Royal Commission on the Pike River Coal Mine Tragedy

Te Komihana a te Karauna mōte Parekura Ana Waro o te Awa o Pike

UNDER **THE COMMISSIONS OF INQUIRY ACT 1908**

IN THE MATTER OF **THE ROYAL COMMISSION ON THE PIKE RIVER COAL MINE TRAGEDY**

Before: The Honourable Justice G K Panckhurst
Judge of the High Court of New Zealand

Commissioner D R Henry

Commissioner S L Bell
Commissioner for Mine Safety and Health, Queensland

Appearances: J Wilding, S Mount and K Beaton as Counsel Assisting

S Moore QC, K Anderson and K Lummis for the New Zealand Police

K McDonald QC, C Mander, T Smith and A Boadita-Cormican for the Department of Labour, Department of Conservation, Ministry of Economic Development and Ministry for the Environment

N Davidson QC, R Raymond and J Mills for the Families of the Deceased

S Shortall, I Rosic and D MacKenzie for certain managers, directors and officers of Pike River Coal Limited (in receivership)

C Stevens and A Holloway for Solid Energy New Zealand

N Hampton QC, R Anderson and A Little for Amalgamated Engineering, Printing and Manufacturing Union Inc

G Gallaway and J Forsey for Mines Rescue Service

G Nicholson and S Gilmour for McConnell Dowell Constructors

P Jagose for Valley Longwall International Pty Ltd

F Tregonning for Pike River Coal Limited (in receivership)

TRANSCRIPT OF PHASE 1 HEARING
HELD ON 13 JULY 2011 AT GREYMOUTH

COMMISSION RESUMES ON WEDNESDAY 13 JULY 2011 AT 10.02 AM

WITNESS ON FORMER OATH

CROSS-EXAMINATION CONTINUES: MS BEATON

Q. Dr Newman we have the diagrams that you were taking us through yesterday. I think you're going to give us a very quick refresher about that -

A. That's right, very quick review -

Q. - and before we're going to move on.

A. – and then we can go on. So we talked about the different elements in the geology which are going to be part of the explanation of the importance of stratigraphy and this, as I said, is a very simplified picture of the geology but it serves to illustrate a particular kind of stratigraphic complexity which I think is important in the context of the Pike River Mine so we have the overburden, the main seam, the green to represent the peat accumulating environment and we talked about the peat being the source ultimately of the coal so this depicts the time when the peat was being deposited. These sand bodies are deposited half way through the life of that mire and are buried in more peat during the second half of the life of that mire. The overburden is pink here, I haven't differentiated that to show the Rider seam or the interburden but we'll talk about those when we have another cross-section. The important point here is that at the end of peat accumulation these sand stone bodies are strings which are isolated within the coal and I said that at the moment we're not clear of the exact location and extent of some of those strings. I think we can go to the next figure which is –

Q. – which is your cross-section. Is that right?

A. Yes.

Q. Which is?

A. NEW0016.

Q. Yes, thank you.

A. Okay so here we're looking at the pit bottom area up to the escarpment that we saw as photographs yesterday.

Q. Right and the escarpment is at the left-hand side, top left of the cross-section.

A. Yep, so we got west here and that escarpment was in the photos. It faces out towards the coast and you see the coal measures well exposed. The area here we call the dip flow or down dip area. This is all concealed under the overburden. The only way you can find out about what is there in the coal measures horizon is by drilling. We're going to talk quite a bit about drilling shortly. Now if we start here in the east we've got the Gneiss rock, that's the crystalline basement rocks, they are older rocks and this redline is the Hawera thrust. That's a fault where the old rocks have been pushed up on top of the younger rocks. There's a major displacement there, an uplift of about a kilometre. The pink or red there is the island sandstone. We saw that in the bluffs. The pit bottom I've shown in a simplified way. We've got the yellow is the underlying Paparoa coal measures, the Brunner main seam is this thicker black line here.

1005

A. The Rider seam which I said yesterday that is the last gasp of peat accumulation at the end of Brunner coal measures deposition. That's a thin seam which is discontinuous and that separates the Brunner coal measures from the overburden, the island sandstone, so that's a sandwich there. This area I haven't tried to show because the structure is so complicated I would have had to make it up so I've just left it unclear. So, I'd like to talk about the yellow for a minute. The Paparoa coal measures are those thick bluffed sandstones with some seams in the lower part which are discontinuous. When you get up towards the

top of the Paparoa coal measures they are rather distinctive, grey, gritty sandstone rock. They are not distinguishable on their lithological appearance from the Brunner coal measures sandstones which in places occur beneath the Brunner seam.

Q. Just pause there. You said the word lithological, I don't think you've told us what that means yet?

A. No, the lithology, that word means the composition of the rocks. Now, in the case of the sandstones it could refer to their texture, a gritty sand is a coarse granular sand, it can also refer to the composition but that's more of a micro-structural geochemical thing. So, I'm talking about the physical appearance of the sandstones and other rocks when I say lithological.

Q. Thank you.

A. So the appearance of the sands at the top of the Paparoa coal measures is not distinct from the appearance of the sands at the base of the Brunner coal measures and that means that by looking at those rocks we can't say where the Brunner ends and the underlying Paparoa coal measures begin. Now, that's important because when you're trying to define the geology you are basing that on the appearance of those rocks. So, what I'm saying here is we don't know where the Brunner stops and the Paparoa starts. Now, the lenses of sand that I've shown in the main seam here, and this one I talk a little bit more about in a minute, that one isn't definite. This one here in drill hole 25 is certainly definite and there are other places where there are these sand lenses within the main seam. These have resulted from the streams that ran through the mire which was the figures we saw right at the start.

Q. Just to orientate us, you're referring to the area that you've circled and marked B. Is that correct?

A. Yes I am, yes. This will get clearer when we start with the display but the important thing here is you'll see I've coloured those sand lenses within the Brunner main seam yellow, the same as the underlying rocks and that is because visually they are not distinct. So, that's a very important point. Now, the other things that we can see on here are the

Rider seam and the interburden here, so you've got a coal sandwich with the interburden in between.

A. Yes.

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Q. And on the cross-section you were pointing to the area close to the M3 drill hole?

A. Yes. M3 is where you have a well defined interburden, not far away in the escarpment you have a thick main seam and apparently no interburden. So you – the other thing this cross-section shows is that there is considerable variation from place to place in the detailed arrangement of the sediments and the coal and as we defined yesterday variations in thickness of the main seam. Variations in the relationship between the coal and the associated sediments, they are what we call the stratigraphy of the deposit. And the faulting, which has resulted from mainly the uplift event which has brought this coal measures back to the surface, we call that structural development. So we've got structural complexity and we have stratigraphic complexity. The stratigraphic complexity results from the time when these rocks and coals were actually being deposited. The structural complexity is later when the deformation has occurred during uplift. We'll come back to those concepts a bit later. The way I've drawn this, we have got vertical exaggeration, we talked about that yesterday. When you're interested in a relatively thin interval of 10 to 20 metres, if you were to show that interval at the same vertical scale as horizontal scale, you do end up with a very thin line on the cross-section and you can't show within that any stratigraphic detail. Now that is a problem because if you don't show it people will not necessarily be aware of it. You have to graphically represent these complications, especially when the diagrams are going to be used by mine operators who are technically mining people but don't have the geological background. Things that aren't shown on plans can disappear unless you go right back to the original data. So the vertical exaggeration here it's not extreme, it's about I think three times the horizontal scale. So, what I want to do here is contrast

these two situations by means of this physical display. Now, I said I would come back to drill hole 8, I will do that with the display but I want to say here, where I've shown thick coal, interburden and a Rider, I have assumed that is the situation there based on the geology and the north and south. As you can see we've got at least 600 metres of distance between drill hole 8 and drill hole 25 with no information at all. So, that is one of the things that I'm referring to when I say the definition of the geology is sketchy. Six hundred metres is a very long distance when you have these kinds of stratigraphic complications.

Q. And to your knowledge have there been any more drill holes in between that distance between drill hole 8 and 25?

A. I'm confident there haven't.

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Q. So just perhaps if we let everyone know what you're discussing.

A. Yes. So because I want to bring this geology sufficiently to life to flesh it out enough that people will really understand the situation I've got a three-dimensional display which I will build up progressively. And this I hope will allow me to discuss the merits of vertical drilling versus inseam drilling when you are in a stratigraphically complex situation.

Q. Now when you do this I understand you're going to have hop up off your seat?

A. Yes. Now the people who are going to look at that screen, and I think a lot of people in this corner are probably going to be, you'll have to remember that, I think, that things will be transposed. You'll be seeing really a mirror image so the stacks are going to be actually the wrong way round in relation to this cross-section.

Q. You're going to create a stack for .A and also one for .B. Is that right?

A. I am. And I'm going to orient them with A on the left and B on the right?

Q. Yes.

A. For clarity. But I don't think that's how it's going to look on that screen.

Q. That's okay, thank you.

A. So if I don't have the microphone close enough someone will tell me. So we're going to start with the Paparoa coal measures. So this is

stack A. So at A and B the Paparoa coal measures are the same and the next thing that happens here is we're going to start with the coal seam. So at both of these locations we have the first phase of peat accumulation and they still look the same. Now this is where we start to have a change because on the side for B we have now a period of stream definition in the mine. So we've got a stream channel that we had in our pictures finding its way through this vegetated mire and depositing the sand (inaudible 10:16:21). We don't have that in A. The next thing that happened is the second half of the deposition in the upper part of the seam and that happens in both locations, Neville's definitely got the idea. We didn't practice. Okay so on A we have a situation that most people are familiar with. Paparoa coal measures are thick seams and we're going to move into the interburden. On the other side here at B it's not like that. We've got Paparoa coal measures and the Brunner seam is split by a sand body. Now the thickness of these intervals is not to scale, it's determined by the sizes of the boxes.

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Q. Yes.

A. So we have sandwich there at B and now we'll go with the interburden so you'll remember we talked about the interburden. This is the interval of sediments that separates the Rider seam which you can see in the cross-section. The Rider seam is the thin seam at the top of the Paparoa coal measures and it's represented by this thin black line.

Q. Do you mean the Brunner coal measures then or the Paparoa?

A. What did I say, Paparoa?

Q. You said Paparoa.

A. Thank you (inaudible 10:17:54), I just mean the Brunner. Now often when we have this sandstone split within the main seam as at B, we commonly do not see the Rider seam. I have left that out here but we do have it here, and finally we have the overburden. So this is our island sandstone.

MS BEATON ADDRESSES WITNESS – RE MICROPHONE

CROSS-EXAMINATION CONTINUES: MS BEATON

A. With this demonstration I can illustrate for you the importance of the vertical drilling. This is my drill rig here. Now this is a relatively complex situation. This is not so complicated. With a vertical drill hole you are coming down through the succession from the top so this provides you with stratigraphic context. You know you've drilled through the island sandstone. You may or may not see the Rider. You go through the interburden into the top of the Brunner seam so you know where you are stratigraphically because you've been through those units. You continue down through the, in this case the sandstone split within the main seam. The one place that you could go wrong here is by stopping your drill hole below the coal in that sandstone bed. You'll remember that it's not possible to lithologically distinguish the sandstone interbed within the main seam from the true floor under the main seam. There's a possible in some of the earlier drill holes particularly drill hole 8, that the drilling stopped within a sandstone parting, within the main seam and if the drilling had continued we may have found more coal underneath, so that is one of the things that has concerned me about drill hole 8.

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A. This came out in the report that I did in 2008. I recommended in my stratigraphic model report in mid 2008, that drill hole 8 be extended. You can either re-enter the drill hole sometimes or if that's not possible then you continue on from a new site, just not far away. I don't believe this was done, so we still don't really know, as far as I'm aware, whether there could be some coal below the end of drill hole 8. So, that aside, in most cases the vertical holes have drilled far enough that you can be sure the whole Brunner succession has been located. The stratigraphic complexity is taken care of because you know you've been through specific geological units as you drill down. So, this is where I'm going to talk about the inseam drilling. Now, if we could put up for a little while, I think it's PW54.

Q. And again that's an exhibit or annexure that's been provided by Pike River coal via Mr Whittall's submission?

A. Yes, that's right. Now, this illustrates the nature of inseam drilling. I think we can assume that in fact on this left hand side there was coal seam developed and that they have drilled from workings within coal here. For the purposes of our discussion we will assume that. They have drilled through rock here and then into the coal seam on the other side and there was a description of inseam drilling yesterday where on the way out you drill and find the roof and on the way back you look for the floor. So, on our model here we will be coming from this side, drilling through coal and then in between here we've got this zone of structural complexity so we're drilling through a zone where we don't really know what's going on into rocks on the other side. The thing about inseam drilling is that you can drill from a single thick unsplit seam into for example, the upper split where you have the main seam cut by sandstones. Now, if you're not aware that you have a lens of sandstone within the seam and you do inner seam drilling into the upper split or indeed the lower split, you may completely miss the fact that you've moved into a two seam situation, particularly as these sediments that are splitting the seam look the same as the sediments that form the true floor. So, this construction is to try and demonstrate the difference between the vertical drilling and the inseam drilling. Obviously this is important. There is a general agreement that there are not a lot of vertical holes in the coalfield. Can we go back to the cross-section please?

Q. You're talking specifically about Pike River coalfield?

A. Yes.

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Q. So we've gone back to the cross-section NEW0016?

A. Yes, so there's been a discussion in the last two days that the vertical drilling was the first stage of exploration and that to get new and more detailed geological information the company would use inseam drilling from within the workings. What I'm trying to demonstrate here is that

inseam drilling, when you have stratigraphic complexity, does not give you the same reliable information that the vertical drilling does. Another thing about the drilling, there were a number of holes put down vertically or from the surface since 2006 when the Golder's report was written. Now a significant proportion of those were actually in the Gneisses over on the right, they were to help when the stone drive was being constructed. So those did not provide information on the structure and stratigraphy of the coal measures themselves. Another point that possible didn't come out is that quite commonly two or three holes would be drilled from the same site, but at angles. So, they are still distinct, two or three holes, but because they're from the same site you're not really sampling the same area that you would be if they were separately sited. You're still seeing different things with angle holes, but there's obviously a limit to the lateral coverage that you can get that way.

Q. Is it your understanding Dr Newman that that's what's happened at Pike River since 2006?

A. Yes, it was – when you're trying to minimise site development, now this can be for budget reasons, it's – with helicopter drilling it is obviously cheaper and quicker to drill multiple holes from the same site, but also because of the desire to minimise environmental impact it's probably easier to get permission to drill from a specific site than to go after permissions for three distinct sites. Now, I'm just being absolutely fair here to the company, I'm not saying that I think the Department of Conservation made it difficult to site holes in three different locations. I'm simply pointing out as I think the company would, that that was sometimes part of the reasoning for where sites were put and how many sites were developed.

Q. Just on a slight side issue there, what is the environmental effects of these drill holes?

A. There is a certain amount of clearance required. We're not talking about the clearance you need to bring in a truck mounted rig, not making trackways, that's very destructive, these are all helicopter

supported sites, all the equipment is bought in by helicopter. So you are required really just to create a level cleared area which is perhaps sometimes only half the size of this room actually or less in fact. I know from talking to Jonny McNee that Department of Conservation were always very grateful if you could be flexible as to exactly where the hole was going to be sited. So if you could move it 20 metres from where you originally planned then you might save a couple of big rimus and this was, this was welcomed by Department of Conservation and if they could see you were prepared to make that effort then they were correspondingly co-operative when you needed a little bit of come and go.

Q. Okay thank you.

A. So, there is this concern that I have and I think that any geologist would have, that when you have stratigraphic complexity inseam drilling is not well designed to identify that. Now this is particularly the case if you are not clearly aware that your coal seam has got the sandstone bodies within it and I am not confident that the company was aware of these as a potential complication within the immediate mining area. Now I won't put up any mine plans, but by the time of the explosion, based on mine plans that Mr Whittall has put up onto the website, the workings had extended beyond the zone of structural complexity, past hole 8 and up a good proportion of the distance to drill hole 25, where we know there is definitely one of the sand body's.

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Q. And what we don't know is how far that sand body extends?

A. Yes, and also, based on drill hole 34 and others I think it's probable that there are actually a number of these sand bodies. I don't think it's the same one everywhere, I think these streams that flowed through the mire would have been things that you would get in different parts of the area and probably at different times. I think there's one quite near the floor in drill hole 34 as I mentioned yesterday. There's a tendency when you find complexity, either in the mine workings or in a drill hole it is common for operators to interpret that as faulting, as structural

complexity. Stratigraphic complexity is not usually the first thing that comes to mind. I put in my submission stratigraphy tends to be done poorly even by geologists. And an important point here is that geological personnel and the mine engineering technical operations personnel once Jonny McNee had moved on, from offshore, key people were from South Africa and they had a background in minerals mining, not coalmining. This, I think it is evident, would put them at a disadvantage when trying to visualise the kinds of stratigraphic complexity that I'm describing here. The other thing which is important to note is it isn't just that you may have a background in something which is not coal related. If you have trained, for example, in Australia you will have a different perception of what is possible in terms of stratigraphic complexity or what is likely, you will have a different perception than if you have trained on the West Coast. And that is because the scale of these lateral variations is quite different. In a continental area, within the Australia coal seams you do have complexity but usually something like sand channels, they will occur more widely spaced, they'll be more obvious. I think to explain why the scale of these things is different in the two countries I would need to put the microphone down and start making shapes out of pieces of paper and talking about geological basins. So I'll just leave it there.

Q. Yes.

A. The geology in Australia is very different.

Q. Thank you.

A. Yes. And this has influenced quite a number of those professional reports that we heard about yesterday. They were written by people who were familiar with coal geology in Australia and not on the West Coast of New Zealand. That's a really important point. So I think we can probably take those boxes down and I'll get back in the seat, thanks Neville.

LEGAL DISCUSSION (10:34:20) **– STACKS RECORDED BY WAY OF PHOTOGRAPHS**

CROSS-EXAMINATION CONTINUES: MS BEATON

Q. So Dr Newman you want to move, I think, onto another slide. Is that right?

A. I do. I'd like NEW0014, figures 4A and 4B please.

1035

Q. Yes, I think that's page 3.

A. If that can be just a wee bit bigger?

Q. Do you need both at once or one at a time?

A. I can do one at a time if that's the only way to make it larger and I'm thinking people looking across here are not going to be able to see very much but if it's easier just to have A that's fine. Now, the colour schemes here relate back to the first set of diagrams that we were looking at. I haven't tried to show the Rider and the interburden, we've just got overburden above main seam to keep it simple. The coal seam is the grey and I've shown the underlying sediments as purple, so really we're just focusing now on the coal seam.

Q. Yes.

A. This lens here, that is to represent the sandstone lenses within the seam that we've been discussing. Now, I have to say here that these are hypothetical situations, I'm producing these as an example of the kinds of things that can happen if you have stratigraphic complexity that you're not clearly aware of or have not adequately defined, and I think to define some of these things you do need a lot of vertical holes. So, we've got this area here which would correspond to that zone of structural complexity that we've talked about where –

Q. For the record you're talking of the vertical area between the two green lines which represent faults presumably?

A. Yes, these are faults. This is a diagrammatic representation though not specific faults they really serve to confine the central zone of poorly defined geology, possibly overburden, could be coal measures from underneath. The important message being that the coal seam is not present in this site so if you mine through in the seam and then you've got to go through a zone like this, which is not well understood, and then

you come out on the other side. If one of these sandstone lenses is present and you have not realised that this sandstone body is a parting within the seam, if you have assumed, as is very likely, that really what that is is the true floor, if you have assumed that incorrectly then you will be mining along the top of this sandstone lens and eventually it will wedge out. I'm not saying that this is necessarily what happened at Pike River. This is just an example of potentially what can happen. There's debate about how hazardous that would be but there is the possibility of gas trapped in this un-drained area under this false floor potentially being released in an outburst. Purely a hypothesis. So, if we could have B. In this situation I have hypothesised that you've mined through this poorly defined zone and you've actually mined through on the other side into the lower parting of the seam, the lower half of the seam. In that case the sandstone lens become effectively the roof of the workings. If you have not realised that there is the other half of the seam above that sandstone lens, and you may not realise that based on inseam drilling, you can have problems with roof stability, pieces of roof dropping out. I won't go too much into that because really I'm not strictly a mining geologist. My expertise is in being aware of the stratigraphic complexity so I won't develop that.

