?---It is hard to say, but I think that
17 is towards the northern end as it comes around the bend
18 into the southern area of the mine, which would have been
19 what we called an extensive Bravo sector, into Charlie
20 sector, of the mine.

21 Probably for our purposes, it doesn't really matter whether it's
22 the northern or the southern, but it demonstrates, does it
23 not, the stepped nature of the batters, that you, I think,
24 were just describing?---Yes, and I'm looking here now, so
25 I'll correct that. It is actually in Charlie sector and it
26 is the area where the concrete ramping is, adjacent to the
27 area they call the knob, which gave us significant
28 difficulty in the suppression activities of that particular
29 fire. But, yes, the batter is clearly shown there and they
30 range from three levels at the - I will say the northern
31 end and as you move south, then the batters actually

1 increase.

2 If we go back to the previous page, page 16, two pages earlier,
3 I think we get a graphic demonstration of the scale?---You
4 do.

5 Do you see the top photo on page - - -?---Page 16?

6 Yes, page 16?---That is a very clear indication of the height of
7 the batter. The two appliances that are located at the
8 bottom there, one is an aerial appliance and the other one
9 is a CAFs unit. The aerial appliance was used to enable us
10 to apply compressed air foam over that entire batter and
11 the overall height of that appliance would only reach to
12 about halfway up that batter, so you would be looking about
13 50, 60 metres plus in height of that particular batter
14 there that is showing.

15 That is the northern part of the Hazelwood Mine that we're
16 looking at there, is it not?---It is hard for me to say
17 exactly where it is, but the important point there is that
18 it illustrates the actual height of the batter.

19 And the difficulty of the task that was confronting you in
20 extinguishing the fire that was burning on that
21 batter?---The purpose of the photo was to indicate this was
22 the first time, in our knowledge, that aerial appliances
23 had been used with CAF units and the purpose of the aerial
24 appliance is to gain the elevation to apply the foam on the
25 upper levels of the batter.

26 You're testing my memory. CAFs is compressed?---Air foam.

27 And I think I'm right in saying that what appears to be a road
28 there that's just above the highest parts of the foam, that
29 batter actually then continues further beyond the top of
30 the photograph, does it not?---That is correct.

31 That is actually not the top of the batter?---That is correct,

1 there would be other batters above that.

2 I think you did mention earlier, but the stepped nature of the
3 batters - I think the steps are known as benches or berms;
4 is that right?---My understanding, they would be benches.
5 They're virtually there to allow the access to each batter
6 as the mine went down.

7 The significance of those from a firefighting point of view?

8 Were they of assistance or did they make the task more
9 difficult?---We would not have been able to access the
10 actual face of the mine unless we were able to drive and
11 have our appliances on each level at the bottom of each
12 batter. So it allowed us to move down into the mine and
13 work on each batter. We actually put in a system of
14 suppression there, where we gradually worked across the
15 batter in a systematic approach and we're able to do that
16 and break up the batters into sections and the benches
17 actually assisted us in actually segregating, or if you put
18 it in technical terms - I don't like using the term - but
19 to break it up into bites of the elephant.

20 There is no escaping that elephant. You make the point in
21 paragraph 6.1 that those aspects of the Hazelwood Mine are
22 not replicated at Anglesea, in part because firstly of the
23 scale of the mine itself and we've also heard evidence that
24 the overburden to coal ratio is very different with the
25 Anglesea Mine as compared to the Latrobe Valley mines, and
26 the consequences of that, or one of the consequences, is
27 that a greater quantity of overburden has been available to
28 do rehabilitation on an ongoing basis. As you say, there's
29 been a covering of the areas of the mine that have
30 previously been mined out. Then at 6.2 you point to, and
31 this is a related point - this is back on page 2 of your

1 statement?---Yes, I have got it.

2 "The same quantities of surface fuel which were present at the
3 Hazelwood Mine are not present at Anglesea. These surface
4 fuels were a feature of the Hazelwood Mine, which allowed
5 the fire in that mine to spot and spread at a far greater
6 rate than is likely in the context of the Anglesea Mine."
7 We know from the first inquiry that the inquiry concluded
8 that what initiated the fire in the Hazelwood Mine was
9 spotting of the Hernes Oak bushfire, which was burning
10 several kilometres to the west of the mine. Why is it
11 that, from your perspective, a fire that might spot into
12 the Anglesea Mine is less likely to have that sort of
13 impact compared to what happened at Hazelwood?---The
14 reclaiming of the faces at Anglesea have overburden placed
15 over the coalface itself and it doesn't have the vegetation
16 within that overburden that there was on the batters at
17 Hazelwood. Hazelwood had not been - the batters had not
18 been reclaimed and there was still open coalface along
19 particularly the northern and southern batters,
20 particularly the northern batters, and because it had not
21 been reclaimed, there was significant vegetation that had
22 grown in those coalfaces, of both grass, scrub and trees,
23 which was a source of ignition across the batter and
24 assisted in the spread across the face of the batters.

25 I might get you to expand on that. I'm not sure if we have got
26 a photo in your first statement of the vegetation, but
27 there certainly was evidence at the first Hazelwood inquiry
28 that perhaps a surprising amount of vegetation had been
29 allowed to grow. If you go to page 16 - this is in your
30 earlier statement?---Yes.

31 If you look at the bottom photograph there, we have got a couple

1 of firefighters and we can see just in the foreground some
2 of the vegetation. Is that an example of what you're
3 talking about?---It is to a degree, but that is more to the
4 floor of the mine, but there was vegetation like that,
5 including tree timber, in the face of the batters, that
6 were actually quite hazardous to us and our firefighters
7 when we were working at Hazelwood, but the photos don't
8 clearly show it because a lot of that undergrowth and
9 surface fuel had been burnt.

10 By the time - - -?---By the time the photos were taken.

11 So was it the case that the vegetation that existed and had been
12 allowed to grow on the batters was a perfect place for the
13 embers to be thrown into the mine and then perhaps
14 contribute to the commencement of the mine fire?---It
15 allowed surface fuel of grass and scrub there to easily
16 ignite, particularly on the conditions of that particular
17 day, and that was easy ignition to the mine and then as
18 that fire would grow, then it would spread across the face
19 of the batter.

20 If we go to paragraph 7 of your statement. You make reference
21 to the role that the Anglesea Mine has played historically
22 as a type of fire break, in effect, for the town of
23 Anglesea. I just want to ask you a little bit about that.
24 You say, "The mine may provide an important barrier between
25 any fire to the north of Anglesea and the residential areas
26 of that community." There is a photo over your left
27 shoulder there which shows the town and the mine and then
28 the forest to the north and west?---Yes.

29 And I don't need you to get up, but I think we can all see the
30 geographical context of what you're saying in your
31 statement. You make reference to some phoenix

1 modelling?---Yes.

2 Can you explain to us what you're referring to there?---Phoenix
3 modelling has been developed to look at fire spread and you
4 can have inputs into the model with various elements and it
5 indicates to us how a fire will spread and at what
6 intensity it will do that and I have actually witnessed the
7 models that have been developed by DELWP locally to assist
8 in planning for also their burning program but more so as a
9 means of illustrating the effect on the townships,
10 particularly Anglesea. I recently viewed one of those
11 predictions, that clearly indicates that the mine actually
12 acts as a barrier with that modelling and the indication
13 there, it is in actual fact a fire break and protection to
14 the township of a wildfire that would enter from the
15 north-west and the northern parts.

16 Like any computer simulation, whether it is phoenix modelling or
17 climate change predictions or whatever it happens to be,
18 there are obviously a number of assumptions that go into
19 the modelling process and therefore would you accept that
20 phoenix modelling, whilst it is a very helpful tool, needs
21 to be considered cautiously in terms of what will actually
22 happen on the ground, it won't necessarily replicate what
23 the modelling has demonstrated?---Yes, that is correct, it
24 is very much a tool, an indicator that we can use, but it
25 is dependent on the inputs to the model.

26 Yes, absolutely. You go on and talk about the situation on
27 Ash Wednesday and we had some evidence yesterday of the
28 experience of Ash Wednesday. One thing I want to ask you
29 about is the evidence as a whole, I think, would suggest
30 that when the Ash Wednesday fire, or the Deans Marsh fire,
31 impacted on Anglesea, it did so after the wind change on

1 that day, that is it came in from the south-west, rather
2 than travelling into Anglesea from the north-west, from the
3 direction of the mine. Does this accord with your
4 understanding?---Yes, it is, and that is the typical fire
5 weather behaviour during summer, obviously northerly wind
6 aspects with a south-westerly change, and that's exactly
7 what happened when the fire travelled from Deans Marsh to
8 the outskirts of Lorne and then the wind change took it
9 right along the coast and it impacted on Anglesea.

10 We just need to be a little bit careful about drawing too much
11 by way of conclusion from the Ash Wednesday experience. We
12 can't necessarily assume that that is what would happen if
13 a fire came from the north-west, if in fact it just burnt
14 south-east from the north-west on a high fire danger
15 day?---Yes, you couldn't assume that that would happen.
16 There would be many other factors you'd have to take into
17 consideration. The location of the ignition of the fire,
18 the wind direction and speed and the conditions of the day
19 would have to be looked at to get an approximation or a
20 prediction of where the fire may spread.

21 Having said that, it is a historical fact that even on a day of
22 such extreme fire danger as Ash Wednesday, the small amount
23 of spotting that went into the mine did not lead to any
24 large-scale burning that required, for example, attendance
25 of firefighting authorities?---That's correct. It is my
26 understanding that there was some spotting in the mine and
27 that was quickly dealt with by the mine operators on that
28 particular occasion.

29 Just before leaving this question of the mine operating as a
30 fire break, I wonder if you could look at Attachment E to
31 your statement. It starts at page 52 - that is the numbers

1 in the top right-hand corner?---Yes.

2 It is a document that is entitled Anglesea Local Emergency
3 Planning Factors. Can you tell us what this document
4 is?---There is a history to these documents. The Anglesea
5 fire brigade, in the time I was the operations manager at
6 District 7, were very proactive in developing local
7 township protection plans, the initial plans were the first
8 for Victoria and the brigade at the time were very
9 proactive in developing these plans in protection of their
10 community and they are very similar plans to what is in
11 evidence today but were the early versions. That concept
12 grew within District 7 and within CFA and local township
13 protection plans started to become a norm that we did for
14 high-risk townships. From that, the CFA took the local
15 township protection plans and developed them further into
16 what we see today, with both the local emergency planning
17 factors, the other associated document, the township plan
18 and the community information guide, so it took a different
19 direction, but the Anglesea brigade have maintained their
20 township protection planning and this is a part of that
21 planning, the planning factors that are taken into
22 consideration.

23 As the name of the document suggests, they address risk factors
24 and also geographical features of the area and other
25 matters to assist in the event that there is a fire in the
26 region?---That's correct. The primary purpose is also to
27 assist the local emergency managers or the incident
28 controllers that may be in charge of the fire, to give them
29 an indication of some of the factors that would be affected
30 if Anglesea was threatened by a fire.

31 I just want to ask you about one aspect of it. If you could

1 turn over to the sixth page of this document and the number
2 in the top corner is 57. You'll see a heading Local
3 Emergency Planning Factors and then about halfway down the
4 page there is in bold Bushfire Risk on the left side. Do
5 you see that?---Yes, I do.

6 The document notes, "The coal mine to the north-west of the
7 town", which, of course, is the Anglesea Mine that we're
8 talking about, "provides an extensive forest fuel break
9 that would assist in limiting the speed and spread of a
10 fire running into town from the north-west", and it goes on
11 "significant fuel reduction burning and strategic break
12 works in removing elevated fuel to the west of the township
13 will provide assistance in reducing fire intensity." So
14 that would seem to underline the perspective at a local
15 level of the role that the mine may play in the context of
16 a fire coming from the north-west?---Exactly, yes.

17 Thank you. If we can go back to your statement, please, at p.3,
18 paragraph 8. I'd like to ask you about the Anglesea
19 pre-incident plan, which we have heard a little about
20 yesterday and which you attach to your statement at
21 Attachment C. I might ask you to explain to us briefly
22 what a pre-incident plan is, in general terms, and what the
23 Anglesea one is specifically concerned with?---A
24 pre-incident plan is developed by the brigade in relation
25 to risks that they have within their locality. It is all
26 about being preplanned with a response capability to a fire
27 or a range of emergency incidents that may occur within
28 that jurisdiction, and the pre-incident plan in this case
29 highlights a response by CFA to emergencies within the
30 mine, which would cover several different hazards.

31 If we go over to the plan itself, which is Attachment C at

1 page 29, we see the front page, Alcoa Anglesea PIP, or
2 pre-incident plan, and a photograph, I think, of the power
3 station behind it. So this is a document that is dedicated
4 to pre-incident planning at the Anglesea Mine and power
5 station site?---That's correct.

6 If we turn the page to page 3 of the document, there is a
7 heading Wildfire?---Yes.

8 As you've indicated to us, the document looks at wildfire, coal
9 mine fire, structural fire, so different sorts of fire that
10 might occur either at the site or impacting on the
11 site?---That's correct.

12 Just look at the top right-hand corner. There is a code for the
13 pre-incident plan and then in red letters "keys, no". Can
14 you tell us what that is a difference to?---That would be
15 keys held for the premises, actually to make entry to the
16 premises.

17 So the question that is being answered there is does the CFA
18 have the keys to enable them to get access to the
19 premises?---That's correct.

20 And the answer to that is "no", so you're obviously reliant on
21 some other arrangement to enable the local brigade to get
22 access to the site?---Yes. That would be through the
23 normal security arrangements of the mine.

24 I don't need to look at this in any detail with you, other than
25 to make the point that - and you describe this in your
26 statement - that clearly the plan that you've attached is
27 predicated on there being an operating mine and power
28 station?---That's correct.

29 So the planning is based on an assumption that there will be
30 equipment and personnel available at the mine site in the
31 event that the CFA need to attend an incident

1 there?---That's correct, yes.

2 And as you explain in your statement, a process has been under
3 way, and is in fact ongoing, in which this document is
4 being revised or reconsidered in light of the closure
5 decision?---That's correct, both this document and the
6 emergency management plan.

7 The emergency management plan is the Alcoa document plan?---Yes.
8 This, of course, is a CFA document. Each is being revised in a
9 cooperative way between, in the case of this, between the
10 CFA and Alcoa and in the case of the emergency plan, other
11 agencies, such as WorkSafe, are also involved in that
12 process, we understand?---That's correct. The plan is
13 currently being reviewed and the parties are meeting on
14 3 August to review the new drafts.

15 Are you personally involved in that process?---No, I'm not.
16 Operations officer Wayne Alymer represents me at that
17 forum.

18 Is there also a gentleman Wayne McGill, who has been involved in
19 that process?---That's correct. Geoff McGill is the
20 relieving officer and he's been filling in for Wayne while
21 Wayne has been on annual leave. Wayne is back now and the
22 normal process has resumed.

23 Right. I assume you designated Wayne as being the person who
24 should perform that task?---Wayne is what we call the Surf
25 Coast catchment officer. The mine falls within his area of
26 responsibility. Wayne reports directly to the operations
27 manager, who reports directly to me.

28 Thank you. If you go over, please, to - down to paragraph 11 in
29 your statement, page 3. You make reference to the enhanced
30 response that is in place for attending incidents at the
31 Anglesea Mine?---Yes.

1 And you note that that is recorded in the plan itself. As you
2 say at the top of page 4, "This enhanced response is
3 achieved by the special status of the Anglesea Mine and
4 power station in the Emergency Services Telecommunications
5 Authority computer-aided dispatch system." Can you explain
6 to us how that works?---The CFA brigades respond to
7 emergency events through what we call the CAD system,
8 computer-aided dispatch system. Calls in relation to
9 emergencies are received at that centre and that centre
10 takes all the relevant information and then activates the
11 brigades. In that activation, being a computer-aided
12 response, it has what we call response tables and that
13 accurately indicates to the operator what brigades and what
14 - more so what brigades are to be activated in response to
15 any given emergency at any location within a geographical
16 area. And in this case, if we relate it to the mine, if
17 there was a fire to occur within the mine, the operator
18 would verify the address, it would come up on the screen
19 and give the operator the brigades that were to be
20 responded and automatically once the operator activates
21 that, it sends a pager message to the brigades with the
22 call details and then the brigade respond from there.

23 All right. We'll just unpack that a little, if we could. So if
24 we have a house fire in Anglesea and someone rings 000 to
25 say, "My house is on fire", then a single unit, or perhaps
26 two, would be dispatched by the dispatcher to that
27 location?---Yes, there would be a standard response. It is
28 normally two brigades, a primary brigade and a support
29 brigade.

30 In the case of the Anglesea Mine, because of the scale of the
31 operation, greater risk factors and so on, the computer

1 will tell the dispatcher something else about what should
2 occur, it will tell him or her that the enhanced response
3 that you have described should respond to that
4 incident?---That's correct, there will be a special - the
5 geographical area of the mine will be an assignment rule,
6 as they are called. The assignment rule is a special rule
7 specifically for that location and will bring about the
8 response in line with the pre-incident plan.

9 One question that arises there, you go on in paragraph 12 to
10 explain what that enhanced response is for the Anglesea
11 Mine. You say, "All reported events result in at least a
12 three brigade response, with resources being drawn from
13 Anglesea, Torquay and Bellbrae and additional resources are
14 called upon as required, including additional specialist
15 appliances from Geelong and its surrounding locations,
16 including specialist heavy hazardous material equipment
17 from Corio." I want to ask you we know from the Hazelwood
18 Mine fire experience that there were issues about the
19 availability of equipment such as CAFs and so on. As part
20 of the response to the inquiry report into Hazelwood, has
21 there been any further assessment of resources available in
22 this region to address a fire if it did occur at the
23 Anglesea Mine?---Yes, there has. There are a number of
24 specialist appliances that would respond, as is indicated
25 in my statement, but we've been having further discussions
26 around the requirement of a CAFs unit for this particular
27 area - that is still in planning at this stage - but very
28 much so the nature of the risk associated with the Great
29 Ocean Road and the Otways in general, it would be
30 beneficial for us to have a CAF unit located here, but that
31 is in planning at this stage.

1 Thank you. If we can go on to the fifth question that you were
2 asked, which is in the middle of page 4 of your statement.
3 You were asked specifically about the review of
4 arrangements and we have touched on this already with the
5 pre-incident plan. I want to ask you about the meeting
6 that you refer to in paragraph 15 of your statement. You
7 say, "Whilst the consultation in relation to updating the
8 PIP is ongoing", and you have told us about the meeting on
9 3 August "and we'll be further informed by any
10 recommendations which might be made by the inquiry. This
11 meeting was productive" - that is a meeting that you had in
12 early July, "as identifying issues and some solutions." I
13 want to ask you about that meeting. You have attached the
14 minutes at Attachment G, which is page 71 of your
15 statement. This is a CFA/Alcoa meeting which has been part
16 of this process of assessing the documents that we have
17 been looking at and reviewing them in light of the closure
18 decision?---Correct.

19 You'll see there is a list of actions arising from the meeting.
20 I know you weren't at this meeting yourself, but you had
21 Mr Alymer and Mr McGill there, as well as four people from
22 Alcoa, according to this document. Do you see there is a
23 heading Actions Arising from the Meeting?---Yes.

24 The first of those is, "CFA to send updated copy of CFA
25 pre-incident plan and Latrobe Valley carbon monoxide
26 monitoring procedures to Lisa Mills." We have talked about
27 the pre-incident plan, but it is the carbon monoxide
28 procedures that I'm interested in. What was the context in
29 which that matter was discussed at that meeting, do you
30 know?---Not being at that meeting, I'm unaware of that.