Q. Just though can I get you to clarify the two red lines that we see on figure 4B. Are they there to represent an area which could be, as you've suggested, a roof fall or similar?

A. Yes. If you get these kinds of sandstone bodies which are isolated within the coal they can have considerable sheering. There may be faults that are not visible in the true roof and floor. Often some of the structural deformation around these lenses is quite an early feature. This relates to differential compaction in the early burial stage, so you can have a variety of structural weaknesses that maybe quite difficult to pin down.

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Q. Is there a possibility of this potential gas outburst in this example by the time the miners get to the end of the sandstone when it joins the roof?

A. Really at any point when you're under a lens of rock like this, whether you know it's there or not and you may well not, there is a risk of blocks of roof dropping out and releasing gas. Now this is really, as I've explained it, rather a simplistic description there will be people who can talk about this more authoritatively probably in phase three when consideration of gas and other factors comes up in more detail, people like Dr Cave. So, I'd like to now relate this to the question of safety. When you have, as on the West Coast, both this stratigraphic complexity which is just a very simple example here, combined with the structural complexity which is the faulting that we've talked about, the two things together, one superimposed over the other, the structure superimposed on the stratigraphic complications, this doesn't just double the complexity it increases the complexity by several times because of the way these things interrelate. If you don't know what the stratigraphy is then you cannot interpret the structure. If you are thinking that all of the anomalies you encounter in your drilling and mining are essentially related to faulting, you will not have the correct story. You will not have the correct picture because any interpretation which is 90% structurally based and ignores stratigraphy it cannot be correct. So, this is not specifically a comment on Pike River, all the West Coast underground mines have these issues. Obviously when you have complexity like that, underground mining is inherently dangerous. There are ways to mitigate those hazards and a very important way is to fully, as far as possible, fully understand the geology. I do not personally believe that it is possible to define the geology accurately and in detail with the drill hole coverage of whatever type that was available for the workings area.

Q. At Pike River?

A. At Pike River. This has sometimes been true in other mines. Gradually over the last couple of decades it has become clear at how much drilling is required to pin down geological complications and we did hear about that from Mr Elder, from Dr Elder sorry. I – in terms of how likely it is, that you may not realise that, for example, you've mined into a split

seam situation, these kinds of things have happened before. I think Mr Bell will remember that in the original Strongman mines, Strongman 1and I may get the seam names slightly wrong, I heard this story actually from the chief mine surveyor Frank Taylor, who helped me when I did my original sampling in the Strongman 1, which was about 1980. In the Strongman where there are faults on one occasion they mine through a fault, they didn't immediately realise this because they had mined from one seam into another seam which is 20 to 30 metres separated within the sequence, but the throw on the fault was just right that it juxtaposed these, these two seams together. As they mine straight from one to the other it was not at all obvious what had happened. So these things, these things can fool you, and I think that the stratigraphy in those two locations is similarly complex. I could go on a little bit maybe about my concerns about the safety issues.

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Q. Does that relate to the period of time from 2008/2009?

A. Yes, and as time progressed, as I have mentioned and is in my submission when asked questions by company geological staff sometimes by people, not strictly geology I think but more into the technical operations. Pieter van Rooynan and was one person, also Jimmy Cory, and they're sub-contractors in CRL and I think other geotechnical organisations I would often field inquiries relating to lithologies and stratigraphy and would always have at the end of my answer in emails that this answer is only as good as my model as I have said in my report and in subsequent communications the model is untested.

Q. You're referring to the report you gave to Pike River when you were engaged by them in 2008?

A. Yep.

Q. It was a two phase proposal as I understand it?

A. Yes.

Q. Phase one was completed prior to Jonny McNee leaving Pike River employment?

A. Yes.

Q. Phase two you said in your submission was not approved?

A. I had a discussion, I was concerned, I phoned to Pike River staff who would've been involved with this and talked with Jimmy and Pieter, who are the South African people and they were definitely supportive of phase two going ahead. I have in writing the models, they're useful and we will further the testing of the model. At the same time they were also interested to take our coal geology short course which would've been an opportunity to discuss with them some of the complexities of West Coast coal geology.

Q. Is that a course that your company –

A. Yes.

Q. – provides or can provide to mine companies.

A. It's usually a one day short course for small groups, usually two people, and we tailor it for the particular needs and interests of whoever is attending so it's quite flexible.

Q. And did that occur?

A. No, I offered. I said, "Look I know you're busy. We could bring it over and that would give us a chance to discuss mine geology." The staff said, "Well really it's probably better if we come to you because things are very busy here and we'd be interrupted. It wouldn't really be a very conducive environment," so I said, "Well that's fine." I think that they just didn't have time. My feeling was they, the workload was such and the day to day reactions to things happening they just didn't get the opportunity to do that training. As far as the phase two testing of the model is concerned, we were moving at that stage into the beginning of 2009. My feeling is that apart from being very busy and having probably difficulty getting the attention of management for what would've seemed like perhaps a rather specialised area, as stratigraphy is not well understood, I think in addition to that resources were starting to be tight, this is financial resources, and the combination of those things my feeling was that's probably why phase two never made any headway.

Q. I'll just pause you there. Just briefly, is phase two of your proposal what actually did that involve? Is that where things such as pollen dating and, occurs?

A. You'll, I guess if it's easy you could put the cross-section back up. I think we probably should leave that up for the discussion.

Q. That's NEW016.

A. That's it.

Q. Just briefly, Dr Newman, if you could describe what phase two was intended to achieve?

A. Right, well as we developed here the Paparoa coal measures which is the bulk of this yellow part here under the main seam are lithologically very similar to the Brunner coal measure sediments and to these sandstone horizons or lenses within the main seam. Because of that you have to distinguish the units some other way than lithology. And the ideal way, given the circumstances which is that the Paparoa coal measures they are cretaceous, 70 million years old, and the Brunner coal measures are about 45 million years old, you can easily distinguish them by looking at the pollen assemblages. The plant pollen is distinctive for those two time periods.

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Q. So that's the type of further testing and analyse that you were –

A. That's correct.

Q. – hoping to do in phase 2 of your proposal?

A. Yes, I do some of this work myself but this is not my speciality. I have an associate who is expert in this. At the beginning of 2009 I did spend about two weeks doing some groundwork in preparation to see if we were going to get useful assemblages and the results of that were promising. But I did not further it as far as I would have liked because the processing that would have been needed for a conclusive result would have required hydrofluoric acid preparation which is done in the University of Canterbury laboratory facilities by my associate.

Q. So the upshot of that is that further funding would have been required -

A. Yes.

Q. – from Pike River Coal for that to continue?

A. We would have required approval of phase two and cooperation for access to samples that we needed and some funding to cover the costs of the work in order to further that.

Q. Can I ask you Dr Newman, yesterday you referred to about July 2009 telling Pike River Coal that you didn't wish to provide any more informal type advice information. Yesterday you described it, your term was in a polite way as, "Inadequate." In your submission though you've taken perhaps a firmer or a different take, and this is at page NEW001/4, where you refer to potential unsafe mining practice. Can you clarify what you mean?

A. Yes. The kinds of stratigraphic complications that I have described are potential hazards for underground mining. The questions that I would be asked by Pike River staff, either directly, a lot of these would be phone calls or by emails copied to me as well as to other contractors, those questions related to information coming out of my model. I did not think the model had been tested adequately and also developed to cover critical areas within the mine plan, or the planned area of mining. I thought without testing the model I could not give a definitive reliable answer to the questions that I was being asked. Now as I've said, I always made that clear and said, "Look, until we test this I can't give you what I regard as a professionally reliable response." By, I think, August 2009 I said to the people I was most closely liaising with, who were in CRL and particularly Nigel Newman, my husband who is with CRL. I said I'm not going to respond informally from now on because any response I make might be taken to be my professionally judged opinion and it's not, it is in my view not adequate because the geological information to hand from drilling mining and the stratigraphic studies I felt did not define the geological complexity in sufficient detail. From the time that I made that statement I did not answer anymore questions. I was not asked any more so it was taken to heart. And if we can move into 2010?

1055

Q. Yes.

A. I was at that stage only keeping up with events by seeing the press releases in the newspaper. I became aware that Gordon Ward, who'd been with project since the 1990s had resigned as CEO. More particularly I observed that Mr Whittall had been moved into that position. Now, the immediate thought in my mind was okay, who's now running the operation on site, and I may have missed something but I read many, many press releases and I never saw the answer to that question, as to now that Mr Whittall was off site who was really the person with complete all encompassing responsibility for the mining, mine safety, everything to do with the mine. This made me anxious. I already, as you know, had concerns about the geology not being sufficiently defined and these were my professional opinions. After being able to review the database in 2001 and 2008 I had no direct access after that, but I – there was one occasion, I knew that my husband was going to be visiting the West Coast, he would often – this is Nigel Newman, he would quite often go and provide some assistance in the Pike River wash plant because making wash plant operation successfully separate the clean coal was something that he had experience in. He told me that he was going over, this would've been approximately July/August 2010. I said, "Are you going to Pike River?" He said, "Yes." I said, "Well you know I'd just rather you didn't go in the mine." I'm relating this because I have been invited to make this comment. It really was part of my phase three submission. He asked me why not to go in the mine and I said, "Well, you know, it's just everything really, it's the geology." I wasn't really very specific. It was just my feeling at that stage that things were converging on a situation that I wasn't happy about.

Q. I want to ask you some specific questions Dr Newman about a comment that you've made at page 9 of your submission, so that's NEW001/9, and that's in relation to a comment that in 2008 there was frictional heating and ignition of the coalface. Can you just briefly describe to us

first of all what that means, and secondly why it was that you became involved in that issue?

A. This is not something I was formally asked to undertake any studies of. It's an example of a question that came up because of my knowledge of the lithologies and stratigraphy. Now, sometimes within the Brunner coal measures under the seams, this can be in Greymouth or Pike River, what happens during deposition of the peat is that you have acid, this is nothing to do with acid mine drainage, you have fumaric acids from the peat dissolving the minerals that are present, really in the soil horizon, these are quartz, clay, minerals. The acids allow them to go into solution and they leach down into the underlying sands and cement those sands unusually thoroughly. This makes a quartz layer which sometimes is called a ganister, it's an old word. It is exceptionally hard. It is much hard than the typical sandstones that are encountered. Now, I was circulated an email from CRL saying there were problems because the mining machine was causing a frictional heating situation because it wasn't able to cope with these very hard quartz rocks.

1100

Q. Sorry, are you able to describe to us just in layman's terms what a frictional ignition actually means?

A. Well the, the heating that's set up due to the friction of the mining implement against these hard quartz rocks just creates sufficient heat that you can have. You really call it combustion, not exactly spontaneous combustion, but enough heat to light up any gas that's being released from the breaking coal or potentially, I suppose for the coal itself to ignite, but I think it was more to do with the gas. The reason I was asked about this was solely in relation to what are these quartz horizons, are they likely to be continuous and is there any way to define their distribution to help mitigate that particular problem and I answered that.

Q. So just in relation to those – the enquiry that you had informally via CRL Energy, that was I think about November 2008?

A. Yes that would've been about then that that is in a time line and will be mainly in my phase three submission. My, part of my response was that I would expect to see these lithologies in an area where the coal seam was close to the Paparoa coal measures which I believe was likely to be the case in the pit bottom.

Q. Just on a different topic and going back to something you mentioned before in terms of the, the drilling at Pike River. Are you able to give an opinion as to what would be an adequate drilling programme or is that not something that's easily quantified?

A. I can, I can comment around it because obviously it varies with location. What you generally find is when you come to a new area, you put down a relatively small number of holes and quite often things will look quite simple. Then you get to the next phase and you begin to do fill in drilling and then suddenly it's not simple anymore, you start to find things you didn't know where there. Then you go to another phase again where you fill in some more to try and understand what these complexities are, in the case, for example, sandstone lenses in the seam, you'll be interested in their orientation, there lateral extent. Now, that phase, which I suppose you almost could call the third phase that is the phase that in my view did not take place. There was obviously drilling undertaken in relation to that phase after 2006, but it was specifically within the pit bottom area and in fact there were not many holes. That is a particularly structurally complicated area anyway. What I would have felt would – was appropriate, before really any development of the access would be to more definitively drill the area away from the pit bottom up into the areas like between drill hole 8 and drill hole 25, where in fact the workings had begun to progress through here by 2010, particularly in the second half of 2010, it seems to me as a geologist that you would want to have drilled these big gaps to find out what you were dealing with well before you got to that situation.

Q. And that's what you mean by in-fill drilling –

A. I do.

Q. – you drill holes in between prior drill holes.

A. Yes. But, to say exactly how many holes you would need, that really does vary with the situation how much structuring there is, what sort of stratigraphic complexities there are. It's not something you can be specific about or to generalise about. I suppose I would say, I would like to see at least two holes between 8 and 25, because at the moment that is a plus 600 metre gap.

1105

Q. Is there a usual or expected distance between drill holes or not?

A. I know and Dr Elder and Jonny McNee I think have been both referred, Jonny to me personally and Dr Elder in sessions that in places like Spring Creek and I know as well north of there in the proposed Liverpool underground sites, by the time you get to 100 metre spacings you're pretty much at the point where you're optimising the information you can get from drilling. To go less than 100 metre spacings is now always particularly useful but you find that your model for things like resource estimation and structure is not greatly assisted by going below 100 metres but 100 metre grid is not unusual in the Greymouth area. That is all I could really usefully say about that yeah.

CROSS-EXAMINATION: MS SHORTALL

Q. Dr Newman I just have a couple of topics I'd like to cover briefly with you. You talked earlier about your belief that after Jonny McNee, who I think was one of your students right, moved on from the company that Pike River's geologists and operations personnel were deficient in their West Coast or perhaps even New Zealand experience, right? Do you remember that?

A. And including actually coal experience because they did come from a minerals mining background.

Q. Do you recognise the name Guy Boyes Dr Newman?

A. No.

Q. Do you know that he worked for Pike as the technical services manager?

A. No, I have not seen that name.

Q. Would you agree with me, Dr Newman, that the technical services manager position is an operational position at Pike River?

A. I accept that that is your description. I would be dealing more with the geological staff.

Q. Well from, you may not know this Dr Newman but I'll just check whether you do. From July 1994 to May 1997 Mr Boyes worked for Solid Energy as the assistant mine manager at the Strongman Number 2 Mine. Do you know that?

A. No.

Q. And Strongman Number 2 is located on the West Coast, isn't?

A. Oh, I'm familiar with Strongman Number 2. What I would say here is that the geological issues and particularly stratigraphic issues are not usually the area of expertise of even the mine engineers and certainly once you get up to management level, this is something where the understanding is often limited. The mine models quite commonly can make the situation appear geologically simpler than it is. Now faulting is rather well defined, usually by most mine models. These are computer generated models so structural complications are often quite well understood. As I've tried to explain it is the stratigraphic complications that are poorly understood even by geologists quite commonly so by the time you get distance from your geological staff unless these things are shown very, very clearly on cross-sections then I would not expect the operations and management staff to really understand them. I would make the point that this cross-section which shows the stratigraphic complexity within the seam, if you look at the cross-sections that have been put up by Pike River Coal and are in the reports by people like Golders, the Brunner horizon is shown as an undifferentiated band, tape if you like, a strip with no detail within it whatsoever. This is the kind of depiction which can create in the mine of – in the mind of the management and mining engineers technical operations they see this in the diagrams and inevitably it gives the impression of a simplicity of stratigraphy which is not actually the case. That is I think dangerous. If your geology staff are from a minerals background they will not

necessarily realise even these things themselves and they're certainly not going to be educating their upper management staff.

1110

Q. Well let's just talk for few more questions about the geological staff Dr Newman. Do you recognise the name Peter Gunn?

A. Oh yes.

Q. And he was engaged by Pike as a consultant geologist wasn't he?

A. Absolutely.

Q. And before –

A. More particularly actually in relation to licensing access consents, feasibility, coal quality, coal handling, not actually really geology to be honest, that wasn't Peter's thing.

Q. And he was engaged by Pike for about six years?

A. Oh yes.

Q. Between 2000 and 2006. Do you remember that Dr Newman?

A. Absolutely.

Q. And before that from 1983 to 1987 Mr Gunn worked as a West Coast District Geologist for State Coal Mines New Zealand didn't he?

A. He did.

Q. And he worked as a senior geologist in the South Island for Coal Corporation New Zealand from 1987 to 1988 didn't he?

A. He did.

Q. And since 1993 he's been the managing director of Coal Marketing Services Limited, right?

A. I understand that, yes.

Q. And it was in that role that he was engaged by Pike, right?

A. Yes, which is related to coal quality, coal use, industrial properties. Shall I elaborate on Peter's role?

Q. I think it's helpful Dr Newman the answer you've provided. I was just checking around the West Coast experience please.

A. I would, perhaps later I could elaborate on that?

Q. You're welcome to do that. Do you recognise the name Frank Taylor Dr Newman?

A. Oh yes. I've mentioned Frank.

Q. And you that he worked as a surveyor at Pike River?

A. Yes. Frank was one of the people that assisted my access to the mines when I did my PhD work, yes.

Q. And he worked again for Pike as a consultant between I think 2000 and 2005?

A. Oh yes, he did.

Q. And you know Dr Newman that Mr Taylor had over 40 years experience working on the West Coast before he joined Pike?

A. As the chief mine surveyor which is a role in relation to actually mapping out the workings of the mines using underground surveying techniques. That is not a geological role. He certainly encountered a lot of geology in the process but I don't believe he did work with stratigraphic modelling, that kind of information, he would have had a good understanding of structural complications not stratigraphic complications. They were not really well understood until the kind of a new era of coal geology education, which really started in the later 1980s and people who didn't go through that training process would not have had that background.

Q. Now Dr Newman you also mentioned earlier that you believed your proposal to do some work, testing and refining your June 2008 stratigraphic, have I got that word right Dr Newman?

A. Correct, yes.

Q. Model didn't proceed because, I think your words were that financial resources were starting to be tight at Pike River. Do you remember that?

A. What I said was that I thought there were two reasons and that this was just my opinion. My feeling was that, A the staff were too busy with day to day reacting, to day to day issues, of which there were many. I thought that was one problem. Getting attention to these things is difficult in that situation and that I did have the impression, for various reasons, that expenditure on this kind of fundamental study was difficult

to get funding for that even in 2008 actually. Jonny had to work quite hard to get approval for phase 1.

Q. Do you recognise the name Peter Whittall Dr Newman, I think you've mentioned Mr Whittall before.

A. Oh yes.

Q. And just so I'm clear Dr Newman, Mr Whittall never said to you that the further work you'd proposed wasn't proceeding because financial resources were starting to be tight at the company?

A. I never spoke to Mr Whittall. When you're a geologist you tend to liaise within people who have an earth science background. My contacts within the organisation were Jimmy Corey and Pieter van Rooyman.

Q. Do you recognise the name Jon Dow Dr Newman?

A. Oh yes.

Q. And do you understand that Mr Dow is the chairman of Pike River Coal in receivership?

A. I do.

1115

Q. Have you ever met with Mr Dow Dr Newman?

A. No.

Q. Have you ever spoken with him?

A. I don't believe so.

Q. Once again, you don't tend to discuss geology with management. You discuss geology with the geology staff and to some extent the mining engineer's staff, they interpret your advice for their managers. That's how it tends to be done. If you were to go to a manager and say, Look, I'm Jane Newman, I'm a geologist and I think you've got a problem?"

A. I have not found that approach to be particularly constructive in the past and I do have some past history of trying that, it is not usually at all helpful.

Q. Have you tried that approach with Mr Whittall?

A. I'm not – no, because the history I'm referring to predates that time.

Q. Do you recognise the names Stu Nattrass?

A. No.

Q. Would it help you recognise his name if I told you that Mr Nattrass was another director of Pike River Coal (in receivership) Dr Newman?

A. It might, yes, thank you.

Q. So can I assume that you've never spoken with Mr Nattrass?

A. Absolutely not.

Q. And you've never met with him at all?

A. No.

Q. What about the name Ray Myer Dr Newman, do you recognise that name?

A. No.

Q. Doesn't help your recollection or understanding if I tell you that he's also a director of Pike River, or was a director of Pike River Coal (in receivership)?

A. No.

Q. So you've never spoken or met Mr Myer, right?

A. I have not.

Q. Do you recognise the name Doug White Dr Newman?

A. I do but only through reading the submissions that are on the website and a certain amount of, what do you call, grapevine discussions.

Q. Are you aware that Mr White became the operations manager at Pike River in early 2010 Dr Newman?

A. I have studied Mr Whittall's appendages to the submission which show the management structure and changes in 2010, yes.

MR HAMPTON:

I just wondered sir whether I might ask a question about the cost of phase two, whether we are talking about the proverbial horseshoe nail?

THE COMMISSION:

Ms Newman, is there anything you want to say about this?

MS SHORTALL:

The question is the cost of that work, is that –

MR HAMPTON:

The likely cost of the phase two work that she was asking to do including the, I think it is (inaudible 11:18:00) status, that's what I'm asking sir.

THE COMMISSION:

Leave is granted.

CROSS-EXAMINATION: MR HAMPTON

Q. Doctor, you've heard the question?

A. I have.

Q. Likely cost?

A. About top $20,000.

MR DAVIDSON:

I just want to explore a couple of matters already connected in relation to the 2009 stepping aside by Dr Newman and the decision she took regarding her husband going to the mine in 2010. There are matters of consequence for the families in my submission to the bench sir, short inquiry sir.

THE COMMISSION ADDRESSES MS SHORTALL

Is there anything you want to say?

MS SHORTALL:

I would just note, I think Dr Newman mentioned she was planning to talk about that in further detail in phase three so I've just – I think everyone is going to hear it in due course so it's just a question of timing Your Honour.

MR DAVIDSON:

I'm conscious of that sir and I don't intend to stray into the issues that will come up in phase three as such. This is the development phase and it's entirely related to the question of what management understood.

CROSS-EXAMINATION: MR DAVIDSON

Q. Dr Newman, when you prepared this written evidence in your conclusion, your discussion section which is at NEW001/13 you referred to one of the risks of the two halves of a split seam converging as the stone wedges out. Do you recall that evidence?

A. It was one of the hypothetical examples of the effect of stratigraphic complexity.

1120

Q. Yes, that's why I asked the question because there you identified the potential risk of a gas outburst through a false floor?

A. Yes, that's how I express it.

Q. And the false floor is because what seems like the bottom of the seam is not?

A. Yes.

Q. As such?

A. Correct.

Q. Now in the following paragraph you talk about the complexity of the West Coast underground coal mines. Does the stratigraphic complexity you've described here extend through those West Coast coalfields?

A. Yes, all of them.

Q. All of them. Have you seen evidence of issues around such complexity in relation to events at other mines?

A. I would say no, not without liaising with mine geology staff, I would not want to go beyond my area of expertise without further preparation.

Q. Now the last two questions are firstly, you say at that page reference 13, that your proposal was to improve understanding of the stratigraphy were not approved because the importance of the work was not understood by senior management. Did you have discussions which identified the importance of the work which allow you to make that comment?

A. That comment is based on discussions with geological staff and my – and a number of these were on the phone. The impression I had from

them if I can be frank, was that it was hard for them to get the attention of management. In a subject such as I was proposing would be a hard one to make a case for in the climate of the mine at that development stage. I had the impression from these discussions and to some extent from emails that the day to day problems cause a very busy preoccupied kind of feeling in the organisation and that to try and say to the people who had to sign on the dotted line and provide the money, to try to explain the objectives of this work would be very difficult in that climate.

Q. So as a way of putting that, you felt you had the ear of some of the people you were speaking with that the geological level –

A. I most definitely did and I have emails to that effect, yep.

Q. Finally, I don't want you to enumerate factors, when you chose to say to your husband not to go down to the mine in 2010, you talked about a convergence of factors in a way you were not happy about.

A. Yes. These were –

Q. I don't want you to go into it at this time.

A. No, I understand, that is correct though.

Q. And some of those you have discussed today, you've mentioned, and obviously there are others that you can develop in phase three?

A. They were geological and also relating to changes in management, such as I have read about in the paper. That was when the alarm bells really began to ring for me.

RE-EXAMINATION: MS BEATON

Q. Dr Newman in response to a question from my learned friend Ms Shortall, you referred to having previous personal experience as going as a geologist to management directly, was that in relation to Pike River Coal Mine or another mine?

A. No that was in relation to when the Pike River licence was taken over by New Zealand Royal and Gas in 1988.

1125

Q. Right, so could you explain to us what you're referring to?

A. I can, if it's wished. I had had a very good relationship with Terry Bates and his staff when the area was under two licences and prior to the complications over the Paparoa National Park. We've done some very useful work over that time. He made me aware that the licence, which was now in one licence, was going into New Zealand Oil and Gas management and I thought right I now need to make the new management aware of the work that we're doing as it relates to the coalfield. There was a conference in Wellington at the time. I communicated with Roger O'Brien of New Zealand Oil and Gas and said, "I'm going to be in Wellington. I'd like to come and see you to talk about the kind of work that we're doing," and so that we could have an open channel to co-operate and liaise. I was invited to go along and meet with them to discuss this. I went along between sessions. I was just expecting a chat. I got there and there was Roger and think one or two other people, I don't know who they were now, I could guess but I won't. I was in a meeting room and they said to me, "Can we get you anything?" and I said, "Oh you know I'll have a water thanks." So I was given a bottle of water and then they said, "Look we don't want to talk to you. We are not interested in the work that you're doing, that your students are doing." I couldn't understand the agenda. I was completely confused. There was no discussion. They said, "Look you can finish your water and then you know you can go," so they left the room and I was sitting there with my water thinking that was really strange, so I did go. Not too many days after, I had a phone call from Geological Sciences, it was a New Zealand geological survey, I won't say who that was from. This person was angry. They were very angry. Shall I, do you want me to flesh this out or not?

Q. Well I think you perhaps need to give us some detail?

A. Well they were, they were absolutely furious actually and finally I managed to illicit that geological survey had been engaged professionally by New Zealand Oil and Gas to develop a computerised database with all the coal analyses, section descriptions, drill hole data. This was all to be put into not necessarily a model but certainly an

organised computer database and the impression apparently I'd given by going for this meeting was that I was trying to take that work away from New Zealand geological survey. I don't really think New Zealand Oil and Gas thought that because I had certainly not made that impression but I do believe that geological survey drew that inference from the time. I, I said –

Q. So when was this?

A. This was 1998, shortly after the licence was taken over. I apologised profusely and said that I had no such intention and that was the end of that conversation –

Q. And I –

A. – a few days later – do you want the rest sorry?

Q. No, I think we might draw the line there, Dr Newman.

A. That's fine, that's fine.

Q. I'll just get you to confirm though that obviously since 1988 you, yourself, through your company have been directly engaged by Pike River Coal Limited?

A. Oh absolutely yes.

Q. And done work for them since then?

A. Yes, yes.

QUESTIONS FROM THE COMMISSION:

Q. Can you help me with a couple of points that I haven't picked up on, Dr Newman? Well the first is really a follow on from what Mr Hampton asked you. In order to have done your phase two model work would you have used existing samples or would there have been a need for further drilling?

A. Both, oh, no I didn't need further drilling. I had a number of samples already. I would have needed more samples but they would've been from existing –

Q. Stocks?

A. – drill bores, yes.

1130

Q. The second point concerns your hypothesis about the risk of outburst where you have a sandstone lens within a coal seam and not appreciated by the miners. Am I right in thinking that the outburst risk exists because with the unknown portion of the seam, either above the tunnel or below it, there would have been no inseam drainage of methane from that portion and hence the risk of gas build-up causing a collapse of roof or a floor?

A. Can I answer that in more than one part, I'll be quick?

Q. Well can you give me a yes or no and then qualify it. Am I on the right lines or am I misinformed?

A. I think I have to say very, very clearly here that I am not expert in gas outbursts. I should also say, and I have made this clear in my submission, that this was just one potential or hypothetical statement –

Q. Yes.

A. – to illustrate the importance of stratigraphic understanding. I probably have said enough but any geological complication that can cause instability or unexpected working conditions within a mine is a hazard and gas is part of that hazard as I understand it. But there are people better qualified than me to go into that. I would, one last thing that I want to say is that at this stage I understand that we are in the business of visualising all the possible eventualities and we are not at this time in the process of discarding any ideas. This is ideas gathering and then the winnowing and discarding that's probably phase three. That's as I understand it.

Q. Right. Well that completes your evidence. We're grateful for your input Dr Newman and you are excused.

EXHIBIT 4 PRODUCED – PHOTOGRAPHS OF THE 3D CROSS SECTION DISPLAY

EXHIBIT 5 PRODUCED - PHOTOGRAPHS OF THE 3D CROSS SECTION DISPLAY

WITNESS EXCUSED

COMMISSION ADJOURNS: 11.32 AM

COMMISSION RESUMES: 11.50 AM

MR STEVENS CALLS
ROBIN HUGHES (SWORN)

THE COMMISSION:

As counsel will recall we made an interim suppression order last night affecting effectively only counsel who were the only people who had access to Mr Hughes' brief. I lift that interim suppression order, but in light of discussions which we've had with counsel assisting, who have in turn liaised with other counsel, I make a new interim suppression order which relates to paragraph 33 of the brief of evidence that paragraph deals with some issues concerning the qualifications of then mine inspectors and the reason the order is made is that the brief was only finalised a few days ago and has only therefore been available to counsel and others about 48 hours, 24 hours ago I think, and the Commission is satisfied that it is appropriate that there be at least an interim order because the people who are the subject of those comments will not have had an opportunity to, first of all be alerted to them, let alone to respond to them and hence we are satisfied that it is appropriate to make that interim order. So when we reach that part of the brief, I'll just pause for a moment and we will identify it for the purposes of television who are doing live streaming.

MR STEVENS:

Can I also note that there would be a slight correction to one paragraph and an omission of one other part of one paragraph.

EXAMINATION: MR STEVENS

Q. Mr Hughes could you state your full name please?

A. Robin Llewellyn Hughes.

Q. And have you prepared a statement for phase one hearing of this Commission?

A. Yes I have sir.

Q. And do you have a copy before you?

A. Yes I do.

Q. And can you please confirm that to the best of your knowledge it is true and correct?

A. It is sir.

1155

Q. Could you please turn to paragraph 1 in the section headed, "Background", and could you commence reading your statement from paragraph 1.

WITNESS READS BRIEF OF EVIDENCE

A. Background. On Wednesday the 29th of June 2011 I was requested to provide a statement for counsel for the Royal Commission on the Pike River coal mine tragedy, the Commission. The topic I was asked to provide a statement about was the mines inspectorate including the role of the mines inspectorate up until 1992. What occurred after 1992 as a consequence of the change in legislation, including what inspectors did, what concerns if any there were for the mine inspectorate as a consequence of the change in legislation. I understand this request is because I was a district inspector of coal mines in the Buller and Inangahua District from February 1987 until June 1989 and later the Chief Inspector of Coal Mines from May 1994 until November 1998. This statement is given in that capacity is unrelated to any involvement I had at Pike River before the disaster on the 19th of November 2010. My current employment and my involvement with Mines Rescue Trust Incorporated. Qualifications and experience. My qualifications and experience in the coalmining industry are attached as appendix 1. In summary I've been employed in the coalmining industry for over 40 years in a number of capacities. This includes appointments as mine manager at seven underground mines, five in New Zealand and two in Australia.

EXAMINATION CONTINUES: MR STEVENS

Q. Now just pausing Mr Hughes at paragraph 3.2, there are some additions that I think you wished to make to that paragraph. When you make

those, for the record could you be clear as to what is being added please.

A. Yes.

THE COMMISSION ADDRESSES MR STEVENS – BRIEF OF EVIDENCE

EXAMINATION CONTINUES: MR STEVENS

Q. Please read paragraph 3.2 but with any additions from the text you have in front of you that you wish to make.

A. Thank you. I was employed as a district inspector of coal mines in the Buller and Inangahua District from February 1987 until June 1989 within the Ministry of Energy and was Chief Inspector of Coal Mines from January 1994 until November 1998. The position initially within the Ministry of Commerce then with the Department of Labour when the Mining Inspection Group was abolished. I was also employed for a short time by the Department of Labour from late 1999 till January 2001 as an inspector of coal mines.

EXAMINATION CONTINUES: MR STEVENS

Q. Just pausing there, sorry Mr Hughes. Were you also a district inspector with the Ministry of Commerce from June 1992 until January 1994?

A. That's correct.

Q. Thank you. Please continue at 3.3.

WITNESS CONTINUES READING BRIEF OF EVIDENCE

A. I hold a variety of relevant professional qualifications which are listed in appendix 1. I was a mines rescue brigadesman from 1972 to 2006. Since 1993 I've been a member of the board of Mines Rescue Incorporated serving 10 years as chairman. Overview and structure. Below I set out a series of topics and questions which I then comment on based upon my experiences as an inspector of coal mines and later the Chief Inspector of Coal Mines for five years. The structure of the mines inspectorate under the Coal Mines Act 1979. The structure of the

mines inspector prior to the introduction of the Health and Safety in Employment Act 1992 is detailed in part 2 of the Coal Mines

A. Act 1979. This person was required to have a wide range of industry knowledge and experience, a requirement which had its origins in the aftermath of the explosion at Brunner Mine in 1896. A recommendation from an inquiry into that disaster stated in part, and I quote, "The duties of inspectors should be performed by separate officers. This officer should be qualified by examination and practice as a colliery manager. Prior to the corporatisation of state coal mines in 1987, district inspectors of coal mines were promoted within the ranks of the most senior mine managers in the country.

1200

A. The step from management to the inspectorate was very clearly a promotion within the industry and salaries offered to inspectors reflected that fact. Further, the Act provided for the appointment of electrical and mechanical engineering inspectors. During the currency of the Coal Mines Act 1979 the Chief Inspector of Coal Mines, along with the electrical and mechanical inspectors, was domiciled in Wellington. This enabled direct contact with government officials and provided a central area from which to disperse to the districts when necessary. District inspectors were present in each of the coalmining areas in New Zealand. Waikato King Country, Nelson Buller, Canterbury West Coast and Otago Southland. In some situations the workload was such that two inspectors may be appointed to one district. A distinct advantage in having a dedicated coal inspectorate was the maintenance of a high standard of service delivery through the use of inspectorate forums including membership of and participation in the Australasian Chief Inspectors Conference. The functions performed by the mines inspectorate then included respect of education. There was not a statutory function of the coal mines inspectorate to provide education to the industry, however many inspectors of coal mines had an ongoing interest in mining education and conducted mining classes voluntarily. They also became involved in examining candidates for

mining certificates of competence. For example, Mines Rescue Certificates, Gas Testing Certificates, Fireman Deputies and Mine Underview Certificates. Giving advice. In terms of assisting managers and owners to operate their mines in a safer and more efficient manner advice was given freely. The frequent attendance at individual mines gave inspectors a clear understanding and detailed knowledge of each operation and allowed them to discuss their concerns from an informed position. Coal inspectors traditionally had an open door policy and welcomed interaction with all sections of the industry. Further, the giving of advice became particularly important following the repealing of the Coal Mines Act 1979 and the revocation of the regulations. There was considerable confusion with mine management regarding their obligation with respect to the new legislation. Competency of workers. Judgement as to whether or not mine workers were competent to carry out duties assigned to them is the responsibility of mine management. The inspectorate was invariably involved when a mine worker presented himself as a candidate for a statutory certificate. Inspection. Frequent and detailed examinations of open cast and underground mining operations to ascertain compliance with the various legal instruments that governed industry, for example, the Coal Mines Act 1979, the Coal Mines Mine (Management and Safety) Regulations 1980, the Coal Mines (Open Cast Coal Mines) Regulations 1986, the Machinery Act 1950, the Boilers Lift and Cranes Act 1950, were a basic function of an inspector of coal mines. As a general rule small underground mines would be inspected monthly or at a greater frequency if directed by their chief inspector. Such direction may be made in respect of mines where flammable gas was present and where the coal being mined was prone to spontaneous combustion. The larger mines were often inspected weekly, for example, Strongman, Liverpool Number 3, Huntly East and Huntly West, due to the impossibility of covering all aspects of the operation in a single attendance. In accordance with recommendation 3 from the inquiry into an explosion in West Haven Mine in 1958 and reiterated in the Strongman inquiry in 1967 the detail of all requisitions

arising from such visits were written down by the inspector and handed to the mine manager for attention. Any requisition issued was reinforced by letter from the inspector to the mine manager with a request to confirm that the matter in question had been dealt with and by subsequent inspections of the mine.

1205

A. Licensing, part 3 of the Coal Mines Act 1979 dealt with licensing. The role of the inspector of coal mines was to receive applications, ascertain their relevance and content and to liaise with the applicant to ensure that the application satisfied the requirements of the Coal Mines Act. A brief would then be prepared and forwarded to the Secretary of Energy either recommending the acceptance or non-acceptance of the application. An important part of the Inspector of coal mines role was ensuring compliance with licence conditions. Consideration of mine design, coalmining licences contained a section requiring a licence sold to submit a mine plan every 12 months or six months for the larger mines showing the development and extraction that had occurred at the mine during the relevant period. A further requirement was submission of a plan of intended development and extraction for the ensuing 12 months or six months as the case may be. If the inspector of coal mines was satisfied that the plan of intended development indicated sound mining practice and did not contravene any regulation. He will endorse it, then forward it to the Chief Inspector of Coal Mines for approval. Alternatively if the submitted mine plan gave the inspector any cause for concern he would liaise directly with the mining company concerned in order to have any errors or deficiencies rectified. The role of the Chief Inspector of Coal Mines and other inspectors, for example electrical under the Coal Mines Act 1979. The position of Chief Inspector of Coal Mines was established following an inquiry into the deaths of three miners by carbon dioxide poisoning at Nightcaps in 1907. By definition the Chief Inspector of Coal Mines is the paramount coalmining official in New Zealand and was selected for the role on the basis of having a wide range of industry knowledge and experience at a

senior level. In addition to his being appointed as an inspector of coal mines the chief inspector had the authority to approve equipment and materials intended for use in coal mines. Imposed conditions of approval and issue exemptions from compliance with certain sections of the Coal Mines Mine (Management and Safety) Regulations 1980. He was also appointed under s 210(2)(b) of the Coal Mines Act 1979 as the Deputy Chairman of the Board of Examiners. Direction and mentoring of the district inspectors of coal mines was an inherent part of the job. Electrical inspectors are appointed from those with the required qualifications and experience to inspect electrical equipment and wiring work in and around coal mines to ascertain compliance with the Coal Mines (Electrical) Regulations 1980. Similarly, mechanical inspectors were appointed to inspect the installation and use of machinery in the coalmining environment, whether those roles all equivalent were retained under the Health and Safety in Employment Act 1992. The introduction of the HSE Act and the concurrent repealing of the Coal Mines Act and revoking of the Coal Mines (Mine Management and Safety) Regulations 1980, on the 1st of April 1993 significantly reduced the authority of the coal inspectorate. Where necessary certain provisions of the regulations were applied as a practicable step as defined by section 2 of the HSE Act. The introduction of the Resource Management Act 1991 transferred responsibility for work programme approvals from inspectors of coal mines to regional councils. In practice this took several years to accomplish due to confusion in many quarters over how this transition would occur. Following the demise of the Ministry of Energy under the Ministry of Energy Abolition Act 1989 the Mining Inspection Group MIG was formed as a section of the Ministry of Commerce. This is essentially an integration of the coal, hard rock, and surface mining inspectorate under a single administration, for example underground coal, open cast coal, quarries tunnels, and metalliferous mines. A Chief Inspector of Coal Mines was retained as an interim measure during the transitional period.