31 We know, though, from the Hazelwood inquiry that carbon monoxide

1 exposure, not just of firefighters but also of mine staff,
2 was an issue and there were a number of recommendations
3 made in the report about reviewing procedures for
4 protecting firefighters from carbon monoxide exposure. Do
5 you know if these procedures were actually forwarded to
6 Alcoa?---I'm not sure if they were forwarded to Ms Mills,
7 but we do have those procedures and I know there are
8 arrangements with Alcoa around monitoring of our personnel
9 once we're in the mine area, particularly if there is an
10 incident occurring, and they have been put into the
11 preplanning arrangements for post-mine closure as well.
12 But in relation to those exact procedures, I'm not sure
13 whether Lisa Mills has actually received those or not. I'm
14 of the understanding they do have the pre-incident plan,
15 but I'm not sure about the - - -

16 All right. Thank you. We did hear evidence, just to fill you
17 in, about proposals to increase the number of monitors that
18 are held at the mine site in the event that - if someone
19 was to attend there?---That's correct. Initial indications
20 were four monitors would be provided to us, but I'm led to
21 believe after the closure of the mine on 31 August, there
22 will be an additional two monitors supplied, bringing it to
23 a total of six.

24 That is consistent with what we heard yesterday. If you can go
25 over to the second page of that document, please. I want
26 to ask about one other thing, heading number 3 - this is
27 page 72. Do you see heading 3, Identify CFA requirements
28 including, and then we have got site access, water and
29 escort. I think site access is self-explanatory, that part
30 of the discussions will be about access to the site and
31 once again, as we know from Hazelwood, there can be a real

1 issue with attending units coming, especially at night-time
2 and being able to find their way around the mine, so
3 obviously they are matters that are the subject of
4 discussion?---Yes, they are.

5 It is the water issue that I want to ask you about. The minutes
6 note, "Limited water supply on site after closure. Further
7 investigation will be carried out by Alcoa regarding a
8 quick fill diesel pump at number 2 ash pond." Is that
9 still something that is being discussed with Alcoa or has
10 that been resolved, as far as you're aware?---We've been
11 having ongoing discussions with Alcoa and I must say they
12 have been very fruitful discussions. Alcoa are very
13 positive in their arrangements with us for post-closure.
14 There are two aspects to this. There's the power station
15 site and there's the coal mine. In touring the mine last
16 Monday, I was able to view firsthand the fire dam which is
17 elevated, which is gravity fed to some hydrants in and
18 around the machinery working sheds of the coal mine. My
19 understanding is they are going to stay in place there.
20 They are three thread couplings, which allows us access to
21 that water supply. That water supply also gravity feeds a
22 stan pipe that our vehicles could replenish their water at
23 that point. We've asked that they actually put in a
24 hydrant at that location because our appliances, although
25 they can be filled from an elevated position, are best
26 filled from a base level and Alcoa are going to put that
27 in, they have confirmed that with us. In relation to the
28 power station site, as that is decommissioned, the hydrant
29 system that is there will be obviously removed or will not
30 be used anymore. There will be a hydrant placed on a
31 100 mm line that will come from the town water supply

1 tankage, which are just above that elevated site. So the
2 arrangements we have in place, with the addition of a
3 diesel pump being put on the ash pond, we believe will be
4 sufficient for us in the event of a fire within the mine,
5 as well as a fire that may threaten the mine, for our
6 appliances to fill at. The other added benefit to that is
7 the 60,000 litre (indistinct) will remain on site and the
8 arrangements have been in place for many years for that
9 type of equipment, not only to support inside the mine
10 itself but they also support outside the mine and have
11 supported us in the past outside the mine, so there's very
12 much a cooperative arrangement between ourselves and Alcoa.
13 We are comfortable at the moment with the arrangements that
14 have been put in place for post-mine closure.

15 Just to pick up on what you have said about the use of that
16 equipment addressing fires outside the mine, which are not
17 necessarily anything to do with the mine, it is the case,
18 is it not, that in the past the CFA has also been able to
19 use the water supply at the mine to deal with fires outside
20 the mine?---That is correct, as a fill point, and of
21 course, for air attack; the Helitacks are able to come in
22 and pick up out of there as well.

23 And that is presumably something that will continue in the
24 future?---That's correct, yes.

25 You mentioned earlier the emergency plan and you deal with that
26 at paragraph 19 of your statement, on page 6?---Yes.

27 So in responding to the question has the CFA brigade been
28 notified of any review to the plan, your answer is, "Yes,
29 the Alcoa Anglesea emergency management plan is currently
30 under review. That current phase of that review is
31 expected to be completed in the week commencing 20 July

1 2015", so that is last week. Are you able to bring us up
2 to speed on what's happening in that regard or is that also
3 a matter to be addressed at the meeting on 3 August?---Yes,
4 I can update you. Chris Rolland, in discussions with him
5 last Monday, I asked the question where we're up to with
6 the emergency plan. He indicated to me it would be ready
7 in draft form by the end of the month, which is obviously
8 now, and it would be presented at the meeting on 3 August.

9 Thanks very much, Mr Barry. They are all the questions that I
10 have for Mr Barry, unless the members of the board have any
11 questions.

12 CHAIRMAN: No.

13 MR ROZEN: Mr Taylor, do you have any?

14 MR TAYLOR: No questions from me.

15 CHAIRMAN: Thank you, Mr Barry. You are excused.

16 <(THE WITNESS WITHDREW)

17 (Witness excused.)

18 MR ROZEN: The next witness is Mr Mackenzie, whose statement is
19 behind tab 9 in the hearing book.

20 <RODERICK JAMES MACKENZIE, affirmed and examined:

21 MR ROZEN: Mr Mackenzie, can you please state your full name and
22 your work address?---Roderick James Mackenzie. I work at
23 61 Separation Street, North Geelong.

24 Your current position is senior instructor wildfire leadership
25 development with the CFA?---Correct.

26 And you're also a volunteer with the local Anglesea
27 brigade?---That's correct.

28 Holding the rank of lieutenant, as I understand?---No, that is a
29 past rank. I'm one of the deputy group officers for the
30 coastal group.

31 Mr Mackenzie, you have made a statement for this inquiry which

1 attaches a number of documents, some of which I'll ask you
2 about. Are there any changes that you wish to make to the
3 statement?---Yes, please, Mr Rozen.

4 Perhaps if you take us through those in sequence?---In
5 paragraph 3, in the sentence, "I was responsible for the
6 management of the East Otways region." I'd just like to
7 add "from 1990 to 1995".

8 So we're in the fifth line and that sentence is, "I was
9 responsible for the management of the East Otway region"
10 and you would add in after that "from" - - -?---"1990 to
11 1995". And in paragraph 14 on page 4.

12 So the top of page 4?---In the sentence that starts with,
13 "Furthermore, vegetation is slow to recover in the areas
14 that are reclaimed and the vegetation that does grow", I
15 would like to remove "does not" and replace it with "will
16 eventually provide a significant fuel load".

17 So if we delete the words "does not" and insert the words "will
18 eventually"?---Yes. And continuing on, I'd like to take
19 out "accordingly" and change it to "there are some areas of
20 vegetation within the Anglesea Mine that may cause a fire
21 to develop and spread" instead of "that are likely".

22 If we just go over that. So in that sentence we delete the word
23 "accordingly" so that the sentence starts with the word
24 "there"?---Yes.

25 And instead of the words "not large", you would insert
26 "some"?---"Some areas of vegetation", yes.

27 "There are some areas of vegetation within the Anglesea Mine
28 that" and then delete the words "are likely to" and put in
29 the word "may"?---Correct.

30 So the sentence now reads, "There are some areas of vegetation
31 within the Anglesea Mine that may cause a fire to develop

1 and spread"?---Correct. And lastly on paragraph 19, in the
2 sentence, "The risk presented to the community of Anglesea,
3 by reason of its location and the presence of the heath,
4 remain significant", take out "both" and "the Anglesea
5 Mine".

6 So if we delete the word "both" and if we delete the words "and
7 the Anglesea Mine"?---Yes.

8 Then the last part of that sentence will read, "The risk
9 presented to the community of Anglesea, by reason of its
10 location and the presence of the heath, remains
11 significant"?---Correct.

12 With those changes, are the contents of your statement true and
13 correct?---Yes.

14 I tender the statement.

15 #EXHIBIT 18 - Witness statement of Mr Mackenzie.

16 Mr Mackenzie, we need to talk a little bit about your background
17 because it is obviously important. If I can summarise it.
18 You have had a long-term involvement in issues to do with
19 fire in this region, dating back to 1983?---Yes. I started
20 in the summer fire crew with the Forest Commission in the
21 Geelong district, which included parts of here.

22 The Forest Commission these days, is that DELWP?---It eventually
23 ended up to DELWP, yes.

24 Via a lot of name changes?---Yes, it went through a few of
25 those.

26 It is the government entity that is responsible for the
27 management of the heath, importantly for our
28 purposes?---Yes.

29 So you started with the Forest Commission and you were involved
30 in fire-related activities there?---That's correct. The
31 whole career really was part of - I was the forest officer

1 and forest management was my role.

2 That was in this region?---All around the state, actually. I
3 came down here in 1990, but this being part of our
4 district, we're involved with fire management through the
5 mid to late '80s.

6 After that, you spent some time with Ecologic Fire Management;
7 is that right?---Yes. I resigned from DELWP and started my
8 own business, which provided fire management and training
9 for forest industries, CFA, DELWP and also municipalities
10 as well.

11 During that time, as I understand your statement, you were
12 partly involved in responding to the Linton bushfire
13 tragedy, where five volunteer firefighters died?---Yes.
14 Previously the training - I was engaged by CFA with some
15 training prior to Linton and then immediately after, that
16 is probably the onset where the instructors came on board,
17 but was involved heavily with the training of CFA brigades
18 after Linton.

19 And since 2001, you have had a career role with the CFA as an
20 employee?---Correct.

21 And you have held a number of positions which you have set out
22 in your Attachment A which I don't think we need to go to
23 in any detail but at the same time you have also been
24 performing a volunteer role with the Anglesea
25 Brigade?---That is correct, yes.

26 How far back does that go, when did you start volunteering with
27 Anglesea?---1991, I think it was one of those roles where I
28 was working with the forestry so wasn't heavily involved
29 with the brigade because we worked closely anyway, and it
30 was probably then I became a lieutenant because I have held
31 different officer positions within the brigade and the last

1 few years has been a deputy group officer for the coastal
2 group.

3 You also published a number of booklets and videos and other
4 sources of training for fire fighters which you list in
5 your CV?---Yes, I have been involved in the leadership
6 development and decision-making in sort of a time critical
7 environment, so a lot of reviewing about how we've done
8 work practices, bushfire management, mainly work and safety
9 stuff.

10 For all that work you have been recognised and received a number
11 of awards which you set out in your CV and the most recent
12 of which I see is the Australian Fire Service model you got
13 in this year Honour's List, is that right?---Yes.

14 Congratulations. With all of that background in mind if we can
15 go back to your statement, and as with the previous
16 witness, Mr Barry, you were asked to answer a number of
17 questions in a letter provided to the CFA from the
18 Inquiry---Yes, that's right.

19 Specifically the letter asked the CFA to address some local
20 questions about planning and the fire history in this area
21 and they are the matters you address in your
22 statement?---That is correct, yes.

23 The first question I think it pretty self-explanatory. If we go
24 over to page 2 of your statement you were asked to describe
25 your role at the Anglesea CFA Brigade, I don't think I need
26 to go into that. But I do want to ask you about the second
27 question on page 3: "What is your experience of attending
28 fires at the Anglesea Mine?", and at paragraph 12 you say
29 to your knowledge, and that's knowledge drawn over what, 30
30 years experience in this area?---I have been here 25 years.

31 25 years: "There has never been a mine fire at the Anglesea

1 Mine"?---I know there has been like small fires but nothing
2 we have responded to.

3 And nothing that's spread to the coal I think is the evidence
4 we've heard. And you go on: "The fire events that have
5 occurred inside the Anglesea Mine have been of a limited
6 nature, relate to events such as the electrical fault that
7 occurred 26 February 2012 and the equipment fire that
8 occurred on 7 July 2013", and we heard some evidence about
9 those matters from the WorkSafe manager whose staff
10 responded to those yesterday: "Otherwise the only other
11 fire event which had the potential to burn into the
12 Anglesea Mine was an escape planned burn which occurred on
13 28 March 2009. This planned burn was quickly brought under
14 control before it had any impact on the Anglesea Mine."
15 Now, there is a map behind you of the mine and the town and
16 the heath, and I wonder if you're able to assist us,
17 exhibit 3A from memory?---It shows a lot of the burn, the
18 burn history and prescribed fire, when you look at the mine
19 and the risk it's better to put it into a larger context.
20 So I have brought this.

21 Thank you very much.

22 CHAIRMAN: If you work how it suits you. We have to have the
23 microphone so you may need more than two hands, I
24 think?---It's probably the relationship with the fire
25 around Anglesea that's important and it applies to some of
26 the work, so we're not just looking at the mine in
27 isolation with all the other work that's been done. So the
28 power station and the mine came in through sort of this
29 back door here, it's burned around and then came in to the
30 back right up to basically the gate of the power station.
31 Yes?---In 2009. So we had crews working - of course the big

1 issue apart from the fire was the peat that occurred up
2 through the gully and systems the valley up through there,
3 so it was machine operations and trying to keep out of the
4 peat, it up did come up right to the very back gate of the
5 power station and we just had the response, had normal
6 units in there but also had a 60,000 litre (indistinct)
7 basically ran up to the gate, stopped and moved on.

8 Perhaps I might ask you to do perhaps with a pen is if you're
9 able to mark the closest point to the mine at which that
10 burn got to. Whilst you're looking at that we can see
11 there are a number of different shaded areas. Am I right
12 in assuming they are different areas of planned burns that
13 have occurred in recent years?---That's correct, the light
14 coloured ones indicate 2008, the very light 2009, and then
15 we go back from there into the darkest ones which are the
16 2014 and 2015 burns.

17 It's not a photo, is it, what is that?---It's an aerial
18 photograph overlaid with different layers showing the
19 burns and the proposed burns for this coming year which
20 will fill in there and through there. (The witness
21 demonstrated.) And then obviously the next cycle of burned
22 planning will go on from that point.

23 This is a document that uses part of the local burn planning
24 process?---This is in conjunction with DELWP, they produce
25 the plan, we look at how they are going to roll, we can
26 make suggestions where we think needs to put some fire into
27 the ground.

28 My eyesight is not quite good enough to read the title at the
29 bottom, "Anglesea"?---"Fuel Reduction History, 2006 to
30 2015."

31 So it's a very recent photo?---Yes.

1 Are you able to leave that with us as an exhibit?---Yes.

2 I would ask that be marked please.

3 #EXHIBIT 19 - Aerial paragraph: "Fuel Reduction History, 2006 to
4 2015."

5 You mention in paragraph 14 of your statement that consistent
6 with other evidence we have heard, in your opinion the mine
7 can operate as a type of fire break to the town. Were you
8 in the inquiry room moments ago when Mr Barry was giving
9 his evidence about that?---Yes, correct.

10 Do you agree generally with what he had to say about that
11 topic?---Yes, absolutely.

12 Is there anything you want to add to that from your own local
13 experience?---No, I think Mr Barry covered that ideally,
14 yes.

15 And I take it you have been quite deliberate with the language
16 you use in paragraph 15, you say: "It appears the effect
17 of the Anglesea Mine is to slow an approaching fire
18 front"?---Yes.

19 You're not saying categorically a fire coming from north would
20 be stopped by the mine?---The fire spread but the ember
21 attack would be probably the big issue there, of course, if
22 the fire spread was stopped the embers would continue.

23 Towards the middle parts of your statement towards the end you
24 talk about local issues which I want to ask you about.
25 Firstly, do you have any role in relation to reviewing the
26 pre-incident plan Mr Barry was talking about?---Eventually
27 from a group perspective we will be involved after the
28 Anglesea Brigade and we will have a look from a group
29 perspective.

30 I might just ask you to explain to us the distinction you're
31 make there, the group is a collection of brigades?---That's

1 correct, and Wayne Alymer is our operations officer, our
2 cashment officer responsible for our group of brigades and
3 the group oversees like it does at a management level if
4 you like -

5 How far does the group extend beyond Anglesea in geographical
6 terms?---Lorne, coastal strip, Torquay, Bellbrae, Aireys
7 Inlet, Anglesea, Lorne.

8 In land?---No, just comes into the next group, the Winchelsea
9 Group link up the back there, mainly the coastal strip.

10 You talk about some traffic management issues which and I want
11 to ask you about briefly, paragraph 22 of your
12 statement?---Yes.

13 We see from all of the planning documents which you have
14 attached and which Mr Barry has attached, that access
15 issues are uppermost in the minds of planners responding to
16 fire in this area, that is the idea the Ocean Road could be
17 cut, and it's one of the major difficulties you face in
18 planning and responding to significant fire events in this
19 area?---That's correct, those that have been down the coast
20 in summer know what it's like.

21 We have all sat in traffic on the Ocean Road?---Yes.

22 You made reference to the Coalmine Road which of course is the
23 road that takes you into the mine from the Ocean
24 Road?---Yes.

25 And you attach an aerial image to your statement which you use
26 to explain this issue, I wonder if we could go to that
27 attachment J which is the very last page in your statement
28 but on my version the code's been cut off, 38 apparently,
29 if we just focus in a bit closer on the town?---Yes.

30 Can you just show us Coalmine Road, please?---Coal mine road is
31 coming through here.

1 So it actually starts over near the coast, does it not?---It
2 comes in up through here and runs through.

3 And ends up going down to the south of the mine area?---It come
4 down to the south of the mine area.

5 You make reference to a CFA satellite station in Harvey
6 Street?---That's correct, that's just down off here.

7 What is the purpose of the satellite station?---In summer
8 physically we can't get across the bridge, we won't be able
9 to respond across the bridge in normal traffic in summer,
10 so the satellite station allow access to the other side of
11 town. So the only access we have into anything up the back
12 is obviously up this road here which allows us to drop into
13 wherever, and the other access which if we can get out
14 where our work centre is we can actually come out from the
15 back that way as well. In the main station though, it's
16 very, very difficult just through traffic so on very, very
17 bad days we may have to reposition vehicles.

18 For our purposes talking about the mine, particularly the
19 western side of the mine where we know there that area of
20 uncovered coal will remain would you get access there from
21 the substation?---Yes, that's the critical thing, that gets
22 us to all that west side of town.

23 Could you show us how you would get access to - - -?---We need
24 to get through Harvey Street which brings us to the mine,
25 and we can add either access trucks which are traffickable
26 down through here or we come through those, a bit rough but
27 we would come around and respond that way.

28 Thank you, if you could resume your seat now. But there is a
29 problem with the Harvey Street location as you explain in
30 paragraph 24, it's actually owned by Barwon Water, is that
31 right?---That's right, we're currently on a lease agreement

1 with Barwon Water on a site that is going to be sold,
2 currently looking other sites around town for that
3 location, for that station.

4 What's the likely timetable with that, firstly when is the site
5 being sold, do you know?---No, there is no real timeframe
6 for that at the moment but we have been given every
7 indication that's going to occur and I know Mr Barry and
8 the region are looking at alternate sites.

9 And is this likely to impact on responding in the forthcoming
10 fire season?---No.

11 It's not?---No.

12 So it's a sort of medium term issue?---Yes.

13 Thank you. They are the questions I have for Mr Mackenzie,
14 unless members of the board have questions?

15 <CROSS-EXAMINED BY MR TAYLOR:

16 MR TAYLOR: I have one matter I would like to clarify if I may.
17 You gave some evidence about the mine potentially acting as
18 a fire break and you spoke about ember attack to the
19 town?---Yes.

20 I just wanted to clarify you're speaking there about while the
21 mine itself may have the effect given its current
22 configuration, the presence of overburden what we expect it
23 to look like by the time the overburden project's
24 completed, it could have and may well have the capacity to
25 stop a front but it can't necessarily stop long range ember
26 attack on Anglesea through that comparatively compared to
27 what we dealt with at Hazelwood, it wouldn't have the same
28 effect?---That's correct, the front would hit the exposed -
29 and the embers on the edge of town would be the impact but
30 the fire front would be stopped at the that mineral earth.

31 Thank you, Mr Mackenzie, you're excused.

1 MR ROZEN: Your Honour, I note the time, we're making fairly
2 good progress this morning, it may be appropriate to take
3 the morning break.

4 CHAIRMAN: Yes, resume perhaps at 5 past 11.

5 <(THE WITNESS WITHDREW)

6 (Short adjournment.)