1210

A. Coalmining licenses issued under the Coal Mines Act 1989 are unaltered due to the savings clause s 107 of the Crown Minerals Act 1993. The following five years saw a diminution of the coal inspectorate because of retirements and inspectors leaving to take up other employment opportunities. In 1998 all inspectors that held warrants under the Health and Safety in Employment Act 1992 were transferred to OSH and the Department of Labour. The Minister of Commerce at the time, Max Bradford stated that the safety in the coalmining industry would not be compromised by this move. This spelled the end of a dedicated coal mines inspectorate. A few months after this transfer occurred the Chief Inspector of Coal Mines resigned. OSH officials gave a clear expectation that all inspectors appointed under section 29 of the Health and Safety in Employment Act 1992 were to conform to the standard operating procedures developed for the purpose of ensuring workplace safety. This largely took the form of auditing a standard set of requirements that were generic to any industry. Proactive inspections of coal mines were actively discouraged and the input and licensing matters to Crown Minerals by inspectors of coal mines was discontinued. The Crown Minerals Group within the Ministry of Economic Development which it became issued mining permits with no input from the inspectors who were very familiar with the coalmining districts. How inspectors operated. Under the Coal Mines Act 1979, the function and duties of the inspectors under the Coal Mines Act 1979 has largely been described in the foregoing. Inspectors were self-starters who planned their time accordingly to the demands of industry. It should be stated here that without exception, inspectors of coal mines were individuals who had worked their way up from miners at the coalface to mine officials and then on to mine management before being appointed to the inspectorate. With this background they had considerable empathy with and respect within the industry. During the 1992 to 1998 transition. During this period the inspectorate was administered by the Mining Inspection Group under the Ministry of Commerce. It was also a time when the inspectorate

was coming to terms with the Health and Safety in Employment Act 1992. The repealing of the Coal Mines Act effectively removed the wide ranging powers of the Chief Inspector of Coal Mines and the district inspectors. Inspectors no longer had any right of approval or the right to grant exemptions where previously permitted under the Coal Mines Regulations. The coal mines inspectorate diminished with a number of retirements and resignations taking effect. This reduction in the number of coal inspectors considerably increased the workload of those who remained. During this period there was an increasing concern from the Ministry at the lack of specific legislation to govern coalmining in New Zealand. The industry felt they needed greater certainty than that offered by the Act. The result was the Health and Safety in Employment (Mining – Underground) Regulations 1999. From 1999 onwards. The attendance of inspectors at coal mines diminished markedly. Whereas MOE and MIG inspectors would conduct proactive inspections of coalmining operations regularly as described, OSH inspectors rarely attended coal mines other than to conduct investigations following accidents and incidents. Those inspectors recruited directly by the Department of Labour, not transferred from Commerce, were bound by OSH policies with a single exception, did not satisfy the person specification that has evolved as a result of a number of Commission's of Inquiry. (G) What kind of support and/or opposition was there to the merger of MIG with the Department of Labour? The transference of MIG to the Department of Labour has its origins in the repealing of the Coal Mines Act 1979 on the 1st of April 1993. The change was promulgated by the Minister of Labour, Max Bradford and supported by officials in Commerce. There was considerable opposition to the proposed merger of OSH in the Department of Labour from the personnel directly affected by this decision and by the extractive industries at large.

1215

A. Correspondence around concerns that were diminution of the status of the coal inspector and a potential loss of a dedicated coal mines

inspectors was directed to the Minister of Commerce. Correspondence expressing concern is available. If so, were there included concerns about the following and what those concerns were, for example, the inspectors, the industry and the ministry or the departments. Health and safety. A primary concern of MIG inspectors was the reduction or elimination of proactive inspections. The OSH view was that work place health and safety was primarily the responsibility of the mine operators and that operational guidance or advice should not be offered as it may not be the view of the Department of Labour and could therefore legally compromise the department. The actual and comparative expertise of MIG and Department of Labour inspectors. Both MIG and DOL employed inspectors of a specialist knowledge in their field of expertise. The actual and comparative salaries of MIG and Department of Labour inspectors. The specific salaries paid to MIG and DOL inspectors are known but it is understood that the salaries paid to mining inspectors was significantly higher than DOL inspectors. There were many concerns expressed by those directly affected about the loss of a robust coal inspectorate. The ongoing failure to attract suitable candidates to fill vacancies for coal inspectors was due primarily to an unwillingness to pay a competitive salary for suitable mining professionals. Concern over the approval of work programmes by persons unqualified to do so was raised in the publication following the explosion at Moura Number 2 Mine in 1994. This is a public document that was produced at the request of the Secretary of Commerce to address the recommendations from the Moura Inquiry under 16 general headings. The review committee consisted of seven personnel from diverse backgrounds in the coalmining industry and was facilitated by the Chief Inspector of Coal Mines. The original text of the comment under the heading, “Number 9 Sealing and Design Procedures,” on page 14 of that document, the review of the recommendations from the warden’s inquiry into the accident at the Moura Number 2 Mine Queensland on Sunday the 7th of August 1994 stated in part. The location of final seals for a miner section is not subject to the approval of an inspector of coal mines

in New Zealand where the mining operation is held under a mining permit. The current situation for the submission of work programmes for underground coal mines in New Zealand is that the secretary is required to approve those operating under mining permits issued under the Crown Minerals Act 1991. This is facilitated through the Crown Minerals Group, Ministry of Commerce. The role of the secretary in this approval process, in the opinion of the review committee, is inappropriate in relation to underground coal mines and is very much a technical matter that is clearly the domain of a person or persons with the appropriate expertise. The right of approval conferred on any person is neither technically qualified nor experienced to stand in judgement on such matters is an anomaly in the current statue that must be rectified. The approval of work programmes or plans of intended development for operations held under coalmining licences issued under the Coal Mines Act 1979 are required to be approved by inspectors of coal mines. The reason is that it is a savings clause under the Crown Minerals Act 1991 provides for the continuation of mining privileges is that that legislation had never been repealed.

Q. Mr Hughes, could you now please read out the final form of the text from that document?

A. The final form is the approval of work programmes or plans of intended development and extraction through operations held under coalmining licences issued under the Coal Mines Act 1979 are required to be approved by an inspector of coal mines. This is provided for by a savings clause in the Crown Minerals Act 1991 section 107(c). the imposition of a requirement for the consideration of or provision to minimise the effect of spontaneous combustion is implicit in that approval process.

1220

A. Where the operation is held under a mining permit issued under the Crown Minerals Act 1991. The location of the final seals for the mine is not subject to the approval of an inspector of coal mines. Nor is there any provision for such approval under the Health and Safety in

Employment Act 1992. It is incumbent on coal mines employers to employers to develop procedures to deal with spontaneous combustion. If that phenomenon has the potential to create any danger to the workforce. Section 14 Health and Safety in Employment Act 1992. Given the incidents of past catastrophes arising from spontaneous combustion the review committee strongly recommends that the approval process for coal mines operating under a mining permit be clearly channelled through the inspector of coal mines to ensure that the appropriate level of technical expertise is incorporated into the approval process.

EXAMINATION CONTINUES: MR STEVENS

Q. Again Mr Hughes, just some brief additional questions at the end of your paragraph 30. Why was that text changed please?

A. It was felt inappropriate for a departmental document to be critical of itself.

Q. And did the revised text reflect the law at the time?

A. It does entirely sir.

Q. And were you the chief inspector of mines at that time?

A. I was sir.

Q. And the author of both texts?

A. Yes.

Q. Yes, thank you. Could you continue please at section I, whether there were and if so?

WITNESS CONTINUES READING BRIEF OF EVIDENCE

A. Whether there were and if so the nature of changes in the qualifications, experience and number of inspectors during the transition period from 1992 to 1998. As stated in paragraph 21 above the numbers of inspectors of coal mines diminished during this transitional period. Although the qualifications and experience required of candidates who applied for inspectors of coal mines vacancies remained exactly as it was during the Ministry of Energy administration. Adherence to these

criteria in making an appointment was ignored. The following is an excerpt from a Ministry of Commerce job description dated 1995. Person description for appointment as an inspector of coal mines. Work experience. Five years in or about coal mines sufficient to gain mandatory statutory qualification (a first class coal mine certificate of competence). Second bullet point. An additional six years of varied industrial experience in the management of open cast or underground coalmining operations. The third bullet point. Such other experience as may be necessary in relation to additional industry qualifications. The personal qualities and attributes. An ability to meet and to discuss in an authoritative manner matters relating to mining with senior officers and other organisations within the mining community. Possess sufficient standing to be respected by these communities. Second point. An ability to write concise reports. Third point. An ability to make sound decisions on matters concerning safety in or about mines. Fourth point. An appreciation of the limits of both the appointees ability and authority.

Q. Just pause there please Mr Hughes.

MR STEVENS ADDRESSES THE COMMISSION:

I think sir we come to the subject of your order.

THE COMMISSION:

Right. I don't think that on behalf of the Commission I have made apparent the terms of the interim suppression order. The paragraphs which follow, or sub paragraphs, do not actually use names so an order suppressing names is not required. The interim order is to this effect that any details capable of leading to the identification of the persons who are being referred to may not be published or broadcast.

EVIDENCE SUBJECT TO INTERIM SUPRESSION ORDER DELETED

A. Recommendation number 13 from the Commission to Inquire to Disaster at Strongman in 1967 stated, "The status of the Chief Inspector of Coal Mines and the inspectors of coal mines, must be increased to meet the gravity of the task that rests upon them. The inspectorate

should be divided from the production side of the mine's department." Giving the ongoing record, inappropriate appointments, it is quite apparent that officials and neither the Ministry of Commerce, nor the Department of Labour were familiar with this recommendation. (J) The reasons for and the effect of those changes. The changes in approach regarding the inspection of coal mines are clearly founded in the introduction of the Health and Safety in Employment Act 1992. The corollary of the responses offered to the questions raised above is this: The inspectorate changed from being an active and expert participant in coal mine safety to a reactive and substantially less well qualified organisation. It became an ambulance at the bottom of the cliff and not a fence at the top. The explosion at Pike River Mine on the 19th of November 2010 had its origins in the repealing of the Coal Mines Act and its Regulations in 1993. The unwillingness of government officials up to and including the Prime Minister of the day to act on the advice offered by a number of individuals, resulted in the loss of a robust coal mines inspectorate staffed by the most experienced and technically skilled personnel available. In my opinion this has manifested itself as follows: The creation of a statutory mechanism whereby work programme approvals are made by officials who lack a basic knowledge of coal mine design. For example, the approval of work programmes by regional authorities. A telephone call by myself to the West Coast Regional Council on the 5th of July confirmed that approvals focus on compliance of the resource consents rather than sound mining practice. A mining specialist is not retained for this purpose. The second point. The comparatively infrequent attendance of inspectors at coalmining operations and the serious doubt in the industry that some inspectors possess the technical skills and industry standing required to discharge the duties of an inspectorate in an authoritative manner. The third point. The ongoing failure of the administrating agencies, most recently the Department of Labour to recruit and retain people with the right skills for the job. This failure stems primarily from an unwillingness to match industry salaries and conditions of employment. The fourth point. The

loss of 29 lives and the loss of over $300 million capital investment. Footnote, in respect of the inspection of coal mines, the recommendations from previous enquiries, in particular Brunner Mine, Greymouth 1896, Nightcaps Mine 1907, Ralph's Colliery Huntly 1914. Linton Mine Ohio 1929, K and Party Mine, Greymouth 1940, West Haven Mine, Mangarakau 1958, and Strongman Mine, Greymouth 1967 may be of interest to the Royal Commission.

1230

A. It is unlikely that those recommendations have lost their validity, however it will become apparent that many of those recommendations have not been embraced to the extent intended. Inevitable loss of corporate memory has occurred in both industry and government through the passage of time and circumstance. The result of the key learnings from past disasters either ignored consigned to history through a certain arrogance that assumes modern mining technology has superseded and somehow resolved the problems of the past. To regard coalmining as being, "The same as any other industry," for the purpose of statute is to ignore the findings of a number of Commissions of inquiry and the fact that it has been and continues to be a potential source of multiple fatalities in the workplace. No other land based industry has the same potential. The regulation of specific duties and functions for corollary management and the inspection of coal mines has been reiterated repeatedly following New Zealand mining disasters and there's little doubt it will be said again.

Q. Thank you, Mr Hughes, now you've referred at paragraphs 29 and 30 to a review of the recommendations from the warden's inquiry into the accident at the Moura Number 2 Mine in Queensland. Could I ask through you madam registrar could you – could you go to page 16 please and just wait for the document to come up Mr Hughes? Mr Hughes, firstly could you confirm that the document you've been handed is the document that you referred to in your evidence?

A. Yes, there it is.

Q. For the record I'll have you produce that please.

EXHIBIT PRODUCED 3 – REVIEW OF RECOMMENDATIONS – MOURA NUMBER 2 MINE, QUEENSLAND

Q. Could you please, I think on your screen there is at page 16 of the document it's numbered 14 in the bottom left-hand corner, but of what will become the summation document could you please confirm that that is the text as originally written by that committee?

A. That's correct, sir.

Q. Could I have the next page please and could you please confirm that the page you're now looking at also on the document numbered 14 and I understand 7 – it will be 17 I'm told on review document 07 or 070894, that is the text as was subsequently substituted?

A. That's correct.

THE COMMISSION:

Now because Mr Hughes' brief was not available at the time that the hearing plan was prepared there was no opportunity for applications to cross-examine to be made and I think the Commission has already indicated that it would entertain oral applications. Now are there counsel who do wish to question Mr Hughes.

MR HAMPTON:

I certainly do, sir. Do you want me to outline roughly where I want to go. It'll be very rough, sir, because I've only been making notes as we've gone along and I wasn't quite anticipating Mr Hughes this morning -

1235

THE COMMISSION:

Can we take it from that that you are intending to question on issues which have been specifically raised in his prepared brief of evidence?

MR HAMPTON:

Relating to matters raised and then relating it to other documents which are part of the materials before you, such as the Mine Steering Group minutes of recent origin, where there is discussion about plans and what the heck should we do with them, discussion about who the chief inspector of mines is and discussion about such things as if we seem to have approved some of these plans we may be liable, they will touch on matters that have been raised by Mr Hughes. I'd want to touch on some of the –

THE COMMISSION:

Are those minutes during Mr Hughes' time as chief inspector?

MR HAMPTON:

No they're not.

THE COMMISSION:

They post date that?

MR HAMPTON:

They post date it sir. I'd want to touch on the declining in numbers of the inspectorate and who, touch on as well the mention by Mr Hughes of if he had cause for concern on designs you do something about it and contrast that with what is the position now as he understands it to be and I'd want to get, and I hadn't asked him about this, I'd want to get from him an understanding of his position on chief inspectors, not Solid Energy's view but rather his view. That's the rough gambit of matters and as well the four Spring Creek incidents that were mentioned yesterday and what his reaction as an inspector or chief inspector would have been to them.

THE COMMISSION:

Well, I'm going to ask for the indications from others as to whether they wish to cross-examine because one of the things we seek to avoid in granting leave is repetition so it can be nice to know whether there are other applications to be made as well. Mr Davidson?

MR DAVIDSON:

Sir, I have spoken to Mr Hughes and therefore because the sequence has changed with Mr Dow supposedly coming after Mr Hughes now and he has given me an answer with regard to Mr Bell's brief which allows me to avoid much of the examination I have proposed for him but there are some matters he has raised in this brief which I have inferred in particular to Mr Bell and I just want to elaborate on them. They're not an extensive list. I don't intend to replicate anything that Mr Hampton has indicated to the Court and therefore I do not expect it would take more than 15 to 20 minutes.

THE COMMISSION:

Is there anybody else? Ms McDonald?

MS MCDONALD:

Yes sir, the matter is slightly problematic from our point of view given the importance of some of the issues raised and the fact we only got the brief a short time ago so what I contemplated doing was seeking leave, and I do seek leave, to file reply evidence to much of what Mr Hughes has dealt with rather than an attempt to deal with it today without proper notice of the brief having been given and I'm not being critical of that, it's just it is a fact. There is one exception to that. I would like to explore, in a very brief and confining way, a couple of matters in relation to the paragraph in respect of which the suppression order applies and that may be problematic because of the live feed and I was going to raise that with you. My questions about that are not extensive at all but I think I do need to put them now rather than to leave that issue. Having heard my friend's indication of the extent to which they seek to cross-examine Mr Hughes raises another issue because that cross-examination in itself will raise a whole lot of other issues that I may need to address on behalf of the department, on behalf of the Crown. I simply don't know what the position there is and I will have to wait and see where that questioning leads.

THE COMMISSION:

Well, that suggests that you are asking to examine after them?

1240

MS MCDONALD:

Certainly asking to examine after them and I may need to be in a position where – I would imagine much of what I would want to have drawn out can be dealt with by reply evidence rather than cross-examination.

THE COMMISSION:

Yes.

MS MCDONALD:

But there may be some exceptions to that. Can I just make one specific comment in relation to Mr Hampton's indication of wanting to explore issues relating to the four Spring Creek issues that were raised yesterday. I am a little concerned about that. Those matters will be the subject of a discreet brief that we are preparing, brief of evidence, which I will be seeking leave to file with the Commission to explain more fully the circumstances around all of those. So there will be an opportunity subject to that leave being given for those matters to be dealt with with a later witness.

MR HAMPTON:

I'm probably prepared to, well my friend should perhaps go first but he's just spoken to me. I'm probably prepared to step back from that. I might ask in a generic sense what Mr Hughes attitude would be to a flashover but I won't ask the specific matter sir.

THE COMMISSION:

Right, thank you.

MR HAMPTON:

That may solve both my friends problems.

MR STEVENS:

Sir, I rise as counsel for Solid Energy as opposed for Mr Hughes the former mines inspector and you've already had evidence of his absolute independence from the company today. I just flag a concern, and you might recall from Dr Elder yesterday, a concern as to whether one of those incidents was accurate and I've raised that with my friend and the company's not trying to conceal that, it is just there is a concern as to whether it was correctly put and I don't suggest my friend was trying to mislead the Commission yesterday, and I've raised that with my friend and I voice that concern again. I'm in the Commission's hands obviously as to whether –

THE COMMISSION:

Well is the concern not met by what Mr Hampton has just said that he will abstain from questioning about the specific incidents that were gone through with Dr Elder yesterday and rather will conduct what I think he described as a generic type.

MR STEVENS:

If it is hypothetical –

THE COMMISSION:

Yes.

MR STEVENS:

That satisfies my concern sir.

THE COMMISSION:

Right. So are you seeking leave or not, or are you simply –

MR STEVENS:

No, I'm not seeking leave to cross-examine my witness sir.

THE COMMISSION:

No. You'll have a right of re-examination.

MR STEVENS:

A. Yes, thank you sir.

THE COMMISSION:

Is there anybody else. Right. Mr Wilding, I know you're going to question this witness on behalf of the Commission and I'm wondering whether the appropriate course is not for that to occur, or you to make a start on that and then other counsel, Mr Hampton for example has said that he has been preparing as he's listened to the brief, and it may be that it's a convenient course for you to go first. Are you in a position to do that?

MR WILDING:

Certainly sir.

THE COMMISSION:

Well we're going to proceed by asking Mr Wilding to begin. That will provide a buffer before, or the lunch hour is a buffer before anybody else will be called upon. Leave is granted to Mr Hampton, Mr Davidson and Ms McDonald to examine the witness. In terms of content, I do not think it is practical for the Commission to rule in advance. You have given us an indication, if we feel you are trespassing we will say so.

MR HAMPTON:

And indeed sir, some of what Mr Wilding elicits may well cover the ground -

THE COMMISSION:

Yes, it could do.

MR HAMPTON:

- that I anticipate that I might have done other, right sir, thank you.

THE COMMISSION:

Ms McDonald, as far as filing evidence in reply is concerned, leave must be given, there's been no opportunity before now to do so and you will need to just follow the process in the practice note which contemplates that we will see the brief that you're wanting to put in and we will grant formal leave at that stage but I doubt very much that will be a problem given the content that you are seeking to respond to.

MS MCDONALD:

Thank you sir.

1245

CROSS-EXAMINATION: MR WILDING

Q. Just a preliminary matter, I shall refer just on a couple of occasions to the summation number of the statement of Mr Hughes. Due to its recency that document hasn't been placed into trial director so I'm referring for the record and the document won't be shown on the screens before you. I'll start by referring to summation number SOL347124/5 which is page 4 of Mr Hughes' witness statement. Mr Hughes at paragraph 8 you have outlined the structure of the inspectorate under the Coal Mines Act '79, which in essence involves a Chief Inspector of Coal Mines, plus an electrical and mechanical inspectors in Wellington and then inspectors of coal mines within the districts. First, did the district inspectors report to the chief inspector?

A. Yes they did sir.

Q. And am I right in understanding that the chief inspector is someone who had expertise in mines and mining?

A. In coalmining sir, yes.

Q. Are you able to outline the nature of their expertise?

A. Yes I can sir, it was very wide ranging. There had been a requirement put on some years previous where that any inspector had to be the manager of a large mine in New Zealand prior to appointment. The requirements around that, that mine had to be of some complexity and

quite often that mine was Strongman because they had both gas and was liable to spontaneous combustion. Chief inspectors are seldom appointed to the position unless they'd been through a mine similar to Strongman Mine. What that did sir, was given them an extremely good background in understanding the, the vagaries of underground mining. Problems could be thrown up at the, at the manager at any time of the night or day and they certainly had that expertise to deal with those things sir.

Q. From the perspective of an inspector of coal mines, what were the benefits, if any, of reporting to someone with that type of expertise?

A. It allowed for peer review. The district inspectors always prepared a report of every inspection they'd carried out during the previous month and put it up to the Chief Inspector of Coal Mines, that peer review allowed for a more robust outcome of any of those inspections. Regularly the chief inspector would contact the district inspector involved to raise a question on his report and may offer advice or direction regarding that inspection.

Q. Are there any other benefits of that structure?

A. Yes sir, I think there was in terms of a group of like-minded people operating in the same group and the fact that the chief inspector had access to a wider forum of like-minded people through the chief inspector's conference in Australia.

Q. Were there any disadvantages to that structure?

A. Not to my knowledge sir, no.

Q. At paragraph 14 of your witness statement, the same summation document ending 7, you have referred to the role of the inspector of coal mines in relation to licensing. Is a license the equivalent of what nowadays is called a permit issued under the Crown Minerals Act?

A. I believe so sir, yes.

Q. And did that role that you describe in that paragraph apply to the range of licenses or permits including, for example, prospecting and mining permits?

A. Yes it did.

1250

Q. Are you able to describe the role that the inspectors of coal had with the granting of permits?

A. It was a review role, sir, and that they would receive the application, they would go through it and comment on the financial ability of the applicant to carry out the programme of work that was proposed under that licence. Further they were, it was commented on whether they were a bona fide applicant in terms of somebody intended to do something with it rather than sit on it for the future as a money in the bank if you like.

Q. What information was provided with the licence application to enable them to conduct that assessment?

A. It was quite varied. It may be a company prospectus. It may be a list of machinery demonstrating the ability to do it. It may be the existence of a workforce with the expertise in how to carry out the proposed activity.

Q. Would the application for a licence go to the coal mine inspector in the region to which the application related?

A. Yes, sir.

Q. And would that coal mine inspector have a knowledge of the geology of the area?

A. In so far as his training allowed a coal mines inspector is not a geologist but only in so far as if he was aware of it.

Q. What type of knowledge would the coal mine inspector have that might be relevant to the evaluation of that application?

A. He would have access to a number of maps in his office, importantly cadastral maps allowing him to determine whether or not there were any overlaps with other privileges that were existing in the area. He would also have access to geological reports indicating whether or not the prospect of that licence bearing any useful coal or not could proceed. He would also have a pretty good knowledge of the access to that area and whether or not it could be easily accessed.

Q. In your view were there any benefits in having a inspector of coal mines with that knowledge involved at that application stage of the process?

A. Absolutely, sir. I saw it as essential.

Q. Are you able to explain why please?

A. Because the applicant had the, I guess the luxury of being able to run his proposal past an independent person who could make or really assist in the passage of that licence through the, through the Ministry of Commerce or the Ministry of Energy wherever it sat at the time. By steering them in the right direction and ensuring that if there was any possibility that it would succeed, it would do so. If there was any possibility of it failing they would know from a pretty, from the outset.

Q. Did the mines inspectors raise with the applicants issues related to the design of the mine or health and safety in the mine or?

A. Yes, sir. The issues raised were pretty comprehensive. If there was a mine layout there inevitably the inspector would comment on it.

Q. Are you able to give us an indication of the range of topics about which an inspector might comment at that application stage?

A. Oh, yes, I can. As I, as we mentioned earlier a little about the geology and if I could just elaborate there for a moment, sir, the, I'm just thinking of the Reefton Coalfield here. There were many instances where applications may contact the alluvial gravels that overly at the coal seam. Those gravels were known to be a hazard to coalmining if they are contacted and from that respect the facies maps of the area were extremely important. Secondly, from mine design the inspector was able to provide advice on ventilation, perhaps even on mining method and identifying any other hazards that may be needed to be considered at the start of the application.

1255

Q. As a result of those types of comments, were applications ever modified in any way before they were considered again?

A. Yes sir I believe so. If you would just bear with me, it is a long time since I've dealt with any licensing matters.

Q. Can I just please turn to the issue of the frequency of inspections which you've raised at paragraph 13 of your brief, summation document

ending 6, and this is the frequency of inspections under the Coal Mines Act 1979. Is there any particular approach taken at that stage to assessing how frequently a mine should be inspected?

A. Yes there was sir.

Q. Can you describe that approach please?

A. The approach for mines with more apparent hazards such as spontaneous combustion or methane gas tended to attract a greater frequency of inspections than those that didn't have those attributes.

Q. Are you able to give an indication of the frequency of the inspection of a mine which did have those gas issues?

A. For smaller mines sir it was monthly and almost inevitably monthly, for the larger mines, the mines that I mentioned in my brief, such as Strongman, Liverpool, Huntly East and West, it was weekly.

Q. Are you familiar enough with the Pike River mine to say whether it would've been regarded as a small or a large mine?

A. No I'm not sir.

Q. Are you able to give an indication of the basis upon which a mine is determined as being small?

A. There are a lot of very hole in the wall type operations, I shouldn't say that, private mines around Reefton and Waikato, Buller and Grey Districts at the time. The workforce was generally between five and seven men. Their annual output rarely exceeded 5000 tonnes so the development and extraction in those mines was fairly small. That didn't detract from the fact that things could go wrong and sometimes did at those mines.

Q. Well would you be able to say if the projected tonnage of a mine was for example more than 100,000 tonnes per annum whether that would be regarded as small or large?

A. I would suggest large in the context of the New Zealand coalmining industry. The reason I say that is because there was a guidance I think under the Coal Mines Act, it might've been under the regulations in terms of the submissions of work programmes and plans and for those small mines and I just can't recall what the tonnage was, it may have

been 100,000 tonnes, sir, the requirement was to submit plans on a six monthly basis and for coal mines with a tonnage above that threshold that was in statute it was on a 12 monthly basis.

Q. And a mine such as Spring Creek presumably would be regarded as a large mine?

A. In the context of New Zealand coalmining sir, yes.

Q. And in terms of the regime under the Coal Mines Act 1979 that mine would've been inspected weekly?

A. Yes, sir, I believe it would have.

1300

Q. What was the basis for the distinction between the frequency of inspections of large mines and small mines?

A. It was really about the ability of the inspector of coal mines to be able to comprehensively inspect all parts or sections of the mine at a single attendance. For example, to inspect all of the seals, the workplaces, the travelling roads and the airways at Spring Creek Mine in a single day is not really possible.

Q. Are you able to estimate how long it might take to inspect the whole of the underground workings of a Spring Creek?

A. I would suggest to do it thoroughly it would take three or four days.

Q. Over the course of weekly inspections in a mine such as Spring Creek, would the inspectors seek to inspect all of the underground workings of a mine?

A. Sorry sir could you rephrase that?

Q. In the course of the repeated weekly inspections, would inspectors seek to inspect the whole of the underground working?

A. Sequentially, yes.

Q. So, for example, if it took three to four days to inspect those of a mine such as Spring Creek, does that mean that in a one month period an inspector might seek to have inspected all of those workings?

A. That is what I would undertake to do sir yes.

Q. Did the mines inspectors undertake any analysis to determine whether certain large mines or certain small mines should be inspected more frequently than others?

A. Not formally sir, no.

Q. Was there any analysis of whether a particular mine might pose a high level of risk than another mine?

A. There was.

Q. How was that undertaken?

A. It was undertaken normally in discussion with the chief inspector, if there were repeated incidents at a mine, it may increase the attention of the inspectorate in terms of going there to inspect the place or for dealing with the mine manager of the, of the particular mine.

COMMISSION ADJOURNS: 1.03 PM

COMMISSION RESUMES: 2.01 PM

MR STEVENS:

I wonder, sir, if I could just correct one brief matter and it's over the document that was produced and I got the order back to front so I wonder if just for the record I could correct it, sir, before my friend continues in terms of the two versions of the page 4 of the document known as, "Hughes' review 070894."

THE COMMISSION ADDRESSES MR STEVENS – ORDER OF PAGES BACK TO FRONT – TO BE AMENDED IN RECORD

CROSS-EXAMINATION CONTINUES: MR WILDING

Q. Mr Hughes, we had been talking about the frequency of inspections and I understand from that that one of the benefits of weekly inspections of larger mines is it enables you to get around all of the mine?

A. That's correct, sir.

Q. Are there any other benefits to inspections being with that type of frequency?

A. I believe so, sir. I think what it does is allow it to be inspected to become familiar with the operation so that it's better to understand the problems that may arise in the future.

Q. How does that help?

A. Well by having an understanding in an operation if you are contacted by, normally be by the mine manager, you are better able to assimilate with that problem at the time rather than having to spend, waste a lot of time with the problem when you get to the operation, when you get to the mine.

1403

Q. Evidence may be given that large mines or gassy mines are now inspected approximately once every three months. From your perspective would you have any concerns about that frequency of inspection?

A. It's not what would've occurred during the period when I was an inspector of coal mines sir, but I can't comment on the rationale for doing that.

Q. Could I just turn to other circumstances in which you might visit a mine. If you became aware that a mine was closed, either temporarily or permanently, would you visit it?

A. Not necessarily sir. You would ascertain the reasons why that had occurred. If it had been closed temporarily for an event such as a spontaneous combustion event or something like that most certainly you would be there. If it had been closed temporarily for economic reasons, probably not.

Q. How would you find out that a mine had been closed?

A. Through notification, there was a provision under the Coal Mines Act 1979 to notify inspectors of coal mines, on the state of those mines but not only that, as a district inspector the district inspector always had an awareness of what was occurring in the mines around the district. He might be inspecting up to 25 or 30 mines and I'm talking now about 1987. He was inevitably aware what was occurring at those mines.

Q. And under the '79 regime were you also required to be notified of accidents?

A. That's correct.

Q. How would those notifications be made?

A. By a variety of means, sometimes after the event by a letter to the inspector, normally by telephone. In my experience as an inspector I found that my managers were always prompt in reporting any accidents or incidents that came under the reportable list in the Coal Mines Regulations.

Q. What would you do in response to those notifications?

A. Inevitably sir I'd attend the mine.

Q. Are you able to say how soon after a notification you would usually attend a mine?

A. It was as soon as possible. I've had occasion when I've been notified of a fatality or two fatalities when I was in the North Island so my ability to

get there was curtailed. It took me probably 18 hours to get there because of the distance or travel arrangements. Conversely any other notifications such as we did have from time to time we would attend them straight away.

Q. Would it have been unusual to take as long as 18 hours to attend after an accident notification?

A. Yes sir, it would.

Q. What was the purpose of attending within that timeframe?

A. Really to ascertain right from the outset what had happened, what had gone wrong and really to be able to capture the statements from the people involved as soon as possible.

1408

Q. Could I turn to the same summation document ending with the number 7 and this is paragraph 15 of the witness statement. Mr Hughes, would have referred in there to a requirement that licence holders submit a mine plan every 12 months or six months for the larger mines. First, why was it that lesser period of six months in the case of the larger mines?

A. It was really a requirement by – either by regulation or by statues, I can't remember which, I think we touched on this earlier, but there was a tonnage definition on where a mine had to produce a work programme every six months versus every 12 months. I'm not sure what that threshold is sir, but it certainly existed and that was what drove that requirement.

Q. Was there any purpose to that requirement that you're aware of?

A. Yes my understanding was that the larger producing mines were moving quicker, if you like, extracting quicker, disturbing more countryside or developing into more countryside much faster than what the others were.

Q. Are you able to describe the type of detail that was shown on the mine plans that were submitted?

A. The detail that was required sir was again required as a part, I think of the regulations, it was quite extensive. It included certainly the 10 year

boundary; it included all workings of the coal mine. It included the location of telephones, it included the location or sorry the direction of airflow and the location of fans in the mine.

Q. And did it include the current workings?

A. Yes sir.

Q. Did it include the location of emergency equipment?

A. Yes sir, insofar as first aid equipment, it was shown on the mine plan.

Q. What was the purpose of those plans being submitted?

A. To give the inspector of coal mines a, a brief if you like, on what was occurring and whether that was consistent with the requirements of the Coal Mines Act and Regulations.

Q. And were they submitted to the district inspector or to the chief inspector?

A. To the district inspector.

Q. What would the district inspector do in response to those?

A. He would always acknowledge them back to the person who submitted them. In that letter of acknowledgement he may raise some queries about what was on the mine plan or any deficiencies within the mine plan and then he would copy that letter along with a copy of the plan to the chief inspector.

Q. And what would the chief inspector do in response to that?

A. He may raise similar sort of concerns if they haven't been covered by the district inspector.

Q. Was there approval of either of the district inspector or chief inspector required before the work shown on those plans was done?

A. Yes sir.

Q. Was there approval of any other regulatory body required before the work done on those plans was undertaken?

A. Yes sir. The, the approval as I recall it under the Coal Mines Act 1979 was the role of the secretary of energy I think at the time. The approval given by the inspector of coal mines or the Chief Inspector of Coal Mines was under the conditions attached to the license where reference was made to the inspector of coal mines.

Q. You have referred to the regulations, what regulations did you refer to when receiving mine plans?

A. In what context sir?

Q. For the purpose of consideration of the work for the upcoming six or 12 month period.

A. The Coal Mines Mine (Management and Safety) Regulations 1980.

1413

Q. And on receiving the mine plan would you go through each regulation to ensure that the mine plan was consistent with that regulation?

A. As a general rule, yes, we would check the plan against the requirements of the regulation.

Q. You have also said in your brief that there would be reference to whether the intended development indicated sound mining practice?

A. That's correct.

Q. What did you mean by, “Sound mining practice?”

A. Several things really sir. The maintenance of barriers between workings in mines that are prone to spontaneous combustion and gasing ions**.** The provision of sufficient airways to ventilate the mine and the pillar size to ensure or to avoid premature failure of pillars.

Q. Does that mean that in considering sound mining practice you had regard to matters that would help ensure the health and safety of the mine and its workers?

A. Yes sir. Those things that I mentioned are really an inherent part of it. The maintenance to the barriers, for example, without barriers between working sections may give rise to spontaneous combustion, which is usually indicated by carbon monoxide, which is very dangerous to personnel.

Q. Do you think that the concept of sound mining practice can be separated from the concept of health and safety?

A. Absolutely not.

Q. Why do you say that?

A. Because the mine design is done for purposes of safety. For example, pillar sizes, the pillars are too small they’ll simply collapse, premature

roof failure. And also because the size of roadways, or the amount of air circulating in them is essential to persons health.

Q. Can we just take a couple of examples. You had referred to the airway ventilation of the mine. What would you do if, from your review of the mine plan, there was a concern about whether that ventilation was adequate?

A. The first action to be taken sir is to contact the operation and speak to them about the concern and how that could be rectified.

Q. When you say, "Operation," do you mean the operations of the mine?

A. Mine.

Q. And would that sometimes involve visiting the mine?

A. Yes it would.

Q. What happened if as a result of that conversation, the problem still hadn't been rectified to the satisfaction of a mines inspector?

A. The mine could be closed down until it was rectified.

Q. Are you aware of circumstances where a mine had been closed down because problems apparent from a plan of upcoming work hadn't been attended to?

A. Yes I am.

Q. More than one occasion?

A. No sir.

Q. Are you able to, without identifying the mine, describe the particular issue that caused it to be closed down?

A. I wasn't the inspector involved sir. The operation was in Inangahua Coalfield. The inspector was a colleague of mine so I am not fully familiar that. I'd prefer not to try and describe it because I'd (inaudible 14:17:16) it up.

Q. If I can just take you back a bit then to the licensing process, to which we referred earlier. If there was a problem apparent from the plan submitted during that licensing process would a similar approach be followed?

A. Sir, with a licensing process it precedes the operation. The process would be followed, I think I covered earlier that as an inspector you

would deal with the applicant and point out the shortcomings in his application.

1418

Q. If there was a shortcoming that caused serious concern for the health and safety of workers if it was put into practice, would that be something which might cause the licence not to be issued?

A. Yes, sir.

Q. Are you aware of whether licences were ever not issued because of such concerns?

A. No, sir, I'm not.

Q. Just while we're on that licensing process, were there any other entities who had to be involved in the licensing approval process aside from the coal mine inspectors?

A. Yes, there were. I can recall personnel from Crown Minerals I think it was at the time, coming into the district and I personally took them around to those areas under application so they could better see for themselves the, the process was quite thorough.

Q. Whose responsibility was it for actually approving a licence application?

A. Crown Minerals Group is in the period that I'm talking about.

Q. And the period you're talking about is under the Coal Mines Act 1979?

A. Yes, sir.

Q. Did the involvement of the coals mines inspectors at that stage rise to the level of a veto for example of approval?

A. It could've got to that but it never did in my, in my experience sir.

Q. If I could take you please to paragraph 16 of your brief summation, number ending 8. You have referred to the Chief Inspector of Coal Mines as being the Deputy Chairman of the Board of Examiners, can you just describe the role of the Board of Examiners?

A. The Board of Examiners was a body of representative people set up under the Coal Mines Act for the purpose of examining, sorry I'll rephrase that, it was set up for the purpose of examining personnel for certificates in mining. Now I'm getting a little confused because I was involved in two Boards of Examiners, one was under the

Coal Mines Act 1979, one was an administrative arrangement after the Coal Mines Act had been repealed. The original Coal Mines Board of Examiners was set up with representative people from the coalmining industry and a number of experts such as the chief surveyor, a geologist, who could provide input into the various examinations that were required for the certificates of competence that were available under that Act.