7 <CRAIG WILLIAM LAPSLEY, affirmed and examined:

8 MR ROZEN: Welcome back to the Hazelwood Mine fire

9 Inquiry?---Good morning.

10 Did you have three stints last time?---Yes.

11 Just one this time, I guarantee that?---Thank you.

12 At least in relation to Anglesea anyway. Mr Lapsley, you're the

13 Emergency Management Commissioner?---That's correct.

14 Can you please summarise for us your role as Emergency

15 Management Commissioner?---It's broad in the sense it has

16 coordination of relief recovery response and the planning

17 for emergencies for what they call class 1 and class 2

18 emergencies which is those emergencies that are the natural

19 hazards, the earthquake, the bushfire, tsunami, the flood,

20 the storm, but it extends to human health emergencies,

21 animal health emergencies and infrastructure but obviously

22 in conjunction with the chief officer and those agencies

23 have responsibility for infrastructure, control

24 arrangements, have the necessary means to appoint people to

25 ensure the controller runs from the state. The new part of

26 this legislation we operate under now is responsibility for

27 the consequent emergencies and has the need to develop

28 standards procedures and oversight reform and impact

29 assessment of emergencies, so it's fairly significant.

30 For the assistance of the inquiry you have prepared a witness

31 statement dated 20 July 2015?---Correct.

1 Which is behind tab 10 in the hearing book, do you have a copy
2 of that open in front of you?---I do.

3 Are there any changes you want to make to your
4 statement?---There is one point at paragraph 19.

5 On page 4?---Page 4 and it states in there that: "There was a
6 task force meeting held at the mine on 28 May 2015 at the
7 mine site", it wasn't actually at the mine site, it was at
8 a Surf Coast Shire office, so, "on 28 May 2015 at the mine
9 site", should read, "28 May 2015 at the Surf Coast Shire
10 office."

11 That's the third sentence in paragraph 19?---Yes, that's the
12 only correction.

13 Otherwise are the contents of the statement true and
14 correct?---Yes.

15 #EXHIBIT 20 - Statement of Craig Lapsley dated 20 July 2015.

16 Mr Lapsley, before I ask you about the contents of your
17 statement I think you were in the hearing room a little
18 while ago when Mr Barry was being asked about issues to do
19 with carbon monoxide?---I was actually out of the room but
20 I heard the first part of it.

21 Specifically what I was asking Mr Barry about was whether he
22 could assist us in explaining whether or describing whether
23 some of the learnings from the Hazelwood Mine fire inquiry
24 and the report there have been passed on to Anglesea
25 specifically in the area of the monitoring of carbon
26 monoxide of fire fighters and others who are attending a
27 coal mine fire, and I understand just from the brief
28 conversation I had with you there have been some agreements
29 in that regard?---There has, Mr Rozen, I think there are
30 two key points here, one of the key learnings out of
31 Hazelwood was the impact of PM2.5, so small particles, and

1 we have now developed and signed on 23 January 2015 between
2 the chief executive of the EPA, the chief health officer and
3 myself a community smoke air quality and health protocol
4 which deals with the small particles which is an excellent
5 document, and the second of that is a standard for managing
6 significant carbon monoxide emissions, so it's not just
7 about coal, it's about carbon monoxide and fire and fire
8 environments, and that obviously covers the fire risk and
9 that's the one by the chief health officer and I, and that
10 will be signed at the end of July so it's actually sitting
11 on my desk as we speak today for signature once I return
12 after this. That has two key parts, one is the impact on
13 community and the second one would be the impact on carbon
14 monoxide on fire fighter health, and that came out of the
15 Hazelwood inquiry about how confused, unclear and how
16 difficult it was in some cases to get consistency of
17 application of standard but also messaging to the community
18 and fire fighters. So they are significant documents and
19 both have been peer reviewed to the point we have a
20 comprehensive well thought through series of procedures to
21 apply.

22 Subject to the views of the board I didn't think we needed to
23 tender those documents here because they are really of
24 peripheral interest to our current inquiry but the
25 monitoring process and recommendations of the first inquiry
26 will pick up on those. Mr Lapsley going back to your
27 statement and your personal experience, I'm looking
28 paragraph 4 on the second page of your statement, you there
29 set out your in excess of 30 years involvement in the
30 emergency management sector, and I don't need to read
31 through each of those but I do want to just focus in on the

1 fifth point you make there, 4.5, about your previous
2 experience in relation to fires in open cut coal mines and
3 I think specifically you had a role in the 2006 Hazelwood
4 fire and I might ask you to describe that to us
5 briefly?---At the point of time I was deputy chief officer
6 with the CFA and have been a deputy chief officer since
7 2001, so five years as deputy chief. A significant fire in
8 the Hazelwood mine in October so it wasn't a summer period,
9 it was actually a dry period but moving in the temperatures
10 of in the high 20s, low 30s, so we have the extreme days as
11 we had seen in the previous fire of February 2009. And I
12 was asked by the chief officer to go down late in the
13 afternoon of a fire that was obviously burning
14 significantly and had taken a significant working end of
15 the mine so we had lost a significant piece of
16 infrastructure being one of the dredges. The key issue for
17 this was if that fire had have continued we would have
18 turned the generators off, that wasn't an ideal position,
19 and they appeared to be getting the upper hand of the fire.
20 So I spent an extra 24, 36 hours in the valley to ensure
21 that, one, we had the connection of the (indistinct) and
22 utilised the central Gippsland essential infrastructure
23 group which was critical to bring them together. There
24 were significant learnings about bringing the capability of
25 the valley together as one and that was one of the first
26 times that had been done to that extent. The second one
27 was to make sure we didn't have any extension of fire into
28 the bunker of coal or into the generator itself so we kept
29 power running out of hazard and were successful in that,
30 and also to ensure the health and safety - and that was the
31 first time we really experienced difficulties with fire

1 fighter health in regards to that because of the duration
2 of it, all previously they had been a lot shorter, the
3 fires, and I think also the emphasis of previous fires was
4 not quite the same about the health and safety of the
5 people. So we had seen an increase obviously as
6 evolution's come along in those 2000s of where Occupational
7 Health and Safety protocols were and how they were being
8 applied and again, we learned more of the size of the fire
9 of what happened on 9 February. So yes, had been involved,
10 I had never worked in Gippsland, had never been appointed
11 by the
12 CFA to Latrobe Valley but as the deputy chief we had to
13 take responsibility, so all those major hazards were of
14 significance to us, yes.

15 Your personal background that you bring to the role that you
16 performed in both the Latrobe Valley Task Force and the
17 Surf Coast Task Force, that's what I want to ask you about
18 now, the full name of the Latrobe Valley task force, can
19 you remind us?---Latrobe Valley Coal Emergency Management
20 Task Force

21 And it comes out of the first Hazelwood Mine fire
22 inquiry?---Yes, it was a commitment of the then Government
23 to ensure that we were - had a task force operating to
24 bring the collaboration together and in particular to be
25 fire ready in preparedness for the then 2014 fire season or
26 summer, and extend it to 2015/2016 so both task forces are
27 still active today but our final date will be December 2015
28 which is only months away and you may talk about what that
29 means later.

30 I have been asked to ask you to slow down a little bit if you
31 could bearing in mind people are trying to transcribe what

1 we're saying. So the relationship between the two task
2 forces, can you help us with that, the Surf Coast Task
3 Force and the Latrobe Valley one?---There isn't a direct
4 link except I chair both, Peter Schmidt who is the director,
5 ex CFA, came across to us as a director of the task force,
6 he is the executive officer for both. The membership has
7 some consistency for both Governments but the main thing is
8 we're trying to get a local connection to industry so
9 obviously Alcoa don't participate in the Latrobe Valley and
10 obviously the three mines in Latrobe Valley don't
11 participate in the Anglesea one, but as far as Government
12 departments in the main we see the same departments and in
13 the main I say the same representatives, so some of those
14 that presented evidence yesterday as being members of both
15 task forces.

16 Attachment 2 of your statement, page 10, we have there got the
17 terms of reference of the coal mine emergency management
18 task force?---Yes.

19 Which makes reference to the four Victorian brown coal mines, so
20 that's three in the valley plus the Anglesea Mine?---Yes.

21 We then have the membership of the Latrobe Valley task force and
22 over the on the second page as pointed out we have slightly
23 different membership for the Surf Coast Task Force?---Yes.

24 And - - -?---I should say, and that document has been amended
25 yet again because the task force at Surf Coast we're very
26 definite about, DELWP, that has been included and wasn't
27 reflective of the dating of that document but I think it is
28 in one of the witness statements - my witness statement,
29 goes back to show the membership. Obviously that's a dated
30 document of September and the task force itself when we
31 formed it on the Surf Coast, then we're very keen to ensure

1 and we actioned it to have DELWP as part of it.
2 I think in fairness I should take you to attachment 5 at page
3 16?---Yes.
4 I think I'm right, aren't I, this was the initial meeting of the
5 Surf Coast Task Force in December last year?---That would
6 be right.
7 We see there the membership, and just in relation to DELWP there
8 is a reference there to someone from DEPI, did DEPI become
9 DELWP?---Yes.
10 So the Surf Coast Task Force is specifically concerned with the
11 Anglesea Mine, is that right?---That's correct, yes, yes.
12 And I think as you have already explained it as you set out in
13 your witness statement is concerned to look at what was
14 learned as a result of the Hazelwood experience and the
15 Latrobe Valley task force and to the extent relevant to
16 apply it to the situation at Anglesea?---Correct.
17 When the task force was set up of course the Surf Coast Task
18 Force set up the Anglesea Mine was an operating mine and
19 was likely at that stage to operate into the foreseeable
20 future, and of course that's changed significantly with the
21 announcement this May; how has that impacted on the
22 operation of the task force?---As the chair I took a very
23 clear position and spoke to what is DEDJTR now as far as
24 human resources to say they needed to advise us of what
25 that meant, and we wanted to ensure we were continuing on
26 the road, that it was on operating mine and until we were
27 advised what it would mean - and we're still working
28 through that now exactly, you would have heard that, there
29 are things in phase 1 and phase 2 of the closure plan that
30 we are still seeking information from. One thing I did
31 want to make though as the chair is we did not get in the

1 front of what was a very important workforce issue. So the
2 HR issues of those employed in the mine would be number
3 one, and two was about Alcoa and Government were talking to
4 the community about their concerns. So we through my
5 leadership were saying we would obviously remain active but
6 we did not want to be the vehicle to carry what were the HR
7 issues, issues of employment and also what were the issues
8 regarding Alcoa's future and what it meant to the
9 community. And I give credit to all of those, they have
10 all been worked through and obviously in the collective way
11 and Alcoa have done exceptionally well to stay connected to
12 the community and work through those issues of what it
13 means to close a mine in a community sense. The issue now
14 is what does it actually mean and we have heard from the
15 evidence and obviously with Alcoa and others of what that
16 actually means over the next number of months and we
17 believe we're in a very strong position still, Alcoa has
18 remained fully engaged and other obviously the evidence you
19 have heard from CFA is we have some work to done about
20 modificational plans, resources and understanding what it
21 means by long-term and short-term not to have an operating
22 mine at Anglesea.

23 I think it's an accurate summary of the evidence you gave at the
24 first Hazelwood inquiry, that you had some concerns about
25 level of engagement by some of the mine operators, no need
26 to name anyone, but in terms of the interface between
27 emergency management and the mine operators that was a
28 sentence you raised in the evidence you gave?---Yes, yes.

29 I take it from what you said about Alcoa the experience here has
30 been somewhat different?---Yes, it has been a different
31 experience, a very positive experience and I think it shows

1 the commitment of what Alcoa's done as a good corporate
2 citizen within the community, and it's also reflective of
3 Anglesea as a community too in many aspects, and the Surf
4 Coast Shire should also be acknowledged in the way they
5 participate in what is community participation. So it has
6 been a little easier to work in the Anglesea surf coast
7 environment because of the willing partners that have been
8 there for decades. It's not - my observation of Alcoa and
9 surf coast shire as we know them today they have been
10 heavily engaged with the Anglesea community and continue to
11 do so and it is also a reflection of what the Anglesea
12 community is because they are quite active in their
13 approach to be consulted and be heard.

14 Thank you. Paragraph 21 of your statement after referring to
15 the minutes of the various meetings, and I don't want to
16 take you to the minutes in any detail but it's clear from
17 reading them quite early on that in the Surf Task Force's
18 existence there was a clear recognition of the differences
19 between the Anglesea Mine and the Latrobe Valley mines in
20 several respect and you summarise those differences at
21 paragraph 21 of your statement which is on page 4 where you
22 say: "The Anglesea mine poses considerably less risk than
23 the mines in Latrobe Valley because", and then you set out
24 five matters which are self-explanatory and they certainly
25 are reflected in the other evidence the inquiry has heard.
26 I want to ask you about the third of those: "The coal it
27 contains is considered less prone to fire than in the
28 Latrobe Valley mines"; is that an opinion you're expressing
29 or is that something you have been told on the basis of
30 research, how do you make that observation?---Two parts,
31 one is the history of fire is not prevalent and I think

1 that's in - I won't be able to quote which statements but I
2 think it might be listed in a number of statements, there
3 has been a small number of fires of any significance in
4 this mine.

5 In relation to that, and that stands in stark contrast to the
6 experience for example in Hazelwood?---Absolutely. It's
7 also the way the mine operates, so there's more moving
8 parts in the valley with conveyor belts and all sorts of
9 things in the way this mine operates. So the mining
10 operation is a different mining operation in the mechanical
11 works but that's not to say you still won't have a fire
12 from a vehicle with a - whatever, so it's not as big in its
13 mining production so I suppose it has less opportunity for
14 mechanical intervention. It's also interesting - and I
15 didn't hear the evidence in totality yesterday but the
16 composition of the coal itself. It's not as porous, it
17 doesn't seem to have - and you will go through technical
18 evidence on this as well - it's not something that is prone
19 to spontaneous combustion of fire and that's the make up of
20 the coal. Flammability, you would think the fact we
21 haven't had as many fires in this open environment of coal
22 would say that the sulphur content is having some impact on
23 the way it's available for the flammability side. So I
24 suppose without going into the absolute detail of what we
25 mean by spontaneous combustion it hasn't had history of
26 spontaneous combustion, it is a different composite of coal
27 and I think one of those that shows that is when it's
28 heaped up, even when it's heaped and accessible to get more
29 oxygen to it it's not self-generating in itself in
30 generating heat and therefore spontaneous fire. The other
31 one, it's got to be a factor but the way in which the mine

1 works, it's got reasonably good eye of sight across it, so
2 if you're working in the mine if something was to happen I
3 think the detection of it would be a lot earlier, it's not
4 a vast mine but it can be sighted by those that are working
5 in and around it. So I think that has to have a factor
6 too, the surveillance, the individual approach of the
7 operators and the people that work in it, if it did have a
8 fire or puff of smoke it is dealt with very quickly.

9 Once again that stands in contrast to the position in the valley
10 where just the scale of the operation is so much
11 bigger?---Yes, so much bigger.

12 So is it fair to say in relation to 21.3 that certainly the
13 chemical make up of the coal is one aspect of it but the
14 lack of fire history over what is an extensive period of
15 operation is if anything more of a persuasive factor in
16 assessing the risk?---It's also interesting, I haven't got
17 the facts and figures on me but we can find them for you.
18 Being coastal, so the coastal weather influence is probably
19 something that comes into it. The valley sits in a very
20 dry part of Victoria and we set out in heat maps
21 (indistinct) October/November, that they will dry out a lot
22 quicker than other parts of Gippsland. They are sitting on
23 the coast so that coastal influence will have some impact
24 in a weather sense as well. So relevant humidity and what
25 those days mean. That's not to say we're not going to have
26 an extreme code red type day, we will have those days, and
27 when we have those days where the environment is extremely
28 dry and the temperatures are excessive and the environment
29 will be available in every way and aspect to burn, and I
30 think it needs to be made sure we're not playing it down
31 that you can't have a major fire that has catastrophic

1 impacts on communities out of Anglesea, you can. However,
2 I think the position of the types of weather conditions we
3 have particularly relative humidity is somewhat different
4 than the valley.

5 That sort of leads us into the observation you make at paragraph
6 26, this is in response to a question: "What discussions
7 have you and/or the task force had with Alcoa regarding
8 fire mitigation at the mine after closure?", we see from
9 the task force minutes that is a matter that has been
10 discussed recently. And at paragraph 26 you say: "Closure
11 of the mine will significantly reduce risk profile", and
12 just to indicate to you the evidence we have already heard,
13 we have heard probably the principal action that's been
14 taken by Alcoa is its covering of the horizontal coal
15 surfaces with overburden to approximately a metre, or
16 approximately a metre, is that one of the considerations
17 you take into account in assessing the changing of the risk
18 profile?--Most certainly, if you think about causation of
19 fire, where is the ignition source? Lightning, vehicles,
20 human hand? So if we're taking out of the mine the fact
21 we're not mining it, so we haven't got machinery in there
22 that can actually start the fire that's taken one away.
23 But what else do we have to do? Covering the coal is
24 obviously the next step and we're learning now the extent
25 of the program and the extent of the program by 31 August
26 of this year of what it means by covering coal. In the
27 task force I was very careful that we were being advised by
28 what was were the licence requirements and through energy
29 and resources about how that would be played out as far as
30 the implication of the closing plan, and as we have learned
31 it's a significant piece of work about the covering of a

1 large, large percentage of the horizontal coal and there
2 will be some works that will need to be done in stage 2 of
3 the rehabilitation plan. That still will need further
4 works and we will be advised about that as we go. As I
5 have seen it the works program and the change of
6 environment of what would be ignition sources is a
7 significant step to reduce the risk of fire.

8 Correct me if I'm wrong but your office hasn't conducted its own
9 formal risk assessment of the changed risk level?---No, not
10 yet.

11 Is that something that is that proposed?---That will be
12 discussed with the task force about how we use the risk
13 assessments that have been done already and ensure that
14 everyone's got ownership and understanding and what are the
15 other risks that need to be considered, so that is another
16 piece of work the task force will do and will use the works
17 that have already been done and some of will be evidence in
18 this room here.

19 You may reference this, and my apologies if you do, but is there
20 is a planned meeting of the task force before the date of
21 closure?---I don't think so, I would have to look at my
22 diary, I don't think it's in for August, I think the first
23 one, people may know their diaries better than I, it's not
24 on my radar for the next two weeks, I know that, but we
25 will be soon after that.

26 In any event we know from the evidence that we have heard that
27 many of the participants in the task force are having their
28 own separate meetings including one on Monday between Alcoa
29 the CFA and WorkSafe and there are other meetings going on,
30 so I take it the outcomes of those meetings will feed into
31 the work of the task force?---I think that's an important

1 point, the task force is a task force. There are still
2 legislative requirements of agencies, there are still
3 planning requirements of agencies to ensure they are
4 carried out. So the task force is a collaborative process
5 to get priority, direction and hopefully discussion into
6 resolution of blockers and barriers and we have been able
7 to use the task force reasonably well to get those issues,
8 so we adopt a single approach and using the statutory
9 requirements of agencies and we need to respect and
10 understand those and also the planning frame works that
11 need to be taken into consideration.

12 I take you to be saying we shouldn't assume the existence of the
13 task force somehow deletes that existing statutory
14 framework and role of the regulators?---That's exactly what
15 we don't want because we need them to be accountable for
16 what they do and we have to be, I suppose, the integrator
17 of the task force to ensure those these issue are dealt
18 with, heard, understood and where there are problems we can
19 facilitate a common direction, yes.

20 Thank you. They are the questions I have for Mr Lapsley. Do
21 the board have any questions for him?

22 MR TAYLOR: No, questions, thank you.

23 CHAIRMAN: Thank you Mr Lapsley, you're excused.

24 <(THE WITNESS WITHDREW)

25 MR ROZEN: The next witness is Cameron Farrington from Mining
26 One Consultants and Mr Farrington's report is Attachment B
27 to the statement of Mr Sharp behind tab 4.

28 <CAMERON DAVID FARRINGTON, affirmed and examined:

29 MR ROZEN: Could you for the purposes of the transcript state
30 your full name and your work address, please?---Yes,
31 Cameron David Farrington, Mining One Consultants, 50 Market

1 Street, Melbourne.

2 Your report is in the material, I will just read out a code
3 number to help the operator, Alcoa.0001.002.0231 and you're
4 a mining engineer, Mr Farrington?---That's correct.