Q. Can you just describe what was meant by an administrative arrangement after the Coal Mines Act?

A. That's what I touched on earlier, sir. The, after the Coal Mines Act was repealed, there was no instrument for candidates for statutory certificates to sit examinations or to offer themselves for examinations. It just didn't exist, it was, there was nothing put together. It was a decision made by the Ministry of Commerce to provide that facility and so it was put together administratively rather than using a legal instrument to do it.

Q. Are you able to give us an indication of what year or timeframe this would've been?

A. I do have the correspondence, sir. I would suggest it was around 1991, '92, probably 1992 I think.

1423

Q. Do you know how long that lasted for?

A. Not exactly, it lasted until the extractive industries training organisation gained momentum and became the body under the health and safety at Mining Administration Regulations to issue certificates. The exact date of that, I don't know.

Q. Is that a body which is sometimes referred to as EXITO?

A. That's correct.

Q. Are you able to say whether there were any benefits of the Chief Inspector of Coal Mines being on the Board of Examiners?

A. The benefits I think from the Chief Inspector of Coal Mines being there, particularly in the administrative board, was to oversee the curriculum, if you like, which had been lost by the return of the Act, to ensure that

those parts or subjects were maintained for examination and to ensure they weren't lost, and also to provide for the examination or to obtain the examiners and to keep the facility going.

Q. Under the 1979 Act were there any benefits stemming from the chief inspector being on the board insofar as standards were concerned?

A. I believe so sir, it provided a certain consistency through examinations for candidates from year to year.

Q. You've referred to certificates of competence. What was the first or lowest level certificate that would be issued by the Board of Examiners?

A. Mine deputy certificates were examined for - at district level and the recommendations from the examiner is usually the inspectors from various districts would examine those people. They would compile the list of successful candidates, record that through to the secretary of the Board of Examiners and the successful candidates would be approved by the board for issuing of a certificate.

Q. Were there any certificates in relation to knowledge of gas and its hazards?

A. At the level of the board?

Q. Yes.

A. Yes there was because the board's had an examination and I personally sat it myself many years in ventilation.

Q. What was that certificate called?

A. For a first class certificate and it was also a ventilation subject under your certificate.

Q. You've referred to EXITO, what's its role?

A. Currently sir?

Q. Yes.

A. It facilitates the training for the extractive industries broadly. It has set out the unit standards that are required to be passed in order to obtain statutory certificates. There is a very extensive list that has grown up over the years and in my understanding now, as I mentioned earlier, is

that it has become the issuing body, the statutory body to issue those certificates.

Q. And I see that you've been a registered assessor for EXITO in 1997?

A. That's correct.

Q. Are you able to make any comment about the effectiveness of EXITO in discharging that role?

A. Yes sir. Initially in having been a member of the Board of Examiners, having seen the effect of the holders of certificates coming through I felt that the system we had was effective, so I was a little bit cynical for a start, but having seen the development of EXITO and the quality of some of the training that they have offered I changed my view. I support what they do. The only problem I have is the evaluation of information by individuals rather than by a board or the examination if you like, but in saying that EXITO still retains the right to perform a group or committee for the purpose of a professional conversation I think it's called these days, to ascertain knowledge of a candidate under subjects and I've been part of those groups to perform those professional committees.

1428

Q. Can you just explain a little bit more what you mean by, "Evaluation by individuals not a board"?

A. I'll just step back to the previous modus operandi if you like of the Board of Examiners. It was to set examinations, written examinations, usually of three hours duration. If a candidate was successful he would be asked to come back and meet with usually three members of the board and undergo an oral examination in that subject.

Q. And under EXITO?

A. I believe that a similar system has evolved, it's taken a while to happen, but a somewhat similar system has evolved through what is being called, "A professional conversation."

Q. What's the lowest level certificate issues by EXITO?

A. They issue all mining certificates down to gas testing certificate.

Q. What's a gas testing certificate?

A. It's a certificate to show that the holder has a proficiency in testing flammable gas. The curriculum goes much wider than just for flammable gas, it goes to all gases that are found in coal mines these days and it provides the holder or demonstrates that the holder has the skills in detecting those gases and how to deal with them.

Q. In a gassy mine, how important would you say it is to have such a certificate?

A. It is essential sir for certain members of the staff to have that certificate.

Q. Do you know what proportion of the employees who work underground in Solid Energy would have that certificate?

A. Yes I do sir.

Q. What?

A. Now I can speak for Spring Creek Mine only.

Q. Please do.

A. 71% of the workforce has a gas testing certificate that is broken down by 73% in mine services. Mine services are the group of people who work back-buy providing pipes, flumes, things like that. 70% of those involved in extraction have a gas testing certificate. They are the people who extract the coal, do the pillaring if you like. 73% of the people involved in development have a gas testing certificate, they are the people who drive the mine roadways and 64% of the trades, electricians and fitters and maintenance people have a gas testing certificate.

Q. Thank you. You just referred to back-bye, could you perhaps explain what that means?

A. Back-buy sir means any area that is not within the immediate face area.

Q. So underground but not the face?

A. That's correct.

Q. If I could take you to paragraph 17 of your witness statement, same page summation ending 8 and you've referred to, "Electrical inspectors", are you able to explain what their role was?

A. Yes sir, electrical inspectors are appointed, I think I might've mentioned earlier in my brief, following an electrical fire which caused 11 fatalities at Glen Afton Mine in 1939, and out of that enquiry resulted in electrical

inspectors who would attend mines to ensure compliance with their wiring and electrical installations.

1433

Q. Did they have specialist electrical qualifications?

A. Yes sir, they were generally electrical engineers.

Q. How often would they visit a mine?

A. From my experience sir, twice year. I can't be more precise than that because it would really, it's an observation going back 25 years ago almost.

Q. And were they based in Wellington?

A. Yes sir.

Q. How many were there?

A. There was one electrical inspector.

Q. And you have referred to mechanical inspectors. What are their role?

A. Their role became more important as time went on and technology improved in the mines when mechanical mining machinery is introduced and to ensure that it complied with the appropriate standards that were pretty well advanced in Australia at that time but certainly not in New Zealand.

Q. How many were there?

A. There was one.

Q. What sort of qualifications and expertise did the mechanical inspector have?

A. He would be a mechanical engineer.

Q. Based in Wellington?

A. Yes.

Q. And how often would he inspect a mine?

A. Again sir, I'm tempted to say every six months, it could be at a greater frequency or a lesser frequency, I'm just not certain given the amount of time that's passed since I was involved in it.

Q. Did those inspections by the electrical and mechanical engineers occur in the presence of a coal inspector?

A. Usually they did.

Q. Were there any benefits to that?

A. Yes there were.

Q. And what were they?

A. The benefits were that the specialist inspectors, the electrical and mechanical inspector could gain a lot of insight, or a lot of understanding, from the district inspector on the operation of the mine, the machinery, electrical or mechanical, that was used to operate that mine, any history of problems that they'd had with that machinery, and even sometimes to the extent of where that machinery came from, and any approvals that may or may not be applicable to that machinery.

Q. Could I perhaps give a specific example of something which has both electrical and mechanical features to see who would look at it. And the example is a ventilation fan. Would an electrical inspector inspect a ventilation fan?

A. Yes he would.

Q. And the purpose of that would be what?

A. To ensure that the wiring and the arrangement of the motor pulleys, the transmission of power if you like to their fan blades was, did not exceed the capability of the motor.

Q. Would it also be inspected by a mechanical inspector?

A. Yes sir.

Q. What would be the purpose of that?

A. To ensure that the dynamic load that was put upon the foundations or bearings or cowlings or housings on the fan didn't exceed the design of the fan. To ensure that it'd hold together when you put power on it if you like.

Q. Would it also be inspected by a coal inspector?

A. Absolutely.

Q. And what was the purpose of that?

A. To ensure that the fan was performing to the design and it wasn't exceeding that design, it wasn't in a mode of stall, and it was passing the quantity of air that was it was necessary to ventilate that mine.

Q. In assessing those matters would a coal inspector have regard to any documents showing the design and performance aspects of the fan and ventilation system?

A. Not necessarily.

A. If I could just turn to the conduct of inspections and ask you to describe

Q. how an inspection was conducted under the Coal Mines Act 1979?

A. What page are we on sir?

1438

Q. Well we're not at the moment?

A. Oh, okay all right. The conduct of an inspection it would normally start with a courtesy call to the mine owner or the mine manager to arrange a time to meet with him to carry out the inspection and the purpose of the call rather than cold calling is to ensure that the people you want to be there are there when you arrive or to ensure that the mine is actually operating when you get there. Upon arrival at the mine there is inevitably a conversation with the mine manager on the current state of workings on what is happening currently. Normally I found that the mine managers would volunteer that information and they would give you all the problems of the day and really very forthcoming I found inevitably with any mine managers that I dealt with. You would follow a perusal of the mine plan. The mine manager would take the inspector through the mine plan and show him what was happening in the mine, where it was happening, the extraction that was taking place, the developments taking place, any seals that might have been constructed in the interim to give the, the inspector an update on what had happened since the previous inspection really so that he had a good understanding of what was going on. Following that there'd be an underground inspection. The mine manager would accompany the, the inspector underground. He would go to, depending on the size of the mine, he would go to most working places. A mine like some of the larger mines, Strongman Mine for example, you physically couldn't go to all the working places in a single attendance as I've referred to in my brief. He would examine all the seals in that section to ensure that they were intact and the sealers

were all across a roadway to prevent the ingress of air or egress of air whichever the case maybe. He would converse with the miners. He would converse with the mine officials, not really to illicit information, it was really to gain understanding of their comfort or discomfort with the current situation at the mine and he would return to the surface. When he returned to the surface he would complete a note to the mine manager and what he'd seen, a defect notice. It may simply state the fact that he'd gone underground and visited a certain section and that all was in order. It may also state, alternatively it may state that there may be some requisitions, there may be things wrong that he wanted rectified. Following the departure from the mine and return to the inspector's office he would prepare a note for his monthly report. That note would name the mine. It would name the licence number. It would name the mine manager and it would name any of the requisitions that had been put on the mine manager that day.

Q. Can I just interrupt you there? What is a requisition?

A. A requirement.

Q. A requirement to do something?

A. Yes, sir.

Q. Related to health and safety?

A. Yes, sir.

Q. Carry on please.

A. Following that if there had been any requisition issued he may follow it up with a letter on departmental letterhead with a copy to the Chief Inspector of Coal Mines.

Q. You refer to speaking essentially to workers at the mine to get a feeling for their comfort or discomfort. Why was that done?

A. There was an informal discussion, sir, bearing in mind the inspectors and certainly inspectors such as myself who had been in the industry for a good number of years personally knew most of these people that operated in these mines around the district, indeed around the country so it wasn't difficult to strike up conversation with them. Most miners are pretty forthcoming, if they have a problem they tell you and it wasn't

really trying to illicit information behind the mine manager's back because he's usually standing right on your shoulder. It was really out of politeness and to understand that they knew what they were doing.

1443

Q. Right. When you say understand that they knew what they were doing you mean understand whether the workers down the mine knew what they doing?

A. Yes, that's correct.

Q. Doing in what respect?

A. Whatever the activity might be at the time, coal production, stopping construction, pro-extraction, whatever that activity may be.

Q. What would you do if you were concerned that they didn't know what they were doing?

A. I'd speak up immediately.

Q. And when you say knowing what they doing you're really talking there about the experience and knowledge of the miners, are you?

A. I'm talking about competence sir, yes.

Q. So was this one of the ways of assessing the competence of those who worked down the mine?

A. It wasn't really the inspector's role to assess competence. The – I'm just trying to think what statute it is in, I think it is under the regulations that there was a requirement for inexperienced people to be put at work on a coalfield for at least 200 days before they could be deemed experienced. I could be corrected on that but to my recollection that is, I think that's correct.

Q. So it was part of the process to test whether they had that required level of experience and competence?

A. Yes sir.

Q. Why is it important that there be experienced and competent people down a mine?

A. Sir, in my experience in coal mines they're very unforgiving places. People who are unfamiliar with that environment have the potential to get themselves into trouble very quickly, whether it's through

unsupported roof, i.e. roof collapse, whether it's through methane, i.e. ignitions of methane, whether it's through lack of oxygen, i.e. black damp, whether it is through unstable ribs, it is the ability to recognise these things and deal with them before they cause harm and that is what I'm talking about sir, as experience in coal mines.

Q. As part of your inspections under the 1979 Act would you take samples anywhere within the mine, for example of the coal dust or the atmosphere?

A. Yes sir.

Q. With what type of frequency, for example, on each visit or what?

A. Not necessarily, it depended on the circumstances at the mine and it depended on the conditions in which the mine was operating and what I'm getting at here, if it was a mine prone to spontaneous combustion we would take air samples, in other words we'd analyse the atmosphere using, in those days, a Drager multi gas detector, stain tubes, looking for carbon monoxide and possibly carbon dioxide.

Q. Where would that testing occur?

A. Normally in return airways.

Q. And would records of the results of those be kept by the mines inspectors?

A. Yes, they'd be recorded in the weekly report, in the reports for the mine, for that inspection.

Q. Would the inspectors ever look at that information to see whether there were any particular trends developing in relation to, for example, carbon monoxide?

A. It depends on the frequency of the inspections sir, there wasn't really the opportunity for inspectors to do that because to trend carbon monoxide, it is desirable to have samples at greater frequency than the attendance of the inspectors at the mines. Here I'm talking about either daily, three hourly, six hourly, much closer together than what an inspector could provide.

1448

Q. Are you aware that under the current regulations a mine can be regarded as a gassy mine if it's got a certain level of gases for three days in a row?

A. Yes I am.

Q. Was that the case under the 1979 Act and Regulations?

A. Not at that level sir no.

Q. Were the coal inspectors ever involved in assessing whether a mine was a gassy or a non-gassy mine?

A. I don't recall any specific incident where they were that is not to say that that didn't happen.

Q. So was that classification essentially determined by tests that were undertaken by or on the request of the mine operator?

A. I think what happens in fact is that the inspector would be aware of the presence of gas at that mine or may detect gas at that mine and make a ruling accordingly. Personally I never did it, I'm aware I think of two instances where an inspector was involved in that but the detail I don't recall.

Q. In the course of your inspections did you also look at records of any type that were held within the office at the mine?

A. Yes sir we did.

Q. Are you able to describe the types of records that you would look at?

A. The records were normally a daily inspection report, pre-shift inspection report, a weekly report by the mine manager, a record of men who had entered the mine and left the mine, a record of the fan pressures, a record of the – sorry, sir I'm trying to think of the right name for it, it's an electrical book, it just doesn't come to me at – if you bear with me it's been some years since I was involved in. I do recall my colleague, Harry Bell, when I was working at Strongman Mine some years ago coming to the mine as an inspector and the number of books that he had to go through and peruse at the time was probably about six inches high. There were a considerable number of records for the inspector to peruse.

Q. Would you ever do anything to try and ascertain whether those records were accurate?

A. Not normally sir, occasionally I would try and ascertain there voracity through taking atmospheric samples around the mine. But the gas levels in the mine can vary from hour to hour with the fluctuations of barometric pressure so the, the absolute values in the report books are what to take at that moment in time, they are quite volatile.

Q. Now just looking at the result of your inspection, am I right in understanding that one of the documents produced might be a requisition which is provided to the mine operator?

A. Yes.

Q. Did the inspectors ever inform the employees of the issues that had arisen as a result of an inspection?

A. Not formally sir no.

Q. Do you think that it would be helpful for employees to be made aware of safety issues that had arisen as a result of an inspection?

A. Yes I do.

1453

Q. To your knowledge do you know whether that issue was ever considered under either the Coal Mines Act 1979 or the Health and Safety in Employment Act 1992?

A. The communication of issues you mean sir?

Q. Communication of issues to employees?

A. For an inspector to accomplish it is a very difficult task. There's an expectation if there is an issue that is of a wider concern for the mine it would be communicated by the, to the mine manager.

Q. In other words under both regimes it's left to the mine manager to inform the employees of the concerns that have arisen?

A. Generally sir that is the case.

Q. Under either regime were there ever any inquiries made to see whether the mine manager was informing employees of the issues that had arisen?

A. I'll just explain a little bit better I think about how this was communicated. If there was an issue at the mine it would normally involve some personnel in some way. Those personnel directly affected would be aware of the concern or made aware of the concern, which would then be escalated through the mine manager by a notice. In answer to your question, "Would it be prudent to let all the workforce know," the answer is, yes. To me the responsibility for disseminating that information rested with the mine manager.

Q. Are you able to describe to what extent, if any, the inspection process that you have outlined under the Coal Mines Act 1979 differed from that under the Health and Safety in Employment Act 1992 during the times when you're an inspector or chief inspector?

A. I applied the same philosophies under both Acts sir.

Q. In summation document ending number 9, paragraph 19, you've said the following, and I'm just going to read it and then ask you please to explain what you mean by it. It's halfway down paragraph 19. "OSH, so O-S-H, officials gave a clear expectation that all inspectors appointed under S29 of the Health and Safety In Employment Act 1992 were to conform to the standard operating procedures developed for the purpose of ensuring workplace safety. This largely took the form of forwarding a standard set of requirements that were generic to any industry." First, are you able to explain what the standard operating procedures were?

A. The procedures that OSH had for workplace inspections were generic across all workplaces. There were protocols as I recall for inspections. Of particular importance was the avoidance of advice or direction to mine operators as it may not be the view of Department of Labour and may compromise them if that advice didn't turn out as planned. Turning briefly to the audit document. My recollection is that there was an audit document developed to ascertain health and safety procedures at any workplace, which it also applied to mine sites. There was nothing wrong with that document. It was generic to anything and my recollection of the exact content of it is gone with the passage of time. I applied that

document but not as the sole means of ascertaining health and safety compliance at a mine.

1458

Q. You referred to advice, are you able to describe the advisory role that inspectors had under the Coal Mines Act 1979?

A. Yes, sir, I can probably provide, well I can provide the evidence on the sort of advice that was given particularly with submitted mine plans. When mine plans came to the inspector they were clearly acknowledged to the mine operator and any suggestions that may improve the safety of the operation or the recovery of resource or simply the operation of the mine if you like, that was sent to the –

MICROPHONE ADJUSTED FOR WITNESS

CROSS-EXAMINATION CONTINUES: MR WILDING

A. Where was I sir?

Q. You were talking about mine plans and the advice given in relation to those?

A. Yes, advice was given freely and it was very often written back to the mine operators. It may be given verbally during a, during an attendance at a mine.

Q. Are you able to say whether that advice role was considered important by the inspectors?

A. I considered it very important.

Q. Why?

A. Because during the period I'm referring to mines were not always operated by holders of First Class Mine Managers Certificates. There was a period of time where mines could have been operated by permit holders which means that they had no statutory certificate at all or they were operated by Fireman Deputy Certificates which is the first step in the management ladder if you like. It's usually supervisor or supervisor level or mines could be managed by people with an Underviewers' Certificate which is superintendent level. People

managing mines with those lesser certificates did not really possess the skills necessary to run their mine efficiently in terms of some of the skills or some of the items necessary to do so. There have been a number of examples where that shortcoming has been identified and I understand now, I've only learned recently, that deputy certificates are no longer applicable.

Q. You were interrupted when you were talking about mine plans and advice being given in relation to those but am I correct in understanding that the crux of your evidence was that you were being discouraged under the 1992 Act from giving advice in relation to the mine plans?

A. Yes, sir.

Q. And that that advice would include advice that would bear on health and safety?

A. Yes, sir.

Q. And when you say “discourage” what do you mean by that?

A. There was a concern in the Department of Labour that advice given, operational advice given could be construed as an official view of the Department of Labour and had them liable if anything should happen to go wrong in the mine as a result of that advice given.