5 And your formal qualifications, please?---Mining engineer,
6 qualification received at Ballarat University,
7 approximately 25 years experience in the mining industry,
8 coal mining experience is approximating 11 years starting
9 in 2000.

10 Tell us a little bit about that coal mining experience, has that
11 been both in Victoria and also interstate?---Predominantly
12 interstate, predominantly dealing with black coal and a
13 little bit of work in WA which is what they call a black
14 lignite which is a high ranked brown coal but they refer to
15 it as a black coal.

16 You are probably just the man to ask a little bit about coal but
17 if we can focus in on the experience you have. The roles
18 you had in the black coal industry in Queensland, what were
19 you doing there?---I spent a substantial amount of time as
20 a principal explosives engineer and in that explosives
21 field I spent time as a principal engineer across all of
22 the main sites, I spent time at a site as an operation
23 superintendent. I have also spent time in management and
24 fleet management area, so management included being a
25 legislatively appointed manager for Urban (indistinct) in
26 Queensland and also site manager doing primarily fleet and
27 materials handling.

28 We know from your report you have had very recent experience of
29 being at the Anglesea coal mine and making assessments of
30 the fire mitigation plans there and I will you about that
31 in detail, but had you had any experience of the Anglesea

1 coal mine before this most recent work you are done?---From
2 desktop point of view I managed a couple of engineering
3 studies around mine planning, just reviewed the mine plan
4 and again, that was a materials handling and a delivery
5 schedule process and that was pretty much the extent of my
6 exposure.

7 The firm on the other hand has quite a longstanding relationship
8 with Alcoa at the Anglesea Mine, does it not, going back
9 what some, 20 years or so?---Correct, Mining One has been
10 operating for just under 10 years, has had continuous
11 involvement with Anglesea primarily in the geotech sense,
12 and we have a number of people in the office who have had
13 20 years plus exposure to the Anglesea operation.

14 And sorry, did you say you have been with Mining One for how
15 long?---Just over two years.

16 For over two years, thank you. You have mentioned black and
17 brown coal and I think it's as well to ask you now if you
18 can briefly give us the differences between the two,
19 particularly perhaps having regard to fire issues?---Yes,
20 look, the formation of coal basically it's a time and
21 pressure related event, sometimes you have volcanic events
22 that can accelerate the process but fundamentally brown
23 coal is a much younger form of coal. They tend to be more
24 porous as the forest which is the source of the coal breaks
25 down, so you find good indicators are things like moisture
26 content. So if you look at some of the local lignites like
27 you see out of Hazelwood you find moisture content is quite
28 high and as you move towards a better quality coal, so
29 we're starting to talk about anthracites, anthracites have
30 pretty much got a zero moisture content, that largely is an
31 indicator of the void space within the coals. From a fire

1 point of view that can become an air space if you let the
2 coals dehydrate.

3 I see. Do you have experience of the Latrobe Valley coal mines
4 as well?---Again, not firsthand, I have been to Latrobe
5 Valley, I have seen the coal operations and from a
6 marketing point of view I was over there doing some
7 promotions work but as far as operations I haven't had
8 involvement.

9 You were though at the Hazelwood Mine during the time the fire
10 was burning, were you not?---Correct, I was, I did a
11 promotional visit over there at the time the fires were on.

12 Are you able to tell us how at what point in time the burning of
13 that fire were you there, was it early on, towards the
14 end?---I would have to check my diary but from recall it
15 was probably three weeks in from the start of the fires.

16 Mr Farrington, we have in evidence already a report that was
17 prepared by you through Mining One and perhaps it's best if
18 I clarify that. Do we consider the report your own work or
19 do we consider it to be a Mining One product particularly
20 give that it was the subject of review and sign off by Mr
21 Bill Fraser?---Yes, look, it's a Mining One report and I
22 was Mining One's representative.

23 Mr Fraser signed off, I don't need to go to it but is that part
24 of an internal process followed within Mining One that is
25 followed within such reports?---Correct, Bill's background
26 in coal is limited and his review of the report was
27 primarily to check its content and make sure the literature
28 was okay,

29 But that is a formal process within Mining One, that is a type
30 of endorsement, is it, by the firm of the product of the
31 report?---Correct.

1 CHAIRMAN: On that score, the opinion is expressed, is it
2 appropriate to talk to them as being your opinions, or does
3 one give it that which to some extent detracts from its
4 value it's Mining One's assessment?---That would be my
5 opinion.

6 So where there is an opinion expressed it would be appropriate
7 to say that is your opinion really?---Yes.

8 MR ROZEN: Thank you, sir.

9 It is Mining One's assessment?---That would be my opinion.

10 So where there is an opinion expressed, it would be expressed to
11 say that that is your opinion?---That's right.

12 MR ROZEN: Do you have a copy of the report in front of you?---I
13 do.

14 I know it is already part of the evidence, but I think in the
15 circumstances, it might be appropriate to mark it as a
16 separate exhibit.

17 CHAIRMAN: Yes, even though it is a kind of duplication.

18 #EXHIBIT 21 - Mining One report.

19 MR ROZEN: I should ask you formally are the contents of the
20 report true and correct?---Yes.

21 And to the extent that you express opinions, and you obviously
22 do, they are opinions that are honestly held by
23 you?---That's right, yes.

24 21, sir?

25 CHAIRMAN: Exhibit 21.

26 MR ROZEN: If I could start by asking you about the process by
27 which you were engaged by Alcoa to do this job. That is
28 obviously something that has happened fairly recently. We
29 know from the report itself that you had a site visit there
30 on 23 June of this year. Clearly you had been engaged
31 before that. How long before the site visit were you asked

1 to do this work?---I was made aware of the work probably a
2 fortnight before the work occurred and I was asked to
3 attend site on the back of some other work that I was doing
4 for the goldmine and the 23rd was my first available time
5 within my calendar.

6 The scope of the work that you were asked to do, is it
7 adequately set out on page 1, under 2.1, Scope of Work, if
8 you could just have a look at that. It reads, "With the
9 shutdown of the mine currently scheduled for 31 August
10 2015, there remains a substantial body of work to be
11 completed to ensure the site is secured and minimal risk
12 from ash attack or spontaneous combustion occurs. Alcoa
13 have commenced a program of covering the in-pit coal assets
14 and requested Mining One to provide some advice pertaining
15 to the strategy", and then there are three specific tasks
16 that you were given; is that right?---Correct.

17 "First, to validate that the current method and approach to
18 encapsulation will suffice to secure the site until final
19 closure rehabilitation can be started." Just in relation
20 to that, it was the case that the work had already started,
21 that is the encapsulation of the coal had already started
22 before you were engaged?---That is correct.

23 So what you were asked to do is validate something which was
24 already occurring?---Yes. It was to come in and give a
25 professional opinion as to whether the measures being taken
26 were adequate for an interim closure until final
27 rehabilitation occurred.

28 And then the second matter related was to calculate the volume
29 of material required to cover the pit floor. Approximately
30 32 hectares was estimated by Alcoa but was later
31 established to be 41.3 hectares, as well as to determine

1 what volume is required to buffer any exposed coal seams in
2 the west wall of the pit." I'll come to that bit of detail
3 in a moment. And then the third task was, "To review the
4 pit and advise of methods and strategies to improve the
5 success of the interim mine shutdown exercise." You then
6 go on and make the point, "The work is to be based on a
7 best professional judgment, as the scope of work did not
8 include a full technical assessment of the soils." Can you
9 explain what that means?---As far as reactivity of the
10 Anglesea coals go, everything was based on observation and
11 the information provided to us from Alcoa and some
12 consultation internally with our personnel, who had had
13 some exposure to the operation. So therefore in terms of
14 adamantly stating that the coal had a particular reactivity
15 to oxygen, et cetera, I can't say, all I can say is yes it
16 is reactive, it has some characteristics that have been
17 displayed based on history.

18 Let me ask you about the methodology you followed. We have
19 already referred to the site visit you did on 23 June. How
20 long did you spend at the site? Was that a complete
21 day?---Yes, it was.

22 Obviously you toured the mine area. Had you been there before
23 that date?---I hadn't visited Anglesea prior to that, no.
24 I was aware of what the site looked like because of the
25 planning exercises that I'd been involved in, but outside
26 of that, no, I hadn't had a physical contact with the
27 operation.

28 I take it you met on that day with the manager and
29 representatives, Mr Rolland?---Chris Rolland, yes.

30 He was your main point of contact, was he?---That's right, yes.

31 Did you speak to other employees when you were there?---Not

1 while on site, no.

2 It is apparent from your report that you have done a certain
3 amount of research of literature to do with spontaneous
4 combustion issues and general coal and fire-related
5 matters. Did you have cause to look at any of Alcoa's
6 records?---I did ask for some records regarding fire
7 histories and stuff and, unfortunately, those histories are
8 only captured fire events, so it was quite limited.

9 Can I just get you to clarify that. "Captive fire events" did
10 you say?---Yes, captured fire events, so it only really
11 recorded when flames were evident on the coal and the one
12 event that was recorded in that was machine fire related.
13 All of the steamy events and stuff that they get on a
14 regular basis hadn't been well captured and recorded, and
15 that's in line with a lot of operations around legislative
16 reporting.

17 So there are certain fires, if I can use a broad term, that have
18 to be reported to the regulator?---Once a flame becomes
19 apparent is generally when the reporting process is
20 formalised.

21 So the records reflected that reporting requirement, did
22 they?---Yes, and that is not unusual.

23 I understand. But it was apparent to you, at least from your
24 discussions with Mr Rolland, that - you have referred to
25 steaming coal and those early spontaneous combustion events
26 - were not regular occurrences but they certainly did
27 happen from time to time at the mine?---No, discussions
28 with Chris Rolland indicated that that predominantly
29 occurred where fines had been disturbed, they'd been
30 rolled, so aerated, and that was supported further by
31 internal Mining One personnel, who had been involved with

1 the operation and their observations.

2 Were there any other aspects of how you went about your task
3 that you need to tell us about?---Primarily it was going
4 down and touching and feeling the material that was being
5 used for capping. The coal has exposure to either a
6 spontaneous combustion event or an ash attack and
7 spontaneous combustion occurs as a result of exposure to
8 oxygen and that pretty much happens with all coals at the
9 time of exposure to air, so the checking of the materials
10 for capping was to just make sure it was going to be
11 suitable to seal the air from getting to the coal and
12 prevent that spontaneous combustion happening in the medium
13 term.

14 It's just probably useful to look at some paragraphs in your
15 report while we do that. At page 14 of your report,
16 page 249 on our system, there are a series of photos of
17 what I think may be your hand?---It would be my hand, yes.
18 There are six photos. Perhaps we'll start in the top left-hand
19 corner. There is a photo which is entitled Sand. Can you
20 explain to us what these different photos show?---What they
21 are showing is just how cohesive the material is that was
22 being placed on top of the coal and in all cases they have
23 got a little bit of moisture in them and that is the way it
24 presented on the day of the visit and it just shows, number
25 one, particle size and, number two, clay content. So these
26 are - the picking up and handling and (indistinct) the
27 material is a civil practice that is used for the
28 construction of dams and just doing field testing for
29 material suitability and the same applies for the capping
30 of coal. You're looking to get an approximate indication
31 of what the clay content is. As you scroll through, you

1 can see that there is a varied range of materials available
2 to Alcoa for capping material and it ranges from just being
3 a sand with very small amounts of clay evident right
4 through to a very high clay content material.

5 If we can just scroll down that page, please?---And along with
6 that was tabled a table that just provided a bit of a
7 reference to how much clay would be present in each of
8 those, based on, again, field measures.

9 Is that table 3.1 that you're referring to on page 12?---That's
10 correct.

11 This is the result of the work you did to establish the clay
12 content of the different soils?---That's right. Now, clay
13 is important for two reasons. Clay is elastic, so with any
14 geotechnical movement, it has a little bit of tolerance to
15 opening up, to cracks opening up. It also helps retain
16 moisture within the surface which, again, helps create a
17 seal across the top of the coal.

18 I just might get you to expand on that concept of a seal. We
19 sometimes hear about a cling wrap effect. Is
20 that - - -?---That's right.

21 We're talking about the same thing?---Yes. If we could cling
22 wrap the coal, that mitigates oxygen entering the coal
23 seam. Obviously, when you are dealing with elements such
24 as dirt and soils, there is a whole lot of variability and
25 in the case of Anglesea, not only is it gifted material
26 from the geology but it has also been mixed and blended
27 over the handling and dumping. A lot of this material is
28 coming from old waste dumps, so it has been mixed up
29 already. But based on the site visit observation, a lot of
30 the material was fine grained and suitable for capping.

31 I'll come back to capping. I'd like to start by asking you a

1 little bit about your assessment of the risk in the first
2 place because it would seem, and correct me if I am wrong,
3 that you can only assess the effectiveness of a fire
4 mitigation strategy if you start with some understanding of
5 what the risk is that you're dealing with in the first
6 place. I think it is fair to summarise your assessment of
7 the risk, both from an ember attack point of view and also
8 a spontaneous combustion point of view, generally speaking
9 you have assessed that as quite a low risk at this
10 mine?---That is correct. I think Anglesea, from first
11 inspection, presented as a pretty low risk and I think some
12 of those were stated before, in terms of the site is
13 relatively compact, so it is easy to inspect and review for
14 any potential hotspots or ash attacks. As far as the ash
15 attack goes, the risk with ash attack is largely to do with
16 fines material, so it is akin to a camp fire. If you put
17 kindling on the camp fire to get your fire going, it takes
18 quite quickly. One of the recommendations that was made
19 was to remove any old fines from the pit area prior to
20 capping and then capping it. The other area of concern
21 within an ash attack with regard to the fines is
22 accumulation of fines around the (indistinct) faces. That
23 occurs as a result of erosion. So fines being removed and
24 then capping with the one metre of capping would pretty
25 much mitigate any fines accumulation at the vertical faces.
26 So that was a logic that was applied. As far as ash attack
27 goes, you need time for the ash to actually create the
28 fire. You're talking massive coal in the exposed faces and
29 hence why the vertical faces were deemed to be a relatively
30 low risk. As far as the spontaneous combustion goes, there
31 is an oxidation process that occurs within the coal when it

1 is first exposed, and that is at its highest when you first
2 expose the coal. Again, as an analogy, most people have
3 seen fresh steel exposed to water. It will pretty much
4 rust overnight and it is quite a rapid rate at first, but
5 then as time progresses, it gets to a state where it seems
6 to stabilise. Rust is still occurring, but it slows down
7 and over time, it will eventually rust out. Coal is
8 exactly the same. It has an initial oxidation rate, which
9 is where a lot of your heat comes from, and generally that
10 is over the first three months. I have put a two year cap
11 on this for the risk for exposed faces and after that, I
12 have indicated that you go down to weekly inspections. A
13 lot of the faces at Anglesea have been exposed for some
14 time and we're talking, some of the faces, up to 20 years
15 and less for a lot of others and I have used the time
16 exposure as an indication, and history, to say these are
17 relatively low risks from a spon com point of view.

18 I just want to focus back on the ash attack issue. If you look
19 at page 16 of your report, which is page 251 in our system,
20 you'll see this is part of your assessment of the risk. So
21 you have looked at the spontaneous combustion risk and you
22 have looked at the ash attack risk. I take it you exclude
23 other ignition sources from vehicles and the like, for the
24 fairly obvious reason that in a non-operating mine, those
25 risks either disappear completely or they are so small as
26 to be inconsequential?---That's correct, and the context
27 was that there was going to be ongoing geotechnical
28 inspections, which would be probably the third point of
29 concern, which is cracks opening up and letting air
30 inundate the coal and potentially having hidden heating
31 events.

1 If I can just focus in on the ash induced fire. I want to ask a
2 couple of questions based on the Hazelwood experience. At
3 the top of page 16 of your report, under the heading Ash
4 Induced Fire Event, you say, "Ash induced fire events refer
5 to coal fires that are ignited as a direct consequence of
6 localised bushfires, causing embers to fall on to the
7 coal." If I could just pause in the reading, that, of
8 course, is precisely the scenario that occurred at the
9 Hazelwood Coal Mine fire. And you go on, "The biggest risk
10 of ash event is associated with horizontally exposed coal,
11 where the ash can rest on the coal, causing ignition. For
12 this reason, all horizontally exposed coal should be
13 covered with one metre of waste material." We have heard
14 quite a deal of evidence about that. You then go on and
15 say, "Vertically exposed coal presents a lesser risk, as
16 embers are unlikely to rest on the wall. However, in the
17 event of localised fire, the coal should be carefully
18 monitored and preferably wetted with a suitable
19 fire-suppressing chemical so as to mitigate the potential
20 of ignition." I just want to stop there for a moment
21 because you have said a couple of things which seem, at
22 least superficially, to not fit entirely comfortably with
23 what the experience was at Hazelwood and I just want to get
24 your opinion about this. You have said what you say there
25 about the difficulty of embers lodging on to vertical or
26 near vertical surfaces, and I think we can all understand
27 what you're saying there, but you have also talked about
28 the aged coal presenting a lesser risk than the more
29 recently exposed coal. The evidence at the Hazelwood
30 inquiry was, for example the northern batters, which burnt
31 for weeks on end, was an area that had been exposed for

1 well over 20 or 30, and perhaps up to 50, years. So I'm
2 just trying to understand what seems to be a conflict
3 between what actually happened there and the opinion that
4 you have expressed here. Are you able to assist us with
5 that?---Look, I can. From an ash attack point of view,
6 starting a fire is the vital ingredient here, so that is
7 why we remove all the fines. That is generally the point
8 of ignition. Once the fines establishes enough heat and is
9 exposed to mass coal for long enough, the massive coal
10 takes off and that is where you start to get the fires in
11 the face. Now, if you look at the moisture content of the
12 Latrobe Valley coals, they have got quite high moisture
13 content there, so that indicates to me that there is a
14 substantial void in there. With exposure to heat, that is
15 drying out and you're getting oxygen getting into the coal
16 and you're fuelling that fire, so again, the spread of coal
17 and the temperature of the burning from the Latrobe Valley
18 fires is likely to be higher than an event at Anglesea, but
19 it is really about not totally removing the risk of a fire
20 but it is about stopping the - giving the best chance of a
21 fire not starting in the first place, which is removing the
22 kindling, and the other one is a balancing act, which is
23 about maintaining access to those coals so you can actually
24 address a fire event if it does occur. I guess in respect
25 to the report, there was a bit of a concern that the
26 mitigation strategy would be, I guess, half done and if you
27 half cover the coal and there is a fire event, getting into
28 the coal to actually attack the fire and put it out is then
29 mitigated. So leaving the coal exposed in the faces, in my
30 mind, is probably a lesser of two evils in some ways
31 because you can actually address a fire if it was to occur,

1 but the likelihood of fire has been mitigated because you
2 have removed the fines.

3 From your experience and certainly what perhaps you saw at
4 Hazelwood when you were there during the fire, are there
5 differences between the exposed coalfaces at Hazelwood,
6 apart, obviously, from their scale compared to what we have
7 got at Anglesea, are there other differences which would
8 mean the risk profile is different?---Yes, there is. The
9 Latrobe Valley, you have got 100 metre of coal exposure and
10 within that 100 metres you have got catch berms, which,
11 from an operational point of view, are put in to catch any
12 falling material from the faces and arrest it so that
13 machines operating below aren't exposed to material with
14 energy.

15 So these are the steps we see?---Correct.

16 We saw photos of them earlier?---They are referred to as catch
17 berms. They generally, in the Latrobe Valley, would be
18 used for services access as well, so things like electric
19 cables and pumps, water pipes, will be run on them as well,
20 but primarily in mines they are generally there for safety
21 reasons. So that exposes, I guess, a catch area for embers
22 and stuff on the actual coal, which you don't have at
23 Anglesea. The other one that is, I guess, an observation
24 and from discussions with - and the review of photos, is
25 there was a lot of vegetation on the catch berms at the
26 Latrobe Valley, so that is a fuel, as well as fines that
27 had accumulated at the time, and again, we have removed
28 those from Anglesea. So the residence time at Anglesea,
29 within the interim closure plan, is two years and
30 considered to be a reasonably short timeframe and the
31 likelihood of fines accumulating, on the basis that most of

1 those faces have been washed down anyway, is going to be
2 minimal. It will have to be managed, but the risk is
3 minimal.