Q. And can you just clarify what’s meant by discouragement? What form did that take?

A. My recollection is having a conversation with the branch manager of occupation health, safety and health. The day when we’re going through typically what I would do during an inspection and how we would set out to assist, if you like, the managers of small operations who were managed by people with lesser certificates. That conversation culminated in just what I was saying. We need to be careful that the integrity or the department is not compromised in any way.

1503

Q. And about what year was this, can you recall?

A. About 2000.

Q. Are you able to say whether following that there was either a discontinuance or reduction in the giving of advice?

A. No sir I can't because I was only in the inspection, sorry, only in the occupational safety and health for a relatively short time so I don't know what happened after that.

Q. Yes, well can you just remind us again what time you were there for after the transition period?

A. Yeah, from late 1999 to January 2001.

Q. We had been talking about the auditing of the standard set of requirements. Did the Department of Labour under the Health and Safety Act 1992 require inspectors to check whether the requirements were being implemented by a mine?

A. What requirements are you referring to sir?

Q. The relevant portion in paragraph 19, middle, says that, “All inspectors appointed under F29 of the Health & Safety & Employment Act 1992 were to conform to standard operating procedures developed for the purpose of ensuring work place safety. This largely took the form of auditing a standard set of requirements that were generic to any industry.”

A. The question again sir?

Q. And the question is whether or not that auditing of a standard set of requirements involved checking whether those requirements were being implemented by a mine operator?

A. Yes it did.

Q. And are you able to describe that standard set of requirements?

A. Not now sir, no.

Q. We referred earlier to what would be done under the 1979 Act when you received notification of an accident and you had outlined that you would generally attend the mine and in essence do so as soon as reasonably possible. Was that still the case during your time as an inspector under the Health & Safety & Employment Act?

A. Yes it was sir.

Q. And during your time under that Act what was the frequency of an inspection of mines?

A. I made no alteration to the frequency that I'd conducted in earlier jurisdictions sir.

Q. Had the issue of the frequency of mines been considered within the Department of Labour to your knowledge?

A. My recollection is that the Department of Labour considered the inspection of coal mines to be excessive.

Q. Could I ask you to turn to paragraph 22 of your witness statement, summation numbered, ending 10. I am going to go slightly out of order in terms of the paragraphs. You say, "Whereas MOE and MIG inspectors would conduct proactive inspections of coalmining operations regularly as described OSH inspectors rarely attended coal mines other than to conduct investigations following accidents and incidents." I presume MOE means Ministry of Energy?

A. Yes it does.

1508

Q. And Mining Inspector Group is what's meant by MIG?

A. Mining Inspection Group sir, that's correct.

Q. What do you mean when you say, "OSH inspectors rarely attended coal mines"?

A. That's a personal observation sir that is really corroborated by conversations with other mine managers. From 1999 onwards until 2000, for two years I was the mine manager at Strongman Mine. The attendance of inspections during that period surprised me, or the lack of inspections surprised me somewhat. It just wasn't what I anticipated, the service I anticipated from the inspectors.

Q. Are you from any personal experience during your time under the 1992 Act, able to define what is meant by, "rarely attended coal mines"?

A. Are we still on paragraph 22 sir?

Q. We are.

A. Okay, OSH inspectors rarely attended coal mines. I was aware that the inspector of coal mines there was resident on the West Coast at the time; his attendance at coal mines to my knowledge in some cases is less than once per year.

Q. What time was this approximately?

A. Sorry?

Q. What year was this approximately or what year was it from approximately?

A. I think from 2001.

Q. Could we turn to the issue of the range of operations that were inspected and whether that differed between the two regimes and first under the Coal Mines Act 1979, what was the range of different types of operations that coal mines inspectors inspected?

A. Underground mines and open cast mines sir.

Q. Did they inspect quarries?

A. No.

Q. Did they inspect other tunnels?

A. No.

Q. Did they inspect types of underground or open cast mine aside from coal mines?

A. Metalliferous mines sir.

Q. And what is meant by that?

A. I'd be mining for gold, copper. Normally gold in New Zealand, but the answer to that is no sir, the inspectors of coal mines were exclusively employed to inspect coal mines, open cast and underground coal mines.

Q. During your time under the 1992 regime, what was the range of operations that was inspected by the inspectors of coal?

A. Personally sir? What did I do personally do you mean?

Q. Well both personally, but then we'll talk about more generally.

A. I remained exclusively an inspector of coal mines during that period of time.

Q. And what about the other inspectors who inspected coal mines, did they inspect other types of operations?

A. I believe that some of the inspectors inspected quarries, my certainty or my recollection exactly around that is not as good as it could be.

Q. Do you know whether they inspected tunnels aside from coal mines?

A. I don't know sir.

Q. If I could take you please to paragraph 21, it's the same page summation numbered ending 10. You've spoken there of the, "diminution," in the number of inspectors during the transition from 1992 to 1998. Are you able recall the number of coal mines inspectors there were in 1992?

A. I think there were four in 1992.

1513

Q. Are you able to recall how many there were at the cessation of the Coal Mines Act 1979?

A. Sir, I'd be guessing. I'll just go through it just for the sake of trying to gather my thoughts. I think there were two inspectors in Huntly. At one point there were two inspectors in Westport. There was one inspector in Greymouth and there was one in Dunedin, so that six I think. In addition to that was a Chief Inspector of Coal Mines in Wellington and an electrical and mechanical inspector in Wellington, as we've discussed.

Q. Are you able to recall the number of people who had responsibility for inspecting coal mines at the end of that transition, so 1998?

A. I think there were two, on occasion there was one.

Q. When you say, "you think", is that once again something dimmed by recollection?

A. That's the best recollection I have sir, yes.

Q. You have said in paragraph 21, two-thirds of the way down, and I quote, "The coal mines inspectorate diminished with a number of retirements and resignations taking effect. This reduction in the number of coal inspectors considerably increased the workload of those who remained." Did that have any impact on the frequency with which inspections were conducted?

A. Yes sir, inevitably it did. The import of that comment really is because I was the person affected and at one point I was carrying out inspections in the Waikato, in the Buller on the West Coast and into Southland.

Q. And previously how many inspectors would have been carrying out inspections across those areas?

A. A minimum of four. There would be at least four, one in each district. And as I've said earlier in my evidence, that occasionally there were two in some of the districts when the workload was too great.

Q. And did that impact on the frequency with which you would inspect mines in those regions?

A. The reduction in numbers sir?

Q. Mmm.

A. Inevitably it did.

Q. Are you able to describe that impact?

A. Yes, by recollection having to, I recall having to travel down to Ohio to assist in dealing with the spontaneous combustion event down there. It's something that was quite time consuming. It would've been dealt with by a district inspector of the day, had there been one, domiciled in the Southland/Otago area but there wasn't. It was quite time consuming and took me away from other duties.

Q. I want to turn to a different topic briefly. During that transition period did the coal inspectors have any role in the permitting of mines?

A. I believe we did, sir. I can recollect still having applications for permits forwarded through my office and I would deal with those permits the same as I would with anything else, just provide a recommendation.

1518

Q. And at that time those permits would've been considered by Crown Minerals?

A. That's correct.

Q. Does that mean that your recommendation would have been passed onto Crown Minerals for its consideration?

A. That's correct.

Q. You referred earlier in your evidence-in-chief to a document, paragraph 29, summation number ended 12 headed, "Review of the recommendations from the warden's inquiry into the accident at Moura Number 2 Mine, Queensland on Sunday 7 August 1994." You then on the next page summation number ending 13, paragraph 30, set out a recommendation. I want to read that recommendation to you and

then ask what, if anything, to your knowledge was done into response to it. This was the recommendation, "Given the incidents of past catastrophes arising from spontaneous combustion the review committee strongly recommends that the approval process for coal mines operating under a mining permit be clearly channelled through the inspector of coal mines to ensure that the appropriate level of technical expertise is incorporated into the approval process." Do you know whether any regulatory agency took any steps in response to that recommendation?

A. Yes, sir, I'm aware that with one mining company that it did occur at the instigation of that particular mining company. They met with Department of Labour officials and requested that their information be channelled through the inspector of mines' office.

Q. Are you able to say whether any regulatory body gave consideration to whether that channelling should happen as a matter of routine?

A. No, sir, I'm not.

Q. Are you able to say whether any regulatory body gave consideration to whether there should be some regulation or law requiring that?

A. I am unaware of, of any such moves that…

Q. I'd like to turn to a different topic which is the hazards that are present in a mine, both open cast and underground. Are you able to list for us the hazards that are presented by an open cast coal mine?

A. Very broadly, sir, yes, bench heights. Bench heights in, in open cast mines are a safety mechanism. If my memory serves me correct in the repealed open cast coal mines regulations 1986 the maximum bench heights were 15 metres. The reason being that it coincided approximately with the length of the dump trucks, if it went over the side it wouldn't go any further than the length of the truck. I believe that was the import of that, that regulation.

Q. Are you able just to describe for us what a bench is and what's meant by the height of the bench?

A. If, the bench is what the Commissioner is sitting on behind now. It's virtually exactly the same thing. It is a uplift in the ground and part of

the construction of the open cast. It may go up several times. It may go up 10 or 12 times. That is what a bench is. A bench is really to provide access to the working area of an open cast.

1523

Q. So the height is the difference between the bottom of the bench and the next bench?

A. That's correct, yes.

Q. Sorry, carry on?

A. Another consideration is bench stability which would have some impact on bench height. Another consideration is faulting and folding which has an impact on bench stability. Another consideration is access roads, bearing in mind that open cast coal mines in New Zealand can take some funny shapes because of the geological setting that we're in, inevitably steeply dipping coal seams and inevitably very steep access roads. Probably the only exception we have is Stockton which is flat by comparison with a lot of the open cast mines in Reefton for example. That broadly sir is some of the considerations in open cast coal mines.

Q. Are there any other significant hazards that you haven't referred to?

A. Yes, the construction of stock piles. It is important they're constructed to within an acceptable angle of repose, in other words they're engineered landfills rather than just dumped there because they stand the risk of failure if they're not properly constructed. The other aspect of open cast mining that we became quite involved in under the Coal Mines Act was rehabilitation of the mined out areas.

Q. Did that present a hazard?

A. No sir, it was a condition of licence to put the land back into some usable form.

Q. Are you able to list the hazards that are present in an underground coal mine?

A. Yes sir, I've touched on some of them during the course of the day, flammable gas we talked about, spontaneous combustion we've talked about, roof failure or premature collapse, inundation through flooding,

oxidation resulting in low oxygen, in other words black damp or free nitrogen which was a particular problem in parts of the Reefton coalfield.

Q. Are there any others that you can think of?

A. Off hand sir, no, there would be numerous others.

Q. Are you able to say whether the level of those hazards differ according to whether a mine is gassy or not gassy?

A. Sorry sir, I didn't understand the question.

Q. Are you able to say whether the level of any of those hazards differs according to whether a mine is gassy or not gassy?

A. Yes it does. If a mine is not gassy the hazard presented by spontaneous combustion is more manageable I think, for want of a better term, because the problem of an ignition source is effectively, of flammable gas, is removed. The coal can go on fire but it's not going to ignite any flammable gas. One case in point is Terrace Mine in Reefton which is extremely prone to spontaneous combustion. We had many incidents of spontaneous combustion in that mine and they were dealt with in a variety of ways, sealing off, washing out, but the hazard of ignition of methane was not present as a result of that heating.

Q. Are there any hazards that are present in gassy mines that you haven't mentioned so far?

A. Probably sir but my recollection is probably getting a little bit fatigued in the brain department at this point.

COMMISSION ADJOURNS: 3.28 PM

COMMISSION RESUMES: 3.46 PM

CROSS-EXAMINATION CONTINUES: MR WILDING

Q. If we just turn now to the limitations of a inspectorate. Do you agree that having regard to the complexity of modern mines, for example, Spring Creek that there are limits to which a mines inspector can identify all health and safety issues?

A. Inevitably sir yes.

Q. If we can take a few examples, perhaps first strata control. Are you able to give an indication of the extent to which a mines inspector might be able to pick up on problems with the level and type of strata control?

A. Yes sir the contemporary method of ascertaining the integrity or the effectiveness of strata control is done through strata monitoring using convergence monitoring or tell-tales, I would expect an inspector to be able to review that convergence data and to be able to come to a reasonable conclusion about the stability of the area that he is making some judgement on.

Q. When you say, "The stability of the area", you mean the stability of the area at the time at which he is inspecting it?

A. No sir the, the readings taken of the tell-tales to ascertain a strata stability are taken over a period of time, usually at weekly intervals. I would expect an inspector to access that information and to be able to form a view on – in the context of the other information from tell-tales on whether or not that area is stable.

Q. Do you think that from that data alone an inspector is able to say whether or not the design of the strata control is sufficient to cope with all the range of conditions that might be presented with?

A. No sir that's the domain of the geotechnical engineer.

Q. And for a person to assess that, they would presumably need to access the design of the strata control?

A. That's my understanding sir yes.

Q. And also expert reports as to the strata control?

A. Absolutely.

Q. Are you able to say the extent to which a mines inspector might reasonably be able to say whether the methane drainage is sufficient?

A. I believe he should sir. Methane drainage is particularly pre-drainage. It is something that is not practised in New Zealand. I have particular experience of post-drainage and can observe the effectiveness of post-drainage, but the pre-drainage of a coal seam and the entire programme to do that and to manage that is something that I'm not particularly familiar with. I certainly have observed it in Australia but it's something I haven't, I've neither managed or been involved with, pre-drainage of coal mines, of coal seams.

1550

Q. Well there are two stages of drainage we're dealing with here aren't we so if we just take the first of pre-drainage. Would you agree that assessing whether or not the pre-drainage of methane as sufficient is a matter that would involve expertise likely outside that of a mines inspector?

A. Pre-drainage of coal seams sir is very much a specialist, regime of a specialist. As an inspector of coal mines I wouldn't presume to have that sort of knowledge.

Q. Do you know what sort of specialist knowledge would be required to assess that aspect?

A. My familiarity with it is somewhat scatty sir. The only true exposure I've had to it was at Appin Mine in New South Wales and meeting with their drainage engineer, who was recognised as an expert in the field in Australia, widely known in Australia, hugely respected for it. But in saying that that person had been involved in gas drainage for many years and built up the expertise through his own experience.

Q. Perhaps that answers it in part, which is that it may require a methane drainage engineer?

A. Totally agree sir.

Q. Turning to the second part then which is the adequacy of the methane drainage during the operation stage in a mine. What are the aspects of that that a mines inspector could check?

A. I think we're talking about post-drainage here sir?

Q. Yes we are.

A. Post-drainage is a mechanism that I am familiar with, having managed it, installed it. The purpose of it is to ensure that the workplace is kept free of methane because once a goaf is formed, and a goaf is an area that has been extracted of coal and may have collapsed and may be wide open. The gassy mine to the rise, such as the hydraulic operations we work at Spring Creek, it tends to fill with methane. If that methane ingresses into the workplace it needs to be dealt with. And to prevent that from happening we practice post-drainage. In other words we drain methane from the back of the goaf, back of the formed goaf, to try and prevent it from ingressing into the area where men are working.

Q. And do you think that the adequacy of that drainage can be assessed by a mines inspector?

A. Yes sir I do.

Q. How?

A. Through determining the atmosphere that the extraction operation is taking place and if there are high levels of methane in that area it's have occurred for one of two reasons. One, there's been sudden barometric fall which the draining system hasn't coped with. The other one is the drainage system has become blocked and is not operating as it should.

Q. At the risk of labouring the point, do you think that a inspector without access to, for example, the reports as to the design of the methane drainage and the geology and the particular conditions that might occur can assure him or herself of the adequacy of a methane drainage system?

A. I'd find it difficult to answer that, sir, for all inspectors.

1555

Q. So that means some might have a degree of specialist knowledge which assists them to do so and others might not?

A. That's what I'm meaning.

Q. To what extent, in your opinion, could a mines inspector assess the adequacy of a ventilation system?

A. I would expect any competent inspector of coal mines to have that ability.

Q. In Dr Elder's evidence he referred to the risk of gas slugs in underground coal mines, are you familiar with those?

A. Yes, I am sir.

Q. Do you think that a mines inspector would be able to assess whether a ventilation was sufficient to deal with a gas slug?

A. Absolutely.

Q. How?

A. For observing whether or not there are systems in place to ensure that the gas concentration going into the return is kept below the statutory limit.

Q. Wouldn't assessing whether or not a ventilation system was sufficient to cope with gas slugs also involve accessing reports that might identify the total capacity for example of the ventilation system?

A. Yes, it would.

Q. And also for example the likelihood of gas slugs and their likely size?

A. The size of any gas spikes that may go out through a return is very, very difficult to quantify. There are several agencies that cause them. The method of mining that we use, total extraction using high pressure water, you've probably heard Dr Elder talk about that, I'm not sure if you did.

Q. Yes, we did.

A. What it does is create a void, very often bigger than this room, very often many times higher, up to 22 metres high. When that fails you may get an ingress of methane into the returns. When that occurs there needs to be a mechanism in place to ensure that the methane ingress into those returns is managed.

Q. And what is that mechanism?

A. It's dilution or air dumping, dumping fresh air directly into the return to dilute whatever methane is going past that point.

Q. Do you think a mines inspector is able to assess the adequacy of the means of egress, including emergency egress?

A. Yes, I do.

Q. How would that usually be checked by a mines inspector under the 1979 Act?

A. Normally he would travel all roadways in the mine at some point. It may not be at the same attendance at the mine but I'd expect and in practice him to travel both egresses in and out of the mine. That is to say he would travel the intake, he would travel the return.

Q. And so in the case of a ventilation shaft does that mean that, which is also used as a means of egress, does that mean that he would physically climb up it?

A. No, not necessarily, sir. The only operation other than Pike River that I'm aware that used a ventilation shaft was Huntly West Mine. Huntly West had two egresses in the forms of declines other than the shaft and I don't ever recall having climbed up that shaft. In fact I know I haven't.

1600

Q. How can an inspector know whether an emergency egress, and we will take the specific example of a ventilation shaft which is being used as one, know whether that's adequate without climbing up it?

A. I'm unsure how to answer that sir, he should be able to sit down and look at a mine plan and make a determination from that mine plan on what constitutes a reasonable second means of egress. Whether or not he chooses to travel that second means of egress is up to him but personally it's something I'd do.

Q. Just at a more general level would you agree that having regard to the size and complexity of modern mines and we used a specific example of Spring Creek, a coal mines inspectorate is only a part of the systems necessary to ensure health and safety?

A. Very much so sir, the Health & Safety In Employment Act is quite specific in that respect.

Q. By quite specific, what do you mean by that?

A. It means that the responsibility comes back to the owner of the operation or whatever business it may be and responsibility sits with the person in charge of the place of work.

Q. Was that also the case though under the Coal Mines Act 1979, that the operator of the mine had a main opportunity to ensure that it was healthy and safe?

A. The manager of a mine is the paramount official at that mine, that's been reinforced many times in many forums. Having a proactive inspectorate during that regime made no difference to the responsibility of the person in charge of that mine. There's no suggestion that an inspector of coal mines could usurp that responsibility simply by his presence at the mine.

Q. Right, so under both regimes there was either the operator or the manager who had main responsibility for ensuring health and safety at the mine?

A. That's correct sir.

Q. In the case of Spring Creek, what do you see as the importance of the mines inspectorate and the inspections that they conduct?

A. I would be very hard pressed to comment or to answer that constructively sir.

Q. Having regard to the complexity of Spring Creek are you able to say what the range of skills is that you think would be necessary for an inspectorate to be able to assure itself of the health and safety of a mine and its men?

A. Yes sir, the range of skills for an inspector of coal mines for a mine the complexity of Spring Creek is that commensurate with a mine manager with a full range of skills expect for an operation of that size.

Q. If we look at the 1979 regime there was also for example a mechanical inspector who you'd referred to as having engineering qualification. If we take that example do you think there would be a call for an inspectorate to have someone with that type of expertise as well?

A. I'm aware of several instances where such a person would have been of benefit.

Q. Are there any other ranges of skills that you think might be of benefit?

A. I'd make the same comment sir about the presence of an electrical inspector.

Q. I'll just turn to I think the final topic which is that of Mount Davy. Am I right that you were an inspector at the time of the Mount Davy incident?

A. The incident referring to the outburst and fatality of –

Q. – the tragedy which led to the deaths?

A. Yes sir, that's correct.

Q. And did you have a role in relation to inspecting that?

A. Yes I did.

Q. And investigating it?

A. I conducted the investigation into those two fatalities sir, yes.

1605

Q. What was the result of that investigation?

A. In terms of prosecution?

Q. Yes.

A. There was no prosecution.

Q. Are you able to say why?

A. Yes it was based on the advice from D&T Germany which was a company that had expertise in outburst conditions in coal mines and based on advice from Geogas in Australia. I saw a communication saying that the Mount Davy conditions and the outbursts, the type of outbursts they're having was beyond their expertise and experience. So based on that I felt that – and after discussion with the branch manager of OSH I felt that we had really no case in terms of prosecution.

Q. Mr Hughes just finally, at various points you've referred to having correspondence available and can you just confirm that you're willing to supply that to the Commission upon request?

A. Yes sir.

CROSS-EXAMINATION: MR HAMPTON

Q. Mr Hughes, just to clarify in my own mind things – some of the things you've been talking about with Mr Wilding about plans and mine design.

Your paragraph 15 I think it flows from. You talked earlier on about plans being of value and showing you the location in various things, boundaries and phones and fans and ventilation plans and so on. Plans would also show you the means of the modern terminology outlet or means of egress, wouldn't they?

A. Yes sir.

Q. And under the old Act and Regs, as an inspector getting a set of plans, would that be one of your fundamental things you would look at, things of egress?

A. Yes sir it is.

Q. Under the old Act and Regs, if you found a plan that you thought – mine plan you thought was deficient in terms of egress, what would you do about it?

A. The concern about the efficiency of the egress will be raised with the mine owner or the mine manager.

Q. Through the chief inspector?

A. No not necessarily as a district inspector you would liaise directly with those people. Any concern that was in writing would be copied to the chief inspector.

Q. And have I got it right that ultimately if it wasn't remedied you'd have the ability and the inspectorate to put a stop to development until it was rectified?

A. That's correct sir.

Q. What happened under the old Act and Regs if you had in theory on the plans a design for egress that accorded with good mining practice and with the Act and Regs and then you found on one of your inspections that it was then built other than to the plans but the egresses were not as on plan. What would you do?

A. Is this a theoretical case sir?

Q. It's a theoretical case.

A. I would – as an inspector I would stop the operation and request that it be rectified back to the original plan.

Q. So in Mr Wilding's hypothetical example of a drift as your main egress and a ventilation shaft as your secondary egress, if on the plan that secondary egress had a hoist, a mechanical means of raising men out of the mine within a 30 minute period and that got the tick of approval at plan stage, but then you come along later as an inspector and find the hoist isn't there, it's just a ventilation shaft, possibly with rungs, what would you do?

A. It would be my expectation that the construction of that egress would be as per the submitted plans sir. I would expect to see that hoist there.

Q. And if it wasn't?

1610

A. I would expect it to be rectified. The operation may stop until it be rectified, particularly in terms of a second egress.

Q. And from what I understand from what you've just Mr Wilding in your experience you've never, in New Zealand at least and maybe wider, you've never come across a mine plan with one egress drift through the stone into the mine and the secondary egress being a vertical ventilation shaft?

A. That is largely outside my experience sir, yes.

Q. Largely?

A. I don't recollect any such instance sir, sorry.

Q. Is your experience within New Zealand or does it reach overseas?

A. My overseas experience was as a mine manager sir, not as an inspector.

Q. But any mines you worked in overseas as a manager did they have that sort of egress as a secondary form of egress, a vertical ventilation shaft?

A. Yes they did but they weren't intended as a secondary egress, they had at least two drifts.

Q. So never one with just one drift and a ventilation shaft as an emergency exit, a secondary exit?

A. No sir.

Q. Thank you. What was the requirement for means of egress or outlet under the old Act and Regs.

A. Without going back to look at it sir I couldn't say. It is sometime since I've used that document for any reason.

Q. Was it similar to the present regulation 23 of the Underground Mining Regs, do you know?

A. I'd prefer not to at a guess at it.

Q. It's a matter of record anyhow sir. Just looking at your paragraph 15 on the document 347124/7. As you understand the present regime who performs the role of the Chief Inspector of Coal Mines nowadays?

A. I'm not aware the role is performed by anybody sir.

Q. In paragraph 26 of your brief on the marked /11, under the heading, "Health and Safety," comment there in the second sentence about the OSH view being the correct health and safety was primarily responsibility of the mine operators and operational guidance or advice should not be offered as it may not be the view of the Department of Labour and could therefore legally compromise the department. And you've spoken a little about that. I would see it as being a sort of a liability reversal or risk reverse approach within the department itself.

A. That's my impression, yes.

1615

Q. Well that was back – when did you leave? Start of two –

A. Early January 2001.

Q. 2001, right. Can I take you to a series of documents? I don't want to spend too long. It's the reference number DOL0020020011, can we – DOL002 – I'll do it in secret service jargon, 0020020011, some mine steering, mining steering group minutes. Can I get up page 2 of that series and 3 alongside it if we may. It may be too difficult, it may be too small but we'll start with page 2, see at the bottom of that page – sorry, this is the mining steering group minutes, 13th September 2010, see up the top, Mr Hughes?

A. Yes, I've got it there now.

Q. And some names mentioned up the attendees Mr Booyse, Mr Firmin who we hear from later on, one of the inspectors, Mr White, Mr Poynter and the Commission has a brief from him as an inspector now gone, Mr Steel and Mr McGregor. Do you see those names?

A. Yes, I do.

Q. Go down to the bottom, "Storage of mine plans. The reason for receiving mine plans was discussed, Richard explained that the matter was referred to Legal and subsequently to the Crown. The explanation received from Legal was not clear and an expectation might exist for the department to 'approve plans' it was resolved that the department must with under the acknowledgement of receiving the plans, include a disclaimer that plans are not approved by the department and therefore by receiving mine plans do not replace any legal obligations on employers (or employees) for example to comply with statutory duties under relevant legislation." Have you any comment to make in relation to that in view of what I've just discussed with you as to perhaps liability adverse or risk adverse approach by the department? Does that accord with your experience in 2001?

A. It's not, sir. However, if we could just go back to the previous sentence if we could about those mines plan? I think it's "Storage of mine plans."

Q. Yes.

A. I can shed some light on that. The mine plans are sent, there is regulation under the Health and Safety in Employment (Mining - Underground) Regulations 1999 requiring the offer of those mine plans to an inspector and I'm not exactly sure what the word is, whether it's inspector or secretary, I'm not sure, I think it's inspector. I think that is regulation 11 or 15, which one I'm not sure.

Q. Eleven.

A. The purpose of those mine plans to my understanding during the period that I spent with occupational safety and health was to appraise the inspector of coal mines on both what had been done at the mine and what was intended to be done at the mine. My understanding of it

rightly or wrongly was it provided the inspector with the opportunity to raise comment on those plans on the appropriateness of those plans –

Q. Doesn't –

A. – which –

Q. – sorry.

A. – I can provide correspondence for the Commission if necessary.

1620

Q. Does it surprise you that this work that included the two inspectors at the time were in 2010 discussing amongst themselves why they had these plans?

A. Yes sir it does, I would've expected them to understand why those plans were offered.

Q. Just a little further down on that page 3, a series of bullet points, just run down them yourself starting with what is required for the shorter bullet points, just read them to yourself, "What is required for small mines to be compliant, how will we secure the compliance, how do we collect monitor mine fans, how often we will be visiting mines, what does the operation policy mean for the deployment of our resources, how we make the compliance requirements and operational policy known to miners, how do we manage the implications in the operational policy." Are you surprised to see those sort of discussions going on in this group including the inspectors in September 2010?

A. I view it with – I shouldn't say amazement, it's not amazement, I suppose that's the best word I can come up with.

Q. Well, I don't want to steal your thunder but in talking to me as I bumped into you at lunch time and I said something about it you used the expression "palpable naivety." What did that relate to?

A. I think the palpable naivety, I wish I hadn't said that to you now.

Q. No you shouldn't say anything to me when (inaudible 16:21:41) or wherever it might be.

A. I must admit you did explain that, I think those bullet points are an example of that palpable naivety because it should be perfectly apparent to inspectors of coal mines what the requirements are.

Q. Can I flick on to page 9 which is a part of the same group meeting, 31st March 2010, this time present Ms Radford, Mr Booyse, Mr Firmin, I'm reading from page 8, we could put it up if need be sir, Mr White, Ms McBreen-Kerr, Mr Pointon, Mr Steel, Ms Campbell, Mr McGregor, but of particular interest the fifth point down on that page 9, "Inspectors said they sometimes check plans if they were looking for something specific, Johan (who is Mr Booyse) pointed out that plans can be of great assistance when investigating a mine accident." Is that more of the naivety? One would have thought inspectors would know that, wouldn't they?

A. When I read it I thought, "Oh my God". Inspectors said they sometimes check plans if they're looking for something specific, the checking of mine plans should be comprehensive. The observation they're great assistance when investigating a mine accident is a observation I couldn't be accused of putting in writing.

Q. I'll just go back to page 5 of that series please, which is still part of the meeting of the 13 September 2010. Under the heading, "Regulations," first bullet point, "Current means and interpretations of a mine inquiry are not clear." Second, "Johan to approach legal to get clear understanding of the means and interpretations of mine inquiries." Three, "It is also required to determine who the 'Chief Inspector of Mines' is as some regulations refer to Chief Inspector of Mines in the case where buildings are to be erected on a mine site." Comment on those bullet points?

A. Yes sir, there's probably a matter of interpretation there that needs to be clarified. The position of Chief Inspector of Mines and the position of Chief Inspector of Coal Mines are two separate and distinct roles. That's – under the pre-Health and Safety in Employment Act regime, they operated under different Acts, one was the Coal Mines Act the other one was the Mines Act. And they had their chief inspectors accordingly. I'm a little unclear who is being referred to there because sometimes the Chief Inspector of Coal Mines also has that appellation dropped and it gets a little bit confusing. I'm usually at pains to point it

out. Turning to the current means interpretations of a mine inquiry, my understanding is under the definitions of the Health and Safety (Mining - Underground) Regulations 1999, defines what a mine is. Now, you may wish to correct me but I believe it is there.

1625

Q. Defined as a coal mine, defined as a gassy mine, that's in the –

A. Yes sir I think that's the mines –

Q. – and then we've got – that's within the, say the interpretation section, regulation, then you go to meanings of tunnels and so on and explanations of those within the Regulations itself?

A. Yes. Now turning to the issue of quarries and also supposedly the issue of any surface mining operation I am not familiar with any regulation around it. I'm just not familiar with it.

Q. Well just one last extract if I could get up the same summaries page 16, and this is from an earlier meeting of the same group 10th of December 2009, present Ms Radford, Mr White, Mr Steele, Mr Booyse, Mr McGregor, Mr Mayor, Ms Campbell, Mr Poynter, Mr Firmin and under the top paragraph heading, "Continuous professional development", I just want you to read those three paragraphs, just through to yourself initially and give me any comments you would like about what is contained there in view of our earlier discussions?

A. Sir, concerning the retention of certificates of competence, those that were issued prior to the abolition of the Coal Mines Act are certificates issued for life. The requirement for the retention of those certificates is that the holders, and I'm talking only about coal mines here, have an endorsement for gas testing. They must maintain that competency. Since the abolition of the Coal Mines Act or the repealing of the Coal Mines Act, certificates of competence which are now issued by EXITO, have a given a period of time for which they develop. That came out of the Moura inquiry 1994, where there was a recommendation that certificates of competence not be issued for life and there should be some indication given to the regulatory body that

the person or the holder of that certificate has the competence and training to be able to retain that ticket. I'm not certain regarding the range of inspectors currently in OSH and I only talk about the inspectors of coal mines, the whole of them, I don't know what certificates they hold sir, whether they're issued under the new administration, which issues certificates for a given period, I think that's three years, or they hold certificates under 1979 Act.

1630

Q. Can I take you to the next two sentences though. "Clarity necessary re what is required of a mines inspector, be competent and have credibility in the industry. This has to be balanced against the risk of us doing the job for industry?" Is it surprising that in 2009 we're still discussing amongst ourselves, this is the inspectorate, what is required of a mines inspector to be competent and have credibility? This system's been in force, in effect there for some time.

THE COMMISSION:

Mr Hampton, I'm just wondering how profitable this line of questioning is. We're asking a witness who left the Department of Labour in 2001 to comment upon minutes which were prepared some nine years later and of which he must have no prior knowledge. Is it really going to advance matters. There are going to be witnesses who were members of this group and who can be asked as to what was being discussed. Seems to be speculative to have his opinions about what these minutes may convey.

MR HAMPTON:

Thank you sir.

CROSS-EXAMINATION CONTINUES: MR HAMPTON

Q. We talked about your paragraph 19, page 9 in the system, it was the bottom of that paragraph, six lines up from the bottom, "Proactive inspections of coal mines were actively discouraged. First, what do you mean by, "Proactive inspections"?

A. The, I talk in my brief about inspectors being self-starters. So they would have the ability to attend a mine that they perceived where there was a problem or even routinely without any letter or hindrance. And I can only speak about my experience in the department, the short time that I was there, about the discussion of how often an inspector should attend the mines. And that, there was the feeling that we attended them too often and could therefore get drawn into the management of the mine, for example. At the –

Q. Sorry, pause there. Feeling from whom that you were attending them too often?

A. From the branch manager of the mining, of the occupational safety and health.

Q. Thank you. And you were going to, I interrupted, you were going to go on?

A. No, that's all I had to say sir.

Q. Well the second part of that line, "Actively discouraged," is that what you're referring to there?

A. Yes, and I can only speak from my personal experience.

Q. You told Mr Wilding about what you would inspect for, what the mechanical inspector would look at, what the electrical inspector would look at, which of the three would be the one to look at the - and I'm not sure of the proper technical term, excuse my naivety, the flame or gas proofing of electrical equipment underground?

A. Flame proofing of equipment sir.

Q. Say you've got a fan underground, making sure that that electrical equipment was divorced from potentially explosive gas?

A. Sir, I think you've almost answered it yourself sir, the electrical inspector.

Q. The electrical inspector. With the demise of the electrical inspector who would look at that nowadays, do you know?

A. I believe there are still, and I'm, I've had no dealings with this particular person, but I believe there still is an electrical inspection regime maintained by OSH. Now what, how they do it I'm not sure whether it's

an employer or a contractor or how it's done but I have observed such a person on site at Spring Creek Mine.

1635

Q. Can I take it from comments you made to Mr Wilding that you would still see the sort of regime that existed for the coal mines inspector and under the old Act and regulations as still being the ideal?

A. In my opinion, sir, yes but I say that as being a bit of a traditionalist and somebody who operated under that regime and somebody who was trained under that regime with a very good mentor I might add and I saw firsthand how effective it could be.

Q. With your experience can you volunteer an opinion about the sufficiency of inspectorate by a government department inspectors, the mines inspectorate three monthly on notice?

A. My first reaction, sir, is I prefer not to comment, but on reflection I think the inspectors should have that right to inspect those operations as they see fit because coalmining is a very dynamic process. It changes from day to day and the problems can change from day to day. In my experience as an inspector I could be called upon at any time to investigate a problem, become involved in a solution for a problem, be asked for advice about a problem. By scheduling the inspections quarterly it takes away that flexibility to be able to provide that sort of service that was seen as being so important under the Coal Mines Act.

Q. I put it to you a quote that, and ask for your comment on, it comes from a report put in by the department and it's got a number DOL –

OBJECTION: MS MCDONALD (16:37:38)

MS MCDONALD:

Just before my friend does that, I don't know particularly obviously what he's about to ask but just listening to Mr Hampton's questions I have got some concern, sir, I had understood that this was a phase where we were dealing with context and information for the Commission. Mr Hampton's questions particularly have moved from that into evaluation which is specifically for

another phase. The department have put in the tier, or departments have put in the tier two papers both from Labour and from MED. We're moving well beyond context and there are a number of departmental witnesses who could have been called to address a number of these matters, particularly the steering committee issues and others and we're really, sir, I think transgressing into matters which we had understood were not being dealt with at this phase.

THE COMMISSION:

Well I don't think that's correct, Ms McDonald. If you look at the list of issues, 1.9 to 1.12 specifically cover, and this is in phase one, specifically cover the regulatory agencies, their resourcing, their organisational structure and their operational methods. That wasn't originally the case but the issues list was amended following the preliminary hearing and this phase does extend to those aspects.

MS MCDONALD:

I certainly have understood that, sir, and that's why I've got no issue at all with the information coming out but these questions particularly are asking for this witness to comment and evaluate and those are the very points that I thought were being dealt with at a different phase but…

1640

THE COMMISSION:

I'm aware but of the view that it is permissible for the reasons really that I've – ore really for the reasons that are spelt out in the issues. Mr Hughes is a former chief inspector and somebody who is still actively involved in the industry and he's entitled, if asked and if drawn to do so, to express opinions.

CROSS-EXAMINATION CONTINUES: MR HAMPTON

Q. That document DOL0100010001 it's the Gunningham and Neal paper and I want page 46, footnote 49, I just wanted to put an extract – can we highlight the footnote 49 please. What I was going to put to you Mr Hughes was the proposition put on the New South Wales mines

inspectorate site, “The assessment regime should include a sufficient pattern of announced, unannounced and backshift inspections to detect non-compliance with acceptable standards at any site and on shifts other than dayshifts. An expectation should be created that a mine maybe visited at any time.” Would you agree with that philosophy Mr Hughes?

A. Yes sir.

Q. Theoretically, if – when you were an inspector there’d been a fire with a vehicle underground and you were notified, how quickly would you have attended such an incident?

A. As soon as I possibly could sir.

Q. And that goes back to the time limits – or the time periods you talked about earlier with Mr Wilding?

A. Yes.

Q. A delay of say three or four days before you attended such an incident, even up to five days, would that be acceptable?

A. Not in my opinion sir no.

Q. A cable flash incident, would you attend such an incident?

A. Yes I would sir.

Q. How soon?

A. Again as soon as possible.

Q. Would you regard in a mine, a gassy mine, a cable flash incident as being one of the highest possible hazards?

A. A cable flash, electrical flash is a source of ignition sir; it is one of the highest possible incidents that can occur.

Q. Third hypothetical, a frictional ignition at the development face, notified of that, would you attend?

A. Yes sir, of course.

1645

Q. Were check inspectors or the New Zealand equivalent of check inspectors still in existence in your time when you were (a) an inspector and (b) chief mines inspector?

A. I believe there were still check inspectors and the legislation provided for them during my first period as an inspector between 1987 and mid 1989. In my second period I believe the – with the repealing of the Coal Mines Act and regulations that the position of check inspectors, that statutory position of check inspectors had been disestablished and was not put back in any legislation that I know of and I think it was preferred not to have it at the operating mines that I'm aware of.

Q. So up until that was repealed your experience of check inspectors would have been (a) as a miner in the wider sense, given your underground experience and then as an inspector yourself. Did you form a view as to the utility of, the usefulness of the check inspectors?

A. Yes sir I have. I'm aware that check inspectors were recommended by the Brunner inquiry, workmen's inspectors. In more contemporary times and the way that the administration of health and safety