4 Just going back to the vegetation issue at Hazelwood, I don't
5 know if you were in the hearing room when Mr Barry, from
6 the CFA, was giving evidence about what he saw of the
7 vegetation there earlier today. So you would identify the
8 absence of those catch berms - that is B-E-R-M-S; is that
9 right?---Yes.

10 The less quantity of coal fines, the lack of vegetation, they
11 are a number of differences why your assessment of the risk
12 of an ember attack fire starting on the vertical face at
13 Anglesea are quite different to the position at
14 Hazelwood?---They are very different and the nature of the
15 coal is that it is an older form of brown coal than the
16 Latrobe Valley.

17 Yes. Thank you. If I can turn then to your assessment of what
18 has been referred to as the overburden strategy or the
19 capping or covering of the coal. That was really the
20 central task that you were asked to perform, an assessment
21 of that strategy?---Correct.

22 If I could just ask you in general terms. We have heard other
23 evidence about that being done elsewhere in industry, in
24 other words not something that has just been invented at
25 Anglesea this year. What is your experience of the use of
26 capping of coal as a fire mitigation strategy
27 elsewhere?---It is quite commonly practised. In the black
28 coals, for example, we don't cap. We'll go out and we'll
29 compact our stockpiles. So it is about removal of the air
30 and compaction in those more mature coals is adequate and
31 as you move away from those older coals to younger coals,

1 the mitigation tends to lend itself to bringing material in
2 in capping. The idea of the capping material is a clay. I
3 did discuss with Chris Rolland the opportunity of reducing
4 the capping in the areas where the mine had already been -
5 the coal had already been mined, so there is a lot of areas
6 within Anglesea where the floor, even though it is black,
7 is actually just sitting above a clay substrata, but that
8 was a material handling issue which was basically - the
9 metre enables the equipment to get out there and place the
10 material. I think in those areas the metre is more than
11 adequate. We kept the metre wide across the coal seam
12 being adequate for capping the massive coal seams as well.

13 I just want to ask you about that, and if it helps you at all to
14 refer to the aerial photograph there, then please do. That
15 is the one furthest away from you on my right as I'm
16 looking at the board. We've all been talking about
17 covering the coal and covering the horizontal surface. I
18 want to get some understanding from you about what we're
19 actually talking about. These are areas of the mine where
20 coal has obviously been removed to a particular depth and
21 then it's stopped, is that right, they haven't gone any
22 deeper, presumably because there's not sufficient coal to
23 keep mining, have I got that right?---Underlying the coal
24 seam is a layer of clay.

25 A layer of clay?---Yes, and based on the readings of some of the
26 hydrology reports for the area, that is an important
27 mechanism within the local aquifer system. So what happens
28 is the mine would be mined down to the coal just above the
29 clay but not - try not to take the clay because that clay
30 would report as a waste product and it is not an energy
31 source for the power station. So that coal - when I was on

1 site, the mining area was predominantly down in this
2 south-western corner. A lot of this region around here
3 where you can see these white zones coming through
4 basically had been mined out. This coal through here was
5 quite thin and within that spontaneous combustion event,
6 one of the things that does assist with prevention of
7 spontaneous combustion is about spreading the heat out. So
8 a normal practice, if you do get a hotspot in a stockpile,
9 is to spread the coal out and let it cool. This coal was
10 effectively already spread out, it has got a nice cool
11 strata underneath it that helps dissipate any heat, so
12 that, in effect, is keeping it very cool and it is very
13 unlikely - the potential of this actually igniting is very,
14 very low because of that reason.

15 So that is the area to the north-east of that black area that we
16 see on the photo, which is Exhibit 3B?---This region down
17 here that was being mined and had massive coal exposure.
18 And that is of greater concern from a spontaneous combustion
19 point of view?---Correct.

20 In the other areas, you discussed with Mr Rolland the
21 possibility of putting less than a metre of overburden on
22 it, but ultimately the decision was made, for reasons of
23 accessibility, to cover the entire area with a
24 metre?---Correct. Down in the south-western corner, I
25 advised to target high clay content material specifically
26 for that area because it presented as a higher risk.

27 So in addition to a metre, you also were keen to recommend the
28 quality of the overburden that was used, that is with a
29 higher clay content?---Correct.

30 The figure of a metre, is that some industry standard? Where
31 does that come from or is there no specific figure used in

1 industry because you need to take into account the
2 circumstances?---There is no specific figure. It is
3 realising the characteristics of the material being used.
4 I think I made reference in my report to a blocky
5 sandstone, for example, may need up to 10 metres of capping
6 because it readily allows air movement through that strata.
7 That is not the case at Anglesea. They have got small
8 particle size within the material that is being used for
9 capping, which mitigates air movement, but it also enables
10 any moisture to act as a sealant as well because the
11 moisture can actually seal it between the void spaces.

12 We heard some evidence yesterday from Mr Kelly from the WorkSafe
13 authority. He made reference to, as I recall it, the use
14 of a 300 mm layer of overburden, particularly in the
15 Latrobe Valley. Is that something you have any experience
16 of and can comment on?---Again, black coal doesn't use
17 300 mm. We would usually just run a compactor over it and
18 compact it to get it to seal and that would be adequate to
19 prevent any further combustion from a spontaneous
20 combustion. 300 millimetres would be adequate if the
21 material was suitable. Again, if you could go and find
22 some cling wrap and put that on, you could get it down to a
23 couple of millimetres, even - as long as you could
24 guarantee that it was going to stop oxygen ingressing into
25 the stockpile.

26 A lot of cling wrap, though?---That's right. Again, it comes
27 down to material properties and hence why the focus on clay
28 content was central to the review that I did on site.

29 So there is a quality dimension, there's a quantity
30 dimension?---Correct. Quantity just improves the
31 probability of success.

1 Is there also an issue here, given that this is a relatively
2 short-term exercise, the covering of the coal, in the
3 context of a medium and long-term general rehabilitation of
4 the site, do those two interrelate, in a sense, in the
5 amount of overburden you want to use to cover the coal?---I
6 think so. Again, if there is a hotspot within the mine
7 that is self-fuelled, by having only a metre over the coal
8 seam enables you to readily access that coal and address
9 the heating event and put it out, so there is that, and I
10 think the interim measure is actually going to, in the
11 long-term, play a benefit because it will give Alcoa two
12 years to observe the behaviour of the deposit and address
13 any issues, if there are any. I don't believe there will
14 be any issues, just based on the information that was
15 provided to me and the observations that have been made by
16 the various people that I spoke to, but if there was, it
17 just provides a better opportunity than if you were to go
18 to a more extensive process.

19 Is there also a practical issue about the availability of
20 overburden? Covering 42 hectares with a metre, that is - I
21 haven't done the maths - that is a lot of overburden,
22 obviously, that's needed. Is there more available on site
23 if you wanted to cover it to a greater depth?---The
24 material is there and available, but one of the things is
25 to actually address this in the most viable way possible
26 from both an environmental and a cost point of view, so
27 there is a balancing act there. The best material on site
28 - one of the better materials available on site is the clay
29 that underlies the existing coal seam, but the material
30 handling exercise and the issues around the importance that
31 has to the local aquifers means that that was crossed off

1 pretty early. Another material that would be more than
2 suitable would be the ash that comes from the power
3 station, but there is a whole lot of environmental concerns
4 with that across industry, and that is whether the material
5 is radioactive, whether you're introducing fines for any
6 water suspension and, you know, generally it contains a lot
7 of salt, so you're trying to avoid introducing that into a
8 water table unnecessarily. So there are better materials
9 available than what is being used, but based on the balance
10 of all options, I believe the option that Alcoa had already
11 adopted before my visit was appropriate.

12 And you specifically in your report - we don't need to go to it
13 - at pages 5 and 17, you specifically say that Mining One
14 endorses that minimum capping levels, subject to
15 recommendations made about ongoing monitoring which I want
16 to turn to now. We know from the evidence and you refer to
17 this in your report that although the initial proposal was
18 to try to cover all the coal including the vertical face in
19 the southwest, because of time constraints and also the
20 inability to push the soil down from the above the wall
21 because of a cultural overlay, that that hasn't been
22 possible. My understanding from your report is your sort
23 of option one, your preferred approach would have been to
24 cover everything if it was possible to do it?---I think if
25 time allowed and the resources were available that would be
26 is the preferred option every time and that's on the
27 provision it gets done correctly so the material's
28 adequately compacted and prevents oxygen access. The
29 second option is you either do it properly and do it all
30 and put a lot of resources in now, or leave it exposed and
31 give you the opportunity to deal with any issues. So there

1 is no middle ground on it in my view, I think you either go
2 one way or the other and considering the time constraints
3 and also the history of the operation and its ability to
4 not having massive heating issues in its coal, I believe
5 that's the best option for it for Alcoa.

6 You draw comfort from that lack of fire history?---Correct.

7 As a predictor of likely future events?---That's right, and

8 look, it's not a volatile coal so if a fire was to occur
9 it's not going to ignite rapidly, it's likely to be

10 addressed with, you know, normal fire fighting techniques.

11 In the absence of covering of that coal, at page 22 of your

12 report, page 257, you set out a series of recommendations

13 which really in effect summarise the content of the report

14 and sort of bring together your proposals for what they do,

15 and if I can summarise it you recommend an inspection

16 regime to address specifically inspection of the exposed

17 vertical coal but also to enable a valuation to be made in

18 the event there is a significant rain event because of the

19 potential for erosion?---That's right, erosion presents as

20 a risk. One of the good things of the material that's

21 being used for capping is this fine grained and small

22 sided, it is a great medium to prevent air entering onto

23 the coal's surface. The down side of the fine grain is it

24 is easily displaced by water, so it will be susceptible to

25 erosion.

26 If I understand correctly there are at least two erosion

27 scenarios you're concerned about, there is the one you have

28 just been talking about which is rain streaming down the

29 exposed vertical wall potentially?---Creating fines.

30 Creating fines, which would then lodge at the base of that wall

31 and I think you already explained to us when we talked

1 about Hazelwood that that presents a particular potential
2 risk?---I don't know what the mechanism of Hazelwood was, I
3 can only surmise, but it certainly increases the risk of a
4 fire potential by having those fines on the coal.

5 Is the other concern for erosion of the overburden that's
6 covering the horizontal surface, is that also a
7 concern?---Yes, it is yes.

8 What specifically are you looking for there, cracks appearing in
9 the overburden?---No, just excessive wash-outs so, you
10 know, small rivers forming on top of the coal, just going
11 to need to be - once you identify erosion channels, the
12 ideal would be to undercoat that with maybe some more
13 competent rock. For the short duration of the interim
14 closure period though, I mean an ongoing top-up of the
15 capping would suffice as well, that will be something that
16 Alcoa would have to ensure was maintained.

17 As you say, probably the first heavy rain is going to reveal the
18 areas that are going to be problematic?---Correct.

19 And then attention to be focused on those after any subsequent
20 heavy rain events?---Yes.

21 In terms of the monitoring, I'm looking at page 22 of your
22 report half-way down the page, the third little arrow, it
23 says: "Where practical the preferred method of securing
24 the exposed seams in the pit faces, that is the vertically
25 exposed coal, is to encapsulate this with waste material by
26 dozing over the exposed areas. This is more critical for
27 vertical faces that have been exposed for less than two
28 years. However, due to timing constraints and
29 practicalities of this the following mitigation can be
30 adopted as an optional strategy", that is an alternative to
31 the covering?---Correct.

1 "Length and vertically exposed coal open to the elements for
2 faces that have been exposed for less than two years daily
3 monitoring must be conducted for the initial three months
4 post closure, twice weekly thereafter." You have already
5 explained to us how you came to that two year cut-off,
6 that's actually quite a conservative assessment of the
7 risk, I think you told us it's really the first few most of
8 exposure?---Correct.

9 Are there parts of the southwest wall as far as you know that
10 fit into that category?---The area adjacent to where they
11 were mining down in the south western area would fall into
12 that category, there was adequate material in the mining
13 area and outside the - I guess the heritage area that was
14 available for dozing down and discussions with Chris
15 Rolland on the day indicated they were going to doze that
16 down which I was happy with. At the end of the day it's a
17 decision from Alcoa, I have given them, I guess, the
18 alternatives, how they approach it is up to them. The
19 ongoing monitoring is going to be essential in the
20 immediate term just to make there is no spon com issues if
21 that coal is left uncovered.

22 That change from daily monitoring to twice weekly after three
23 months, so presumably that's by 1 December assuming this
24 regime is in place on 1 September, what's the significance
25 of the three month period?---It's just the coal oxidizes
26 when it's first exposed. So the three months just gives it
27 residence time to indicate whether it's going have any real
28 hotspot issues, and the fallback to twice weekly is really
29 a case that monitoring needs to be kept up with it but it's
30 not a daily exercise, it's not being disturbed, it's got no
31 equipment turning over any of the material so it's not

1 being aerated so it's in a stable state once you get to
2 that three months period.

3 "For faces that have been exposed for more than two years", and
4 that's the majority of this western wall we're talking
5 about, very much the majority: "The face must be inspected
6 once a week for signs of spontaneous combustion", and that
7 I think is self-explanatory. Then: "If there a heating
8 event", that's the steaming coal or similar event, "then
9 daily inspection must resume for a period of three months
10 after the event for twice weekly until the face has shown
11 no spontaneous combustion issues for more than two years",
12 and you go on to refer to the need to maintain a water
13 cart. Then you give an example of a product called Flame
14 Out and I think attached to your report are examples of
15 that?---Correct.

16 Can you explain what that is and what role it might
17 serve?---RST, and again it's an example of some of the
18 products that have been getting marketed to the industry
19 have done work specifically for spon com fire mitigation
20 and that was an example of the RST product. But look,
21 there are plenty of other products out there, it is just an
22 example, what it does is it creates a layer over the coal
23 to stop oxygen ingressing into the coal so the potential
24 for upon spon com is mitigated during fire event.

25 Finally, Mr Farrington, under the heading, "Risks", you deal
26 with three matters that are sort of ongoing concerns and I
27 think we have already addressed some of them, page 21 or 25
28 of in our coding, do you see the heading there?---Yes.

29 You say: "There are a number of risks associated with the
30 interim shut down strategy. These risks include firstly,
31 if horizontal coal exits are not full encapsulated and/or a

1 strategy adopted to monitor the uncovered vertical coal
2 faces rather than to provide cover, then adequate resources
3 must be at hand to address any unplanned heating event. If
4 inadequate plans are in place then the consequences could
5 be significant for Alcoa." Can you explain what you mean
6 there by adequate resources?---Look, with mine closure
7 generally your operators or the personnel who operate the
8 equipment and can attend to things on an operational basis
9 are absent. So it was really about making sure there was
10 some recourse and that that was in place to carry out those
11 normal functions. So it's fine to say there is a water
12 cart there but if there is no operator those sort of things
13 need to be attended to. And I made recommendations to set
14 up a TARP, or a trigger action response plan or a target
15 action response plan depending which definition you're
16 from, but basically all that is an escalation plan to say
17 if this occurs then you need to have these things in place,
18 if that occurs - they are used quite extensively within the
19 mining industry for just getting yourself ready for that
20 potential event. A good example would be a bushfire
21 approaching, you would have different levels of alert based
22 on how close that bushfire was to the operation.

23 Is a further example that even in the absence of a specific
24 bushfire, if you have a code red day identified that might
25 be a trigger for certain levels of preparation, having
26 staff on call?---Yes, or ambient temperature could be one
27 if there was a 45 degree day and it may require you go and
28 water the place down if necessary based on any heating
29 events.

30 You wouldn't have been here yesterday when Mr Rolland was giving
31 evidence, he told the inquiry part of the closure plan as

1 at the present date is for him to remain on site in a
2 supervisory capacity. That would, I suggest to you, be
3 beneficial in terms of oversight of the inspection regime
4 and the maintenance issues you have identified?---Based on
5 my exposure to Chris he is very confident, has a very good
6 understanding of the site and its characteristics and I
7 think he would be an ideal person to maintain vigilance on
8 the operation as a whole.

9 The second subject you mention is erosion which we have
10 addressed, then the third is the practical question of time
11 to deliver. At the time you wrote the report there were
12 ten weeks available to complete the encapsulation of the
13 coal. The evidence we have heard in the inquiry is
14 obviously more up-to-date than that and would suggest
15 generally speaking they are on track to cover the 41
16 hectares. Have you had any further involvement with
17 that?---No, look, I have spoken to Chris a couple of times
18 but no indication of whether they are on track or behind.
19 You make the obvious point that if they are falling behind there
20 is a need to consider additional equipment and the
21 like?---That's right.

22 They are the question I have, Mr Farrington.

23 Do the board have any questions?

24 <CROSS-EXAMINED BY MR TAYLOR:

25 Could Mr Farrington please be shown exhibit 7A, the panoramic
26 photograph, Alcoa.001.005.009. Mr Farrington, you have had
27 a couple of visits to the mine site I think, have you got
28 in front of you a photograph you you're prepared to
29 recognise as being a panoramic view of the Anglesea Mine
30 site at Alcoa?---That's taken from the southern wall, is
31 that correct?

1 Yes, and it sweeps across the southern high wall, the western
2 exposed wall and you can see running pretty much through
3 the centre one of the tracks, do recognise that?---Yes, I
4 recognise the area, yes.

5 If I could ask you, and you don't need to leave your seat, you
6 were taken to the photograph on the right of the two
7 photographs on your left by Mr Rozen a moment ago, we
8 understand the photo to the right which shows a far greater
9 exposed area of coal and you described some of the mined
10 out areas as having been taken on 1 January 2015. Does
11 that give some indication to you if you compare that photo,
12 that is the large aerial shot with exhibit 7A of the
13 progress of the overburden work at the mine site?---Look,
14 that pretty much agrees with discussions I had with Chris
15 Rolland what I guess is nice to see from my point of view
16 is down near the dam on the right hand of that photo there
17 is a lot of the white material has been laid, and then as
18 you go towards the exposed coal seams to the left you can
19 see that orangey colour starting to creep in which
20 indicates to me that is potentially a higher clay content
21 material, so it looks to me they have adopted the agreed
22 strategy.

23 That being the strategy of the lower southwest area of what was
24 the exposed coal bed at the start as at the start of the
25 year being the greater risk, what you see in that
26 photograph is consistent with having selected a higher clay
27 content material to encapsulate that?---That's right, yes.

28 Thank you. 7B, please, Alcoa.001.005.0010. Do you see before
29 you this is an area of the coal bed taken as I understand
30 it to the north of the panoramic shot on the screen
31 earlier, you indicated a depth specification of a metre, do

1 you see the staking in the ground there?---Yes.

2 You may not be able to comment on the height itself but my
3 instructions and the evidence to the board is that those
4 stakes are intended to indicate a depth of a metre, and
5 they are progressively laid out throughout the process of
6 encapsulation?---Without going to see the stakes and what's
7 marked on them they generally use them, it's common
8 practice is the stakes are used to survey the area and
9 provide a fill level, so the operators will be using them
10 as a measuring - measuring off that back face those stakes
11 are generally about 600 millimetres so that looks more than
12 adequate to do the task.

13 So those faces would be run across, we understand these are
14 actually longer so they give the operators a depth of 1,000
15 millimetres so a direct metre, and the material behind that
16 is consistent with the type of material you were
17 recommended?---It's one of the materials yes, that I looked
18 at.

19 I think your conclusions were the material available was
20 certainly adequate if not more than adequate for the
21 task?---The material's ideal except for I guess for the
22 erosion potential.

23 It was acknowledged by you in your discussions with Chris
24 Rolland that was part of the monitoring process that was
25 going to be put in place going forward?---Yes.

26 In reviewing this and including comments about the depth of the
27 material in the report, have you accepted what might be
28 described as simply a bare minimum? Have you said I will
29 go for the lowest common denominator here or have you
30 recommended and reviewed it on the basis of what is good
31 sound practice for this particular site?---The bare minimum

1 I guess is an industry practice that varies from site to
2 site, so that's a hard one to conclude. I think for me to
3 provide you with adequate coverage because of the ability
4 to get a digger onto it and put a hotspot out if need be.
5 If you go to 2 or 3 metres getting back to the coal would
6 be a very difficult exercise.

7 So you have had to go through a process of recognising two
8 necessities, the necessity to specify or approve of a depth
9 of overburden material that provides sufficient - and I use
10 that word deliberately rather than adequate - sufficient
11 encapsulation?---Yes.

12 But also recognises that there may still be in spite of the best
13 endeavours a spontaneous combustion event and that
14 excavation will have to take place to get down to that
15 material to treat the event?---Potentially, yes.

16 So you want to be able to do that reasonably quickly but you
17 also want to be able to ensure you have sufficient
18 encapsulation, yes?---That's right, and the encapsulation
19 is measured off the massive coal down in the south western
20 and the metre coverage that's been used for the rest of the
21 pit is probably more than adequate.

22 So therefore your objective in this bearing in mind that this is
23 a temporary process that works and will have to permit a
24 final detailed shut down of the mine, is to balance those
25 two exercises, is that correct?---That is correct.

26 And so ultimately the final objective for you is to prevent the
27 outbreak of a spontaneous combustion event or other fire
28 event within the coal pit or what was the coal pit
29 yes?---Yes.

30 Maximise the opportunity to deal with it effectively if it
31 occurs?---Correct.

1 So the ultimate objective is simply, doing the best you can, to
2 come up with a solution that prevents a fire?---That's
3 right, and it's not only preventing the fire but if a fire
4 occurred providing the best environment in which to deal
5 with the fire.

6 Those being your objectives, is your evidence to the board today
7 based on your best professional judgment the process that
8 you have reviewed and made certain recommendations in
9 respect of, if those recommendations are adopted, achieves
10 that result?---I believe so, in the absence of the final
11 closure strategy I believe this is the best interim
12 strategy.

13 We understand from Mr McGowan and others the final closure
14 strategy and full remediation process may well take up to
15 18 months to finally resolve?---That's what I was advised
16 as well.

17 Thank you, Mr Farrington, that's all I have.

18 MR ROZEN: I have nothing arising from that. May Mr Farrington
19 be excused.

20 <(THE WITNESS WITHDREW)

21 MR ROZEN: We have one final witness, Mr Incoll, I certainly
22 won't finish him before we were scheduled to break for
23 lunch. However, I'm confident we will comfortably conclude
24 his evidence this afternoon and I was minded to suggest
25 perhaps we have an earlier lunch break now.

26 CHAIRMAN: We will take an hour from now, so we will resume at
27 1.40, do I hear any objections?

28 MR TAYLOR: No.

29 LUNCHEON ADJOURNMENT

30

31

1 UPON RESUMING AT 1.43 P.M.:

2 CHAIRMAN: Yes, Mr Rozen.

3 MR ROZEN: The final witness to be called in this first public
4 hearing process is Rod Incoll. I call Mr Incoll.

5 <RODERICK ALAN INCOLL, sworn and examined:

6 MR ROZEN: Afternoon, Mr Incoll?---Afternoon, sir.

7 Can you repeat your full name and your work address,

8 please?---Roderick Alan Incoll, and I live at Mystery Basin
9 Rise in Bright.

10 Thank you, Mr Incoll. Mr Incoll, you practice as an independent
11 bushfire risk consultant?---Correct.

12 For how long have you operated as a bushfire risk
13 consultant?---For 25 years at least.

14 Before that, you had an extensive work experience, dating back
15 to 1960, as a forester and fire officer in many different
16 capacities?---Correct.

17 By way of formal qualifications, you have a Bachelor of Arts and
18 a Graduate Diploma of Business, both from Monash
19 University?---Yes.

20 And you have a Diploma of Forestry from Creswick?---Yes.

21 Is there a further forestry diploma qualification?---Yes. The
22 Diploma of Forestry (Victoria) is a diploma by thesis.

23 I see. You also have that qualification. You have published a
24 range of articles and other papers in relation to primarily
25 wildfire and different ways of addressing
26 wildfire?---Correct.

27 And you, like our first witness today, are the recipient of the
28 Australian Fire Service Medal?---Yes.

29 When was that awarded to you?---1997.

30 And, obviously, that recognised your lengthy career in
31 fire?---Yes.

1 As I say, you have already indicated you worked in a number of
2 capacities for the Forest Commission and other government
3 agencies and in particular for the SEC in the Latrobe
4 Valley?---Yes.

5 What was your role working for the SEC?---In the SEC, I was -
6 perhaps the title of the role would be the best way to
7 describe what I was doing. The role was called
8 superintendent of general services. That was everything
9 else except coal production in the open cuts. It was
10 services that supported production, like drafting,
11 surveying, forestry, as far as rehabilitation went, shift
12 fire service and some other similar things, but that was my
13 role up until the time when it became quite clear they were
14 setting up the organisation for privatisation, in which
15 case it changed.

16 You have also been a director of the Australasian Fire
17 Authority's council and a board member of the Country Fire
18 Authority?---Yes.

19 And your last position was - you were the chief fire officer for
20 the Department of Natural Resources and
21 Environment?---Several of those departments, yes.

22 Which has gone by various names, as I think we heard from one of
23 the other witnesses this morning. With all of that
24 expertise and experience, Mr Incoll, you now operate as a
25 bushfire risk consultant and specifically you've been
26 engaged by this board of inquiry to provide an independent
27 report?---Yes.

28 You provided a report along similar lines to the first Hazelwood
29 Mine Fire Inquiry in 2014?---Yes.

30 And that report looked specifically at the fire at the Hazelwood
31 Coal Mine, its causes and recommendations for avoiding a

1 future such occurrence?---Yes.

2 You have actually provided the inquiry with two reports. The
3 first is dated 21 July 2015 and it is EXP.0001.001.0001.
4 Do you have a copy of your 21 July report in front of
5 you?---Yes.

6 Have you had a chance to read through that before giving
7 evidence this afternoon?---I have.

8 Are the contents of the report true and correct?---They are.

9 And are the opinions you express in it opinions that you
10 honestly hold?---They are.

11 I tender that report.

12 #EXHIBIT 22 - Report of Mr Incoll.

13 I should add in relation to that report that annexed to it are
14 details of your previous work experience and also, at
15 page 40 of the report, 43 on our system, you've reproduced
16 the letter of instruction that you received, signed by the
17 solicitors to the inquiry?---Yes.

18 And it was that letter, and the questions in it, that you
19 addressed in your first report ?---Correct.

20 If you can just put that to one side for a moment and I'll come
21 back to it. After that was submitted, you received a
22 request to produce a supplementary report?---I did.

23 And the request came in a letter dated 23 June 2015?---Yes.

24 Sorry, I may be misleading you there.

25 CHAIRMAN: It is July?---Yes, it was July.

26 MR ROZEN: It was July. The one that is attached to the
27 supplementary report is dated 23 June, but it was certainly
28 later. It asked you specifically to address some staffing
29 issues in relation to the post-closure situation at
30 Anglesea?---That's correct.

31 You responded to that with a supplementary report, dated 26 July

1 2015?---Correct.

2 Have you had an opportunity to read through your supplementary
3 report?---I have.

4 Are its contents true and correct?---They are.

5 And the opinions that you express in it are opinions that you
6 honestly hold?---They are.

7 I will tender the supplementary report.

8 #EXHIBIT 23 - Supplementary report of Mr Incoll.

9 Mr Incoll, if we can go back to your initial report - that is
10 Exhibit 22 - in the letter of instruction that you
11 received, it sets out, and this is on page 40 of your
12 report, page 43 of the materials here at the inquiry - do
13 you have at that page a copy of that letter?---I do.

14 23 June 2015. There is some background information to the
15 inquiry set out and then paragraph 11 of the terms of
16 reference concerning the Anglesea Mine is there and then
17 you're asked to respond to five questions as set out in
18 that letter; is that right?---Yes.

19 And you were asked about your qualifications and so on, which
20 you have already addressed, and at the top of the next
21 page, question 2, "The specific manner in which fire could
22 arise from or impact on the Anglesea Mine after 31 August
23 2015." And you have addressed that in two parts, how fire
24 could impact on and how fire could arise in the
25 mine?---Yes.

26 I'll come to the detail of that in a moment. You were then
27 asked to comment on the sustainability practicality and
28 effectiveness of the measures taken and planned to be taken
29 by the mine operator to address those risks, particularly
30 having regard to policies and relationships with external
31 agencies - that is point 3?---Yes.

1 At point 4 you're asked whether, in your opinion, there are any
2 gaps or shortcomings in the existing framework that should
3 be addressed and, once again, you deal with that in a
4 discrete part of your report. And finally, the measures
5 that could be taken to address any gaps or shortcomings
6 that you identify and the sustainability, practicality and
7 effectiveness of these measures. So they are the issues
8 that you address in your report?---Yes.

9 There is then a list of documents that were provided to you and
10 you were told that the inquiry was seeking further
11 documents and it is the case that other documents that have
12 been provided to the inquiry have subsequently been
13 provided to you?---That's correct.

14 A little about the methodology that you followed in relation to
15 responding to that request. You have visited the Anglesea
16 Mine on two occasions?---Yes.

17 Had you ever been to the Anglesea Mine before you were asked to
18 prepare this report?---Many years ago, so certainly not
19 when it was under management by Alcoa.

20 I see. You, of course, have extensive knowledge of the Latrobe
21 Valley mines?---Based on my experience down there, yes.

22 And also more recently your visits to the Hazelwood Mine as part
23 of preparing a report for the first inquiry?---Yes.

24 When you visited the Anglesea Mine on either of those occasions,
25 you obviously looked around the mine and the surrounding
26 area?---Yes.

27 How far beyond the mine's boundaries did you go to look at the
28 surrounds?---I was quite keen to have a look at the
29 prescribed burning, so I actually went right around the
30 outside road up as far as the proving ground and then back
31 down and out, coming out on to the highway again at

1 Forest Road, but I stopped from time to time and walked up
2 side roads. In fact, I parked my car at the power station
3 and walked quite a way from the power station up into the
4 heath so I could familiarise myself with the fuel types and
5 the nature of the prescribed burning that had been carried
6 out.

7 Just in relation to that, we have a map of prescribed burning
8 that has been carried out, which is Exhibit 19. Was one of
9 the reasons why you went out in the heath to satisfy
10 yourself of the prescribed burning that had been done and
11 to match perhaps the reality with the information that you
12 were able to access about prescribed burning?---My
13 figure 12 has got that information and that's from the
14 departmental website. Not only has it got the information
15 about prescribed burning, but it has got the information
16 about two bushfires.

17 Yes. That is page 21 of your report?---Correct.

18 24 on the system?---I was also interested in that in the context
19 of the claims made on the departmental website about the
20 prescribed burning and its effect, as described in the fire
21 management plan for the area. So I wanted to validate as
22 much of that information as I could and then express my own
23 opinion.

24 Yes, I understand that, and I will come back to deal with that,
25 the bushfire risk issue. So that was when you were on
26 site. Did you also have the opportunity of talking to
27 Alcoa employees during the course of those visits?---On the
28 first occasion, yes, I was shown around the site. We had a
29 very good look at the site, via courtesy of Mr Rolland.

30 Who we have heard evidence from. Did you have the opportunity
31 to ask questions of Mr Rolland?---I did indeed, yes.

1 And receive information from him?---We had continuous
2 conversation and I found it extremely interesting and quite
3 different from the Latrobe Valley - the coal and, of
4 course, the operation.

5 I'll ask you about the second part of that. In what way was the
6 level of cooperation different?---Sorry, I was talking
7 about the coal and the operation.

8 The operation, yes. How is the operation - - -?---Quite
9 obviously very different.

10 In scale and - - -?---The nature of it, of course. The coal
11 transport operation was obviously one of the biggest
12 differences.

13 By conveyor in the Valley and here using trucks?---Truck and
14 loader, yes, and obviously a conveyor up into the power
15 station, but nowhere near the same length and therefore
16 nowhere near the same problems.

17 Yes. We'll come to those too. In addition to visiting the
18 site, you have obviously drawn on your experience of fire,
19 and particularly fire in relation to coal?---Yes.

20 And you have also done a good deal of reading and Internet-based
21 research to help you reach the conclusions?---A lot of
22 research, yes.

23 If I can start at page 2 of your report, which is page 5 on the
24 system. You have got a heading Preamble at paragraph 15.
25 You note that at a community forum that you attended - and
26 I neglected to ask you about that. You did attend a
27 community forum that had been organised by the inquiry at
28 Anglesea?---I did.

29 And that was on 28 June?---It was.

30 The format of that forum was that it was an informal, open
31 discussion with those members of the community that wanted

1 to come along?---Correct.

2 There were also representatives of Alcoa there and obviously
3 members of the staff of the inquiry and two board members
4 from - - -?---Correct.

5 You say in paragraph 15 that concerns had been expressed at
6 those forums and you say, "It is inevitable that
7 comparisons have been drawn between the Anglesea and
8 Hazelwood Coal Mines." And you have even set out some of
9 the differences. Are you able to summarise for the inquiry
10 your perception of the principal differences between the
11 two mines having regard to the issue of fire risk?---The
12 first one is obvious from the two photographs, which is the
13 scale of the operation. The area of the open cut can be
14 seen standing on the edge of the Anglesea open cut, you can
15 really see the whole operation, as we have seen from the
16 photographs this morning, notwithstanding the fact that it
17 has been going for 46 years. In the Latrobe Valley, it has
18 been going a little bit longer, but if you're standing in
19 one place, as I did in figure 1, I only got about a third
20 of the open cut. And then the distance. You can just see
21 a little bit of steam from Yallourn on the horizon.
22 That is a vast distance. And the (indistinct) on the ridge
23 to the right.

24 You're looking at figure 1?---I'm looking at figure 1, yes.

25 Page 7 on the system?---It is a very large operation and a very
26 complex operation and, of course, the sole reason for the
27 size is that it has yielded a lot of coal, initially, in
28 the early stages, about 11 million tonnes a year up to
29 currently - I think the peak production was about
30 17 million metric tonnes a year and it is just below that
31 at the present time.

1 Yes?---Required to keep the Hazelwood Power Station going, which
2 supplies a third of our base load power, so it is a
3 critical part of Victorian infrastructure, and as a result
4 of all that production for all those years, since - I think
5 it started in - the exact starting date of Hazelwood is
6 some years after the open cut started. It was originally -
7 it started in 1955 and I think it was probably in the '60s
8 that the units at Hazelwood started up. But all of that
9 coal has gone through mining through Hazelwood, and the big
10 differences, standing on the edge of the cut, are the depth
11 of the coal seam, where you have got obviously very deep
12 coal seams, 100 to 200 metres in places, and there is a
13 very small amount of overburden on top. I didn't put a
14 close-up photograph in there, unfortunately, but you can
15 really see that there is only a little skin of material on
16 top and then there is a great depth of coal and at
17 Anglesea, it is quite obviously much thinner, although it
18 slopes down, in figure 2, from left to right; there is much
19 more overburden at the left-hand side than there is at the
20 right-hand side.

21 If we could just scroll down the page, please. We are now
22 looking at Anglesea?---The yellow on top of the black is
23 bigger at the left than it is on the right. That is a very
24 significant key difference between the two and it has
25 enabled Alcoa at Anglesea to undertake progressive
26 rehabilitation, whereas when they started at Hazelwood,
27 they didn't dump internally at all, they took the
28 overburden outside the open cut. So the supply of
29 overburden for rehabilitation, the ultimate rehabilitation,
30 there always was going to be a problem stacking it outside
31 the open cut, of course, and it has got to be transported

1 quite a distance to get it back inside the cut. So the
2 scope and scale of the operation is the first major
3 difference, and that's because of the production, simply
4 because of the production. We know there is a lot more
5 coal at Anglesea, but the production required for the power
6 station wasn't anything like the same. In fact, I have got
7 a figure there of 1.1 million tonnes a year at Anglesea,
8 compared to 17.5 million tonnes a year at Hazelwood.

9 Yes?---So the scope and scale of the operation is vastly
10 different. And I think the other key major difference, and
11 it wouldn't be immediately obvious to the casual observer,
12 is the way they started the open cut at Anglesea, and that
13 was described to us this morning, started and covered with
14 overburden and taken them around to where their current
15 operating area is, backfilling all the way. At Hazelwood
16 they started right in under the town and the reason for
17 that was in actual fact they were talking about moving
18 Morwell at that stage. The SEC were very keen on moving
19 the Morwell township because the best coal is apparently
20 under the Morwell township.

21 Just as had happened to Yallourn?---Yes, that's right. Well,
22 they did move Yallourn, of course. They had the same idea
23 at Morwell, but the government said no, you can't do that.

24 The people of Morwell weren't that keen on it either?---That's
25 right, although they were all moving to East Morwell, I
26 think it was called. All the surveying had been done. But
27 that was kiboshed by the government and what that left them
28 with was steep coal batters and what subsequently became
29 known as the northern batters, and that started operation,
30 I think, in 1954, which has been described this morning as
31 steps and stairs of coal, which became re-vegetated but

1 with natural-growing vegetation. Some of the northern
2 batters was rehabilitated. The cliff of coal, as I like to
3 call it, underneath Morwell, wasn't, and that is what
4 subsequently caught fire.

5 Yes. And I think you have got a photo of the northern batters
6 on fire. If we could just scroll down to page 6 of the
7 report, page 9 on the system, figure 5?---That is a photo
8 taken from Doug Steley's report. He was on a fire truck
9 during the early days of the Hazelwood Mine fire.

10 From memory, it was on the first night of the fire that photo
11 was taken?---It was. You can see the lights of Morwell in
12 the background. To the left of the photograph is the
13 northern batters alight at two levels there. In the
14 foreground it is the south-eastern batters alight, but the
15 problems were mainly caused by the northern batters and you
16 can understand there's been a wind change and the
17 south-westerly wind is blowing. After the fire blew the
18 spots in, you had the south-westerly wind change and it
19 goes a bit around to the south, you have got Morwell north
20 of the northern batters and obviously all of the debris
21 from the fire, and there is extensive debris from the
22 burning of brown coal, has gone into the town and even if
23 there hadn't been a wind, there would be a natural
24 convection current which flowed through the mine and up
25 over the burning coal into the town. I think I measured
26 the closest house was 250 metres distant from the northern
27 batters. There was no intention of rehabilitating it until
28 the closing stages of the mining operation because it was
29 considered to be, (a), difficult, and (b), there was a lot
30 of infrastructure on there, but they needed to keep the
31 open cut operating. For instance, the power supply for the

1 pumps went down the northern batters on wooden poles
2 temporally, until the poles burnt, and that caused another
3 problem, but that is all part of that story.

4 Yes?---But that situation - the reason I put it in the paper was
5 to make the comparison and draw the comparison very clearly
6 to say there is no cliff of coal under Anglesea, there
7 never was a cliff of coal, as there is on the northern
8 batters, and it is quite a different situation and
9 hopefully that comparison would be useful to the people at
10 the community forums that were concerned that the same
11 thing would happen at Anglesea, particularly once the
12 company left.

13 Thank you. Just returning our focus to Anglesea for the moment,
14 if we could just scroll up to the previous page. You have
15 included two figures, figures 3 and 4, demonstrating the
16 changes in the Anglesea Mine. Perhaps if we can start with
17 figure 3 first, which is on the screen. What does the
18 yellow line depict there?---The reason I put that there was
19 to demonstrate how I calculated the perimeter of the mine.

20 There is a figure I have used in table 1 as being - - -
21 5.3?---5.3 kilometres and people would say, "Where did he get
22 that from?" That yellow line is 5.3 kilometres long.

23 And that is a Google Earth image that was downloaded?---Google
24 Earth Chrome it is, yes.

25 When was that image downloaded? Just recently?---It was done
26 for the report, shortly before the production date of the
27 report.

28 Okay. Thank you?---As for the date of the photograph, which is
29 what I think you asked me, as far as I could tell, it was
30 2014, according to the date on the bottom of the screen.
31 That was the best information I had at the time.

1 Okay. Then if we scroll down to figure 4?---Yes. I have used
2 much the same graphic, but I have labelled it so that the
3 progressive rehabilitation operation could be made quite
4 clear. With the coal area, obviously the darker area to
5 the left, being the current mine operations area.

6 That is the south-west area?---It is labelled as such, yes,
7 current operations area, to the right of that, on the
8 overburden stack, where the overburden was going, and then
9 above that is the mined-over area now rehabilitated.

10 Thank you?---And down to the right, if we go around, we see
11 there is a mined-over area, now rehabilitated, but it is in
12 a much earlier stage of growth. You see some of it has got
13 planting in it and some of it has just been topsoiled.

14 Thank you. You then, in your report, describe, in a little more
15 detail, the circumstances of the Hazelwood fire, which we
16 have already touched on. At paragraph 25 on page 6 of the
17 report, page 9 on the system, you conclude at 25, "In
18 contrast with Hazelwood, at no time was there such a tall
19 cliff of coal in the Anglesea Mine, let alone adjacent to
20 Anglesea township. Simply put, a fire of this nature could
21 never have occurred at the Anglesea Mine and the
22 circumstances that led to the inundation of Morwell by
23 smoke and fumes could not have occurred at Anglesea." And
24 that was the position even before the overburden strategy,
25 the covering of the coal, that has been implemented
26 recently, is that - - -?---It was the position as at the
27 time of the Hazelwood fire, yes.

28 So whilst at the time that Anglesea is an operating mine, the
29 differences are such that that is the conclusion you
30 drew?---Absolutely.

31 You say that is supported by the experience of Ash Wednesday,

1 which is the only real example in recent history that we
2 have of a significant bushfire in the vicinity of the
3 Anglesea Mine?---Yes.

4 How is the experience of the Ash Wednesday fire helpful in that
5 regard, in understanding this risk?---The Hazelwood fire
6 was started by a bushfire at Hernes Oak, which predictably,
7 in my opinion, was going to burn into the Hazelwood open
8 cut with the weather that was forecast, and indeed it did,
9 and the south-westerly change, fortuitously, came through
10 just as the flame front was about to enter the cut itself.
11 Otherwise it would have been quite a different and more
12 complex fire situation, but sufficient burning embers had
13 gone into the mine to cause extensive outbreaks. Those
14 burning embers had dropped over a very large area, right
15 from the south-eastern batters right around past the
16 (indistinct) works, right through all the open cut,
17 including the Morwell batters, and I don't think any of
18 that got into the western face, it was a subsequent fire
19 that caused them more grief. The fire came from the other
20 direction then and put embers into their current operating
21 area. But the embers I'm talking about are the ones that
22 caused the northern batters to ignite. It was the Hernes
23 Oak fire which bore in from Hernes Oak and changed
24 direction as the change hit, but in the meanwhile, there
25 had been enough embers to go into the mine to cause the
26 exposed coalfaces to catch fire and that fire developed
27 ultimately into the whole of the northern batters catching
28 on fire. The difference at Anglesea was you had a much
29 more intense fire on Ash Wednesday in actual fact than the
30 Hernes Oak fire. It actually burnt right through the mine
31 and the power station, it burnt all the vegetation, and you

1 had a fairly massive ember shower being propelled by the
2 wind after the change, which essentially would have been
3 the south-westerly wind - it was along the coast anyway -
4 and did we have the same situation that we had at
5 Hazelwood? No, we didn't. We had a lot of embers dropping
6 on the coal and I think there is two reasons for it. One
7 is that the mine is smaller, you could see where all the
8 embers were, for a start. I'm not sure of the workforce
9 numbers, but there were obviously sufficient people there
10 to put the fire out with sufficient equipment. And as I
11 read from the details available, the fire was properly
12 dealt with by the mine workforce. Now, that is a big
13 contrast. One, you have a hot fire come right through the
14 mine and drop embers everywhere and lighting fires on the
15 coal, which were then promptly extinguished. In the
16 Hazelwood Mine fire, you had the same - nothing like the
17 same intensity of fire. Sure, it was spotting, there was
18 ember throw into the mine, but a lot of those embers caught
19 and basically the mine workforce was fully committed to
20 putting out the fires that were affecting coal production.
21 They had to keep the base load generation going and the
22 policy of the company there had always been that it worked
23 out areas came second anyway, so they left that and as a
24 consequence of that, fire developed and we know the result.
25 So there is a clear distinction.

26 And those two experiences support that conclusion?---They do.

27 If I can turn then to the first specific question which you were
28 asked in the letter, and that is the specific manner in
29 which fire could arise from or impact on the Anglesea Mine
30 after 31 August 2015. In your report, you distinguish
31 between fires that could arise in the mine and fires that

1 could arise outside the mine but impact on it; is that
2 right?---Yes. I took that to be required from the heading.
3 Which in turn reflects the terms of reference and how they are
4 set out?---That's exactly right.

5 You're then asked the question what has caused the fires at
6 Anglesea before 31 August 2015 and you note that despite
7 the possible range of fires, at 29 you state, "The record
8 of fires suppressed at the Anglesea Mine shows a low
9 incidence of machinery fires and nil infrastructure fires.
10 In the nine-year period 2000-2008, 25 were recorded as
11 occurring on coal mining plant. None of these fires spread
12 to coal." This is from Alcoa data that you're able to
13 access?---Yes.

14 You then go on and refer to something of the fire history and it
15 is fair to say that there is a clear contrast, is there
16 not, between the history of fire at Hazelwood, and often
17 very significant fires, even preceding the 2014 fire, on
18 the one hand compared to the fire history at the Anglesea
19 Mine, which is, relatively speaking, quite minimal?---There
20 are quite a few fires caused by operational problems, shall
21 I say, to do with machinery, machine operations and the
22 like, which happen to coincide with a period of high fire
23 danger weather. There were numerous fires and they're all
24 pretty well catalogued, that occurred at the Hazelwood open
25 cut.

26 And several of them requiring significant input from the
27 firefighting agencies to suppress them?---Yes. That really
28 only came to a head with the last fire, though. The
29 cooperation with the fire services was much less extensive,
30 although it certainly did occur, yes.

31 If you can go over to page 11 of your report, page 14 on the

1 system. If you could perhaps address the figure first,
2 figure 8, before we look at the text. Figure 8 shows the
3 coalface on the western wall, which we know, from other
4 evidence we have heard, will not be covered as part of the
5 present overburden strategy?---Yes.

6 But that probably is a better photo to demonstrate what you were
7 talking to us earlier about, the overburden to coal
8 ratio?---It is indeed, yes.

9 We've heard various estimates of somewhere like 10-15 metres,
10 perhaps up to 25 metres, in height, the western wall. Does
11 that accord with your observations?---It does, yes. It can
12 actually be measured on a map that was supplied, but I
13 didn't go to that extent. I was happy with the general
14 description that was given.

15 It is clear even from that photograph that the height of the
16 wall is one thing but the height of the coal within the
17 wall is quite a different thing. In other words, because
18 of the overburden, we have got a - the coal only makes up
19 perhaps half, or thereabouts, of the overall height of the
20 wall?---Yes.

21 Going down the page there, the next part of your report
22 addresses the manner in which fire could arise from the
23 Anglesea Mine and you were asked at 47 how could a fire
24 start in the mine after 31 August and then you set out
25 statistics about the causes of bushfires generally in
26 Victoria in a table on page 12?---Yes.

27 And you then apply that broad range of ignition sources, if I
28 can call them that, to the circumstances at Anglesea and
29 you consider the existence of controls such as hot work
30 permits and the like. You then, at the top of page 17,
31 paragraph 65 - 14 of the report, 17 on the system - you're

1 asked if one of these fire-causing events did start a fire,
2 that is machinery, lightening and the other things that you
3 have examined, what would burn and how serious would the
4 fire be, and you narrow down the places in which fire could
5 arise as being the exposed coal on the western wall of the
6 mine, coal exposed when the overburden cover is disturbed
7 and vegetation within the mine boundary?---Yes.

8 So you're satisfied, are you, that the risk of - putting aside
9 the question of the overburden being disturbed, once the
10 overburden covering is in place on the horizontal coal
11 surfaces, does that effectively mean a fire occurring or
12 taking hold there is highly unlikely or is it - - -?---From
13 the overburden surface?

14 Yes?---Until such time as vegetation grows on it, yes.

15 Yes, so that's the concern there, if vegetation grows or if it's
16 disturbed through erosion, for example?---Well, vegetation
17 has a habit of appearing, when you make a space nature will
18 occupy it. You will see it in the ground, seed will blow
19 in especially in heath, and I would say before very long
20 there will be little seedlings popping up everywhere.

21 That's just a process you can expect when you leave exposed
22 earth especially on such a large scale. It's probably
23 somewhat dubious that it's going to cause any sort of fire
24 hazard in the immediate future but it's something that
25 needs to be monitored.

26 Yes, and that's one of the recommendations you make. If we just
27 focus on the western coalface, we have just looked at the
28 photo of that, you note at 67 that sections of the face
29 have been exposed for 28 years without any spontaneous
30 combustion events?---Yes.

31 And you note the intention of Alcoa to have a system of checks

1 to inspect that area, and on that basis at 69 you conclude:
2 "The probability of a coal fire occurring in the western
3 coalface is assessed as rare or very unlikely to occur and
4 the consequences would be insignificant"?---Yes, they would
5 be because I can never see under the circumstances that are
6 going to apply, I could never see any sort of development
7 of such a fire being allowed to occur and in fact, in the
8 three previous fires they have been extinguished very
9 quickly. So if there was any geological or geophysical
10 event that caused the fire such an outbreak would be
11 noticed probably before it got going and if it did get to a
12 secondary stage then I'm sure with the inspection regime
13 that's intended it would be coped with very quickly. So I
14 could never see the situation where any extensive face fire
15 would develop or any face fire would develop, and I think
16 the first sentence says it all, that, "sections of the
17 western face have been exposed for 28 years without any
18 spontaneous combustion"; so I don't see why we should see
19 any in the next 28 years but should such an event occur
20 there are provisions in place to deal with it.

21 Yes, so yet again history is a good guide - - -?---Risk is a
22 good guide.

23 Those terms you use which you have in inverted commas, "rare and
24 insignificant", they are terms that are part of the risk
25 assessment methodology you have employed?---I haven't done
26 a full blown risk assessment because of the shortage of
27 time and paper, but they are the terms that are
28 conventionally used and they are based on my own risk
29 assessment which I have done myself and it's based on
30 Australian Standard 4360 risk management, that's of 2004,
31 if you want to be up-to-date it's ISO 3001 which is much

1 the same thing only it has a lot more pages.

2 I will get you to flip over in that folder, behind tab 21 we
3 have that Australian Standard I think, I don't want to
4 spend too much time on this, is that what you're talking
5 about?---That's exactly what I was talking about.

6 Is there anything in particular you would draw our attention to
7 in it?---If you've got it so people can see it there is a
8 diagram in here on page 9.

9 HMF1.1004.001.0002?---That diagram on page 9, figure 2.1 is a
10 process I go through when I conduct a risk assessment.

11 It's either internal, in other words I do it in the mind or
12 I do it quite formally, you can do it on a scrap of paper
13 or take many scraps of paper but is it there? It's just a
14 protocol that works very well.

15 Figure 2.1?---That's it.

16 The specific page that was just being referred to is page 18 on
17 the system, page 9 in the Standard, is that right, page
18 9?---Yes, figure 2.1, that's it, little bit bigger, please.
19 The key part's there, well, we know the context, it's
20 basically Anglesea coal mine: "Identify the risks" is part
21 of the first step, the second step is to analyse the risk,
22 the third step is to evaluate the risks and that comes down
23 to the risk type or what I have produced in the report.

24 Yes?---Then the next thing you do is treat the risks which are
25 some of the steps I have suggested elsewhere.

26 So treating risks or controlling risks we sometimes hear of,
27 don't we?---Yes, that's the process anyway and the arrows
28 are all about monitoring and reviewing and communicate and
29 consulting.

30 Yes, thank you, I tender the risk assessment standard.

31 #EXHIBIT 24 - Risk assessment standards.

1 Going back to your report, Mr Incoll, that's the explanation and
2 those terms we see "where unlikely" and so on, wherever we
3 see them in your report they are derived from the
4 Standard?---That's right, and the parameters of them, I
5 have used the same parameters that were used in the Alcoa
6 risk management so there was no confusion about the
7 magnitude of the outcomes.

8 Have you had cause to compare your assessment of the risks of
9 these various fires to the one of the most recent Alcoa
10 risk assessment?---The most recent one is the - I have
11 looked at both, there's two that I'm aware of, one is in
12 the geotechnical report, the Mining One, the other one is
13 in Mr Rolland's report, I think, in an appendix to that,
14 and there is another one too in the supplementary report of
15 Mr Sharp, I did look at them all of course.

16 And certainly my observation, you can comment on this but
17 broadly speaking your assessment of the risk seems to match
18 up with the assessment in each of those other
19 documents?---Absolutely, of course they are in the position
20 of having a lot more information about what happens within
21 the operation so yes, but broadly speaking I have used the
22 same sort of frame of reference.

23 Then going back to your report at page 14, 17 on the system, you
24 refer to risks of fire in the coal following disturbance of
25 the overburden cover, once again you rate that as being
26 unlikely and you return to that topic when you talk about
27 recommendations for inspection and the like of the
28 overburden cover?---Yes.

29 Just while we're on the topic of the overburden cover, there is
30 a deal of evidence been given in the inquiry concerning
31 that depth of 1 metre?---Yes.

1 Do you have a view about that depth from the viewpoint of fire
2 protection?---I think I was attracted to the Mining One
3 analysis in the last witness' statement.

4 Mr Farrington's evidence, yes?---Yes, I think I couldn't improve
5 on that, it was an expert statement and I think he
6 expressed very clearly what the soil analysis was and
7 therefore what the various components ought to be and
8 therefore what the depth ought to be at Anglesea, he's an
9 expert in the field and I thought it was a very good
10 report.

11 Thank you. Then page 15, "fire in mine vegetation", and if I
12 can summarise this part of the report, paragraph 79 on page
13 16 of your report: "Whether a bushfire and vegetation
14 above buried coal could heat the soil sufficiently to raise
15 the coal to combustion temperature is answered in figure 9
16 which shows the surface heat generated by bushfires in heat
17 on forest vegetation is dissipated less than 75 millimetres
18 below the surface", so it's not surprising then that you
19 rate it as zero chance of coal ignition by a bushfire at a
20 depth of 1 metre, the heat just couldn't travel through
21 that depth?---None whatsoever.

22 Turning to page 18 of your report you address the risk or the
23 manner in which fire could impact on the Anglesea Mine and
24 essentially what we're talking about there is the Hazelwood
25 scenario of ember or ash attack coming into the mine, is
26 that right?---Yes.

27 You examine the history of bushfires in the area and you once
28 again make reference not surprisingly to the Ash Wednesday
29 fire, I want to ask you about what you say at paragraph 89
30 on page 19 of your report, you say: "The Ash Wednesday
31 bushfire is not the worst case scenario for the mine site

1 or Anglesea", is that because the impact on Anglesea
2 occurred after a wind change on a south westerly
3 wind?---Yes, it is referring to that diagram in figure 10.
4 Page 18 of your report?---Yes, that shows really - it says a lot
5 about the fire intensity, you can see the origin
6 interestingly at 14.45 hours or a quarter to 2 is at Deans
7 Marsh which is at the upper left-hand side where the dark
8 red blob starts.

9 We see the word "origin", 14.45?---Yes, 14.45 is the average
10 time and we see it arrived at Lorne at 16.18 which is
11 something like two hours later, 16.18, 18 minutes past 4.
12 So it's taken something like two hours to get from Deans
13 Marsh to Lorne, up one side of the hill and down the other.
14 Now, that can basically happen, any hot dry windy day a
15 fire like that and the reason it can happen is very quickly
16 within probably 20 minutes in most circumstances you get a
17 ground fire development, you get insuppressible
18 intensities, unless you're actually on the spot to knock
19 down whatever it is that started in the hot, dry, windy
20 conditions which of course culminate in code red weather,
21 which was the day like this, once the fire starts it stops
22 when either the weather changes or the fire runs out of
23 fuel which it did in this case because it hit the sea.

24 Ocean, yes?---Which is a good feature of topography around here,
25 you always have that fire break on the south side. Then of
26 course the wind change came through and we see the fire
27 proceeding up the coast. Now what happens when the wind
28 change comes through is roughly for the first two hours you
29 get something like the same fire behaviour occurring,
30 although you have quite often a drop in temperature and a
31 rise in humidity it's not absorbed by the vegetation

1 straightaway and consequently you can't really do much with
2 it until the wind does die down and the fuel moisture
3 content rises and then you can start to think about doing
4 something about it although there are other thing you can
5 do, that's by and large what I'm saying. But during the
6 time from the time the fire hit the coast until it had
7 passed through Anglesea it was insuppressible, but at the
8 same time it was dropping in intensity. What I mean by the
9 statement you pointed out, I note at page 89 is picking up
10 that dark red piece and just moving it up the coast until
11 the funnel part of the dark red piece is on Anglesea and if
12 you extend that out into the plains north of the Otways
13 you're somewhere like (indistinct). So if a fire starts
14 there on the same conditions it will come through the
15 Anglesea heath, particularly assuming there's no prescribed
16 burning been done, it will come through there at the speed
17 of an express train, it will be even faster than the - the
18 track from Deans Marsh to Lorne is pretty much high forest,
19 eucalypt forest, in fact there is ash forest in a lot of
20 it. But Anglesea heath is a much more extreme fuel type
21 than dry eucalypt forest and that would be a sight to be
22 seen, believe me. That fire then is the worst case
23 scenario and from there of course then you get the
24 southwest wind change, you get the fire tracking up to
25 Torquay. But the thing that's ameliorated that is the
26 prescribed burning.

27 Yes, and you address that starting at paragraph 93?---Yes.

28 And you note that: "Low intensity prescribed burning carried
29 out during mild weather reduces the amount of fuel", and we
30 know the Black Saturday bushfire Royal Commission
31 recommendations addressed that in some detail, and

1 paragraph 94 you note the DELWP, the current incarnation of
2 the old Forest Commission is responsible for fire
3 prevention and suppression on public land, you go on to
4 refer to the strategic bushfire management plan that
5 applies in the Barton Otway region?---Yes.

6 And I think we have a copy of that, if you look in the folder
7 where the risk management standard was behind tab
8 16?---That's it.

9 And the code for that is HMMI.1000.001.0001. And page
10 22?---Page 222 specifically talks about Anglesea and the
11 coal mine.

12 Page 24 on the system?---That's it.

13 That's where you derive the observations at paragraph 96 of your
14 report about the effect the planned burning has had reducing
15 the bushfire risk?---Well, not really; I think I made a
16 general observation on paragraph 93 is my observation about
17 below intensity prescribed burning, then the department - I
18 say the department's plan on page 96 says: "Planned
19 burning reduces the risk of bushfire impacting on Anglesea
20 power station by 60 per cent and reduces the risk to the
21 coal mine by 30 per cent." It says that in that blue
22 paragraph at the top.

23 That's right, you derive that - - -?---I got that from the
24 report, they don't make any observations about whether
25 there is a different risk between the power station and the
26 mine.

27 No?---There is no explanation or footnote or whatever, one's
28 left to speculate and I refuse to do that because I can't
29 think of what the grounds might be but they are using
30 phoenix rapid fire computer simulations, yes, I mean,
31 somebody said this morning it's a tool, that's basically

1 all it is. I mean, it looks very impressive but it is in
2 its foundational stages and the department quite freely
3 says that. If you look up the authors' statements about it
4 they are quite honest about the validity of some of the
5 outputs, and one of my major criticisms about the outputs
6 is they claim simulations by the programming indicate by
7 2050 there can be up to a further 10 per cent risk to
8 reduction to Anglesea. They are saying by 2050, and during
9 that space of time we would have 11 changes of state
10 Government and they're assuming they are going to get
11 policy and funding commitment from the each of those in
12 making that statement.

13 A big assumption?--Well, I had a minister in my time and I
14 think I had four ministers, one of those told me he hated
15 fuel reduction burning and if he could stop it he would, so
16 that was that minister's view and I imagine politics being
17 what it is, that things in the future won't be all that
18 much different and of course they are not always that
19 overt, they can simply change their preferences by altering
20 the funding of programs.

21 Yes. There is nothing else in the bushfire management plan we
22 need to look at, at this stage?---I don't think so, I mean,
23 no, I won't say any more about it.

24 #EXHIBIT 25 - Bushfire management plan.

25 Returning to the rather frightening worst case scenario you
26 described.

27 CHAIRMAN: Can I clarify, what you have done is give a mutual
28 comment in one sense about prescribed burning and then
29 reference to this material about which there is some
30 suspicion, is it fair to say overall you're very supportive
31 of prescribed burning and the potential for it being a

1 major factor while it continues in reducing the risk or
2 ameliorating - - -?---No question about that, Your Honour,
3 the last sentence in paragraph 98 I hope conveys that
4 impression.

5 Yes, "It has provided significant protection in the past and
6 will continue to do so"?---Yes, it will. In fact Anglesea
7 would be wide open to the worst-case scenario if that
8 prescribed burning wasn't carried out, and there is still
9 plenty of heath about which is in its native condition and
10 I guess the cycle of events is such that it will always be
11 so, but as long as it is interspersed with reasonable bouts
12 of prescribed burning, then the extreme risk is reduced.

13 If I can just wrap up this part of your report concerning
14 bushfire risk. If you turn to page 21 of your - - -

15 CHAIRMAN: There is always a risk with prescribed burning that
16 it will get out of control, but that, you say, is just one
17 of those things you make allowances for and it's really
18 just one of those things that weighs in the balance, that
19 there is a risk that sometimes prescribed burning will get
20 out of control?---Prescribed burning has got out of control
21 in the past. I have looked at - - -

22 Not only here but in other places?---I have looked at a number
23 of instances of it and, generally speaking, when you put
24 your finger on it, it should never have been lit in the
25 first place, but the pressure on people to get the work
26 done. Yes, I have to agree that there always is a risk it
27 will get out of control, but under the conditions that
28 prevail, even if they're at the top end of the prescribed
29 burning window, they will never be such that - or shouldn't
30 be such that you're going to have a lot of damage, except I
31 have to admit to a slight problem in Moggs Creek here when

1 I was chief fire officer when, unfortunately, some extreme
2 weather hit a burn and a number of houses were destroyed
3 and that was right at the end of the - it should never have
4 happened like that. The analysis showed that it wasn't a
5 well-conducted exercise and I'm quite sure that with the
6 safeguards in place today, that would never happen again.
7 But there always is a risk, I have to say.

8 Thank you. Sorry, Mr Rozen. No more interruptions.

9 MR ROZEN: Mr Incoll, if I can just go back to your report.

10 Underneath your figure 12 on page 21 of the report, you
11 make reference to the El Nino event and at 102 you note,
12 "Even so, a worst-case scenario bushfire, as described in
13 para 91", which is what we were just talking about, "is
14 unlikely to be experienced in the forthcoming fire danger
15 period due to the age and the extent of the prescribed
16 burning shown in figure 12 and therefore the likelihood of
17 a high-intensity bushfire impacting the mine during this
18 coming summer is considered to be rare or unlikely to
19 occur"?---That's correct.

20 That is your rating. And it is against that background that you
21 reach the final conclusion at paragraph 107, that is a
22 final conclusion about fire risk at the Anglesea Mine,
23 which is on page 23, as follows, "The analysis of fire risk
24 on the mine site after 31 August 2015 has indicated that at
25 the worst, a fire outbreak in coal or vegetation at the
26 mine after shutdown is unlikely and should an incident
27 occur, any risk of spread beyond the fire is
28 insignificant." Does that conclusion cover both the two
29 categories of risk we've been talking about, that is risk
30 of fire in the mine and risk of fire outside the mine
31 coming in?---Yes.

1 Thank you. So it is against that assessment of risk by you that
2 you then go on and consider the measures that have been
3 taken and that are planned to be taken by Alcoa at the
4 mine?---Yes.

5 And you deal with that starting at page 24 of your report. I
6 want to ask you about one specific part of that, which is
7 at page 25, under the heading Staffing and Resources. This
8 is a matter that you deal with in a bit more detail in your
9 supplementary report, in response to a letter from the
10 inquiry?---Yes.

11 You note at paragraph 114, "The company states that it will have
12 the resources required to provide appropriate site and fire
13 management knowledge in place at the mine following
14 cessation of operations. This is essential, as mining
15 operations personnel require a high level of site-specific
16 knowledge and expertise." You go on and consider the
17 proposals as set out in Mr Sharp's two statements for the
18 contracted security service, the equipment and the contract
19 resources to maintain and operate that equipment. Can I
20 ask you this: the evidence we heard yesterday expanded
21 somewhat on those plans and specifically, as you'll recall,
22 you were in the hearing room, we heard that Mr Rolland will
23 remain on site?---Yes.

24 That hadn't been entirely clear from the earlier material and
25 that is not a criticism of anyone. Is that significant
26 from your point of view?---I think so. It is very
27 significant to have an experienced and competent person
28 like Mr Rolland at the mine. I mean, that was one of the
29 questions that was going through my mind, to know that the
30 other current expert manager was going to be down at Point
31 Henry and, you know, what stood between - or what sort of

1 expertise would be in charge of any potential mine fire,
2 albeit the risk is insignificant, but if it happens, you
3 need someone that knows what they are doing in place and
4 all the monitoring and everything else that has to follow
5 to make the quality assurance - to deliver the quality
6 assurance that it is not going to happen and to hear that
7 Mr Rolland, with his years of experience and expertise at
8 Anglesea, was going to be there was a significant
9 bolster for the company's plans, as far as I was concerned.

10 Is it particularly important to have that level of experienced
11 supervision in place when a lot of the work is to be done
12 by contract people rather than full-time
13 employees?---Especially so.

14 Why is that?---The contract people come with a ticket, but they
15 don't come with, necessarily, unless they happen to be
16 ex-employees, which is another thing that crossed my mind,
17 the contract employees are simply competent to operate the
18 piece of machinery and can demonstrate a track record of
19 having done so and hopefully in the mining scenario, not
20 that there is anything particularly difficult, in my
21 estimation, about plant operations on that site, but if you
22 do get in an emergency situation, the first thing that
23 matters is competent management and then you want competent
24 operations. It is particularly important in the case of
25 contract employees. But obviously if they are the current
26 workforce, if there was any hope of that, then that is
27 another bonus.

28 And that is because they come with the experience and the
29 expertise from having worked there up until now?---They've
30 been there and done that, yes. They have even probably put
31 some of the small mine blazes out. But the main thing is -

1 and I think this was not the case at Hazelwood. In the
2 early stage of the mine fire, the senior management,
3 unfortunately, were all notable by their absence, all with
4 good reasons and all with knowledge of senior management,
5 but they basically weren't there.

6 Yes?---The mine workforce did a particularly good job of
7 stopping the mine catching fire, but as far as the
8 deployment to - the overall deployment and management of
9 the event just didn't really happen until well into the
10 afternoon.

11 Yes, when unfortunately it was too late?---Too late.

12 And it is with that experience in mind that you make these
13 observations about the value of Mr Rolland's
14 presence?---Indeed. The general case anyway, that you need
15 that whether it is a bushfire or a mine fire, you have got
16 to have that competence. It is really when it counts, when
17 it comes to the crunch.

18 Just so it is clear, you're giving the tick to that decision
19 about retention of Mr Rolland not just from the point of
20 view of addressing a fire scenario but probably more
21 importantly ensuring it doesn't happen by carrying out the
22 maintenance and inspection regime that is referred to in
23 the Mining One report?---I think I have used the term
24 "quality assurance".

25 Yes. Finally, Mr Incoll, if we can turn to page 28, where you,
26 under the heading Gaps or shortcomings in the framework for
27 mitigating the risk of fire, you make a number of
28 suggestions and recommendations, starting at paragraph 195,
29 and then you, under a separate heading on page 30, you list
30 measures that could be taken to address any identified gaps
31 or shortcomings?---That's correct. I was following the

1 instructions there.

2 Since you've provided your report to the inquiry, we've been
3 provided with a document which sets out in summary form
4 Alcoa's response to your recommendations?---Yes.

5 And that is Exhibit 11 in the evidence before the inquiry, and
6 it is Alcoa.0001.005.0002. Do you have a copy of that
7 document in front of you?---I don't, as far as I know.

8 We'll remedy that. It is behind tab 28, I think. There are
9 copies coming from every direction?---Thank you.

10 You have gone from zero to more than one now?---Thank you.

11 If we can go to the second page of this document, please. About
12 a quarter of the way down you'll see, Mr Incoll, a grey
13 horizontal hatched line and then underneath that you'll see
14 on the left-hand column 196, page 30, and then in the next
15 column, Rod Incoll report dated 21 July 2015. Do you have
16 that?---Yes.

17 As I understand this document, what then follows is each of the
18 recommendations you've made from paragraphs 196 onwards and
19 a summary of your recommendation and then Alcoa's response
20 and Alcoa's actions. Have you had the opportunity to go
21 through this document overnight?---Yes.

22 You have a response to each of the Alcoa responses?---I do.

23 In many cases your response is that you note what they say and
24 there is nothing further you wish to say; is that
25 right?---Generally speaking, I think they've satisfied the
26 main thrust of my issues. I can't now, of course - where
27 it talks about TARPs, which is - - -

28 Target action response plan, I think we have learnt?---That's
29 right. What the action response plan actually includes
30 because some of the action response plans aren't available
31 yet.

1 Yes?---Which is reasonable. So in terms of the timeframe that
2 they're announced to be available in, it hasn't come around
3 to that yet, so I can't know what is in them, but the fact
4 that they're producing something that deals with the issue
5 that I have raised gives me a sense of comfort in that
6 everything else they have said they'd do they have done up
7 to date, so I assume on that basis, that it is going to
8 happen henceforth.

9 Right. Beyond those general observations, are there any
10 specific matters that you would like to respond to now?
11 I'm not suggesting you should or you need to, but I'll give
12 you that opportunity?---Most of them are just ticked off as
13 something that - some of them are minor issues, some of
14 them are more important. They have all merged from my
15 analysis of the circumstances and there is really nothing
16 that I want to raise, given that the company continues the
17 progress it has demonstrated up to date. I'd be
18 comfortable that the end result will be satisfactory.
19 That is probably a very appropriate note for me to conclude my
20 questioning of Mr Incoll.

21 CHAIRMAN: Yes. Thank you, Mr Rozen. Mr Taylor.

22 <CROSS-EXAMINED BY MR TAYLOR:

23 Mr Incoll, good afternoon. Let's start with what I think will
24 be a relatively simple issue to clarify. Could you go,
25 please, to page 3 of your first report, Exhibit 22. I
26 don't have it. Our screen in front of me has died, so I
27 can't give you a number for that. You have got a table and
28 I just want to ask you to clarify the coal production
29 issue?---Yes.

30 Do you mean metric tonnes or is it mega tonnes per year?---Mega
31 tonnes per year.

1 Right?---Mega tonnes, yes.

2 I thought we might have been talking about wombats rather than

3 elephants at some point?---Thank you for that observation.

4 They are mega tonnes and that's not going to be a problem. Let

5 me see if I can deal with this all very quickly. As far as

6 the evidence you were giving in response to some questions

7 about, I think, equipment fires, I wasn't - you said there

8 had been a lot of equipment fires and I wasn't sure whether

9 it was clear whether you were referring to equipment fires

10 at the Hazelwood facilities or equipment fires at Anglesea.

11 I understand there haven't been very many equipment fires

12 at all at Anglesea, but that there have been quite a number

13 of them, certainly at Hazelwood?---I stopped talking about

14 Hazelwood early in the piece. The reference was certainly

15 to Anglesea and the source of my information was the

16 appendix to Mr Rolland's report, if I remember correctly,

17 where the instances are actually listed.

18 Yes?---And I have used those in this report. I simply counted

19 them and used them over a period of time.

20 I thought the figure that I heard was somewhat more than what

21 was given in Mr Rolland's appendice, but in any event, I

22 think we're on common ground that it wasn't the case that

23 any of those equipment fires had then translated into a

24 coal fire?---No. They are equipment fires, but then again,

25 there were coal fires.

26 I accept that?---I found a source for that, and I gave the

27 number and they were quite distinctly coal fires.

28 And I don't think it is controversial that they were dealt with

29 internally by the crews and effectively?---Exactly. Most

30 of them didn't get past the first stage, but they are still

31 an indication of the amount of spontaneous combustion that

1 is involved with that class of coal.

2 Yes?---Which is what I was aiming to do.

3 I think we're all on common ground there. And as far as the
4 evidence that Mr Farrington gave before lunch, just
5 encapsulating your position with that, you are in furious
6 agreement with the conclusions he's expressed about the
7 overburden, the balancing necessary and the general risks
8 that are involved?---Yes. I found it very interesting and
9 an expert dissertation on all of the issues that were to do
10 with the - - -

11 I'm sorry he is not here to hear that. I'm sure he'd be
12 delighted. Can we go to your second report, your
13 supplementary report, which is really the staffing
14 issues?---Yes.

15 What you had to work with, I think, there was really some
16 outlines of proposals that were contained in Mr Sharp and
17 Mr Rolland's and largely you were given otherwise a clean
18 sheet to express a view about what might be a structure
19 that would achieve certain results?---I think it was really
20 about putting some dimensions on the numbers that were
21 going to be there after closure.

22 Exactly. Can I ask you to have a look at paragraph 36 on page
23 12. It commences, "Alternatively". You're speaking there
24 about a couple of options that were set out over the page,
25 I think in table 10?---Yes.

26 There you say, "Alternatively, in view of the generally
27 non-urgent work likely for plant operators, a short notice
28 availability, whilst geared to a mine fire alert, would
29 provide cover for the level fire risk anticipated at the
30 mine. This is included in option 1 on table 10"?---Yes.

31 You were here yesterday as well and you heard Mr Rolland give

1 some evidence that certainly I could be trained to carry
2 out the spotting activities necessary to identify it. He
3 wasn't quite so sure about whether Mr Rozen could be, but
4 as a general proposition?---Yes.

5 Do you accept that that is the sort of training, providing it is
6 properly delivered, that over time and we're not talking
7 here about simply qualified people leaving so it and
8 unqualified or untrained or inexperienced people
9 necessarily taking straight over, but that is a skill that
10 can be readily acquired and that can be implemented?---In
11 fact, what I did in that regard, just to enlarge on what
12 you say, and I agree it can be done, in paragraph 20 I
13 identify the competency that contains the elements needed
14 to do that work.

15 You did?---And then I said later in the piece that in fact I
16 didn't see why the security people couldn't be trained to
17 do it, just trained and accredited to do it under expert
18 supervision.

19 And I think you have heard now that there will be expert
20 supervision?---Yes. That would be where the training and
21 accreditation would come from and as far as I'm concerned,
22 that would be a perfect method of eliminating that risk.

23 Alcoa has already a security contract with one company and there
24 was put to the board yesterday, through Mr Sharp, what it
25 was that was proposed in terms of letting a contract, and I
26 don't need to take you through all of that, but in terms of
27 general numbers of people, and you and I had a brief chat
28 about this, on duty on each particular shift, given that
29 we're not running an operational mine and also I think it
30 is fair to say you wouldn't be expecting to send people
31 down into the mine, even rehabilitated, in the middle of

1 the night?---Absolutely. Nothing to do.

2 Yes, nothing to do. There is room for some flexibility about
3 numbers on shifts and who might necessarily be on the night
4 shifts and the level of supervisory checking that they
5 might be involved in, would you agree with

6 that?---Certainly, and I think subsequent to our brief
7 chat, I gave it some more thought and as far as I'm

8 concerned, the only real need for a night shift would be
9 when the weather conditions were such that the fire mine
10 alert had been exceeded, and that might happen on one or
11 two days a year. And as far as the rest of the night
12 shifts are concerned, that is up to Alcoa for Alcoa's own
13 purposes, which would be probably site security.

14 More than necessarily other considerations. There is just one
15 other matter to double-check. At paragraph 72 of your
16 initial report, page 14 of the hard copy of that document,
17 Mr Incoll, "Notwithstanding the worst case, assessment for
18 the risk of a coal fire in the mine after closure is
19 unlikely. The risk will only be reduced to zero when all
20 the coal is covered with a stable layer of earth that has
21 been re-vegetated." Effectively, we're talking about -
22 there what you're speaking of, I want to suggest to you, is
23 the complete remediation of the site?---That is it, the end
24 of the rehabilitation project and how many years.

25 Thank you for your assistance. That is all I have for

26 Mr Incoll, if the board pleases.

27 CHAIRMAN: Nothing more, Mr Rozen?

28 MR ROZEN: No, nothing further for Mr Incoll.

29 CHAIRMAN: Thank you Mr Incoll again. We appreciate it. You're
30 excused.

31 <(THE WITNESS WITHDREW)

1 (Witness excused.)

2 MR ROZEN: That concludes the evidence that I intend to call and
3 I haven't been asked to call anyone else by any of the
4 parties, so that therefore concludes the evidence.

5 CHAIRMAN: I'm not addressing anything to you particularly, but
6 you may as well stand, on the basis I'm used to having
7 somebody stand, but I make some remarks of this kind. I
8 will address this to those who are present from Anglesea,
9 in other words the locals, and say that this ends the
10 component of our hearings process that will be at Anglesea,
11 but there's been some discussion as to the position in
12 relation to how one brings together what lawyers call
13 submissions, the evidence.

14 There is a dilemma in what I say as to counsel
15 representing Alcoa and the State in that in short, I don't
16 want it to be detailed submissions because I don't think
17 the nature of the hearings has been such that calls for
18 detailed submissions and the fact that Mr Attiwill's name
19 appears in the transcript, as little as it does, to some
20 extent reflects that and Mr Taylor hasn't had to get to his
21 feet that much more, but if I simply say to the people of
22 Anglesea, to come back to you, the plan is to have
23 submissions next Thursday at 11.00 in Melbourne. It will
24 be relatively short and you're invited to come to
25 Melbourne, but only if you're so intensely involved, if you
26 like, that you really want to see this part of the process
27 finish. The transcript of what transpires, what is said on
28 that day, will be put on the website, so you'll be able to
29 see what emerges from that.

30 We are thankful for the people of Anglesea who have
31 come along and listened because one of the important parts

1 of this process was to have people give their evidence and
2 be tested, to the extent that that was appropriate, in a
3 way that enabled the locals to get some idea of what the
4 focus was and what information would emerge from those
5 various witnesses, so we thank the people for their
6 hospitality while they have been here and their
7 participation and the local businesses and organisations
8 that have made the hearings possible.

9 We are going to have the final session, but it will
10 probably be a relatively short session, next Thursday. I
11 don't know that I can say anything much more to Mr Attiwill
12 or to Mr Taylor. I expect Mr Rozen to be reasonably full
13 in what he says to bring it together, to then submit it to
14 you so that you can consider what further things you think
15 he may have omitted or that may need some elaboration, but
16 it is not the kind of situation where we're looking for a
17 great deal of elaboration on matters that have been raised.

18 I won't invite questions because you may embarrass me
19 by asking the more difficult ones, but I'll leave you to
20 liaise with Mr Rozen if there are matters arising from what
21 I have said that you think would be appropriate to have
22 discussed further, but as I have said before, this is a
23 somewhat unusual situation.

24 The other dilemma, if you like, is what is the
25 cut-off point? And I think the cut off point is today. I
26 know there are meetings next week and we will have to
27 address the question of do we simply have a report that
28 brings together the Anglesea material or do we, in the
29 final report, give a recap on what's happened in between.
30 I'm not sure, given the terms of reference, what is
31 appropriate, but that is a matter that we'll still have to

1 address, so there's still some issues that will have to be
2 considered when we get together at an appropriate time, but
3 at this stage I will again thank the people of Anglesea and
4 thank the body of people in the earlier part of the hearing
5 routinely for what I think has been a very positive, very
6 constructive session of two days.

7 ADJOURNED UNTIL THURSDAY 6 AUGUST 2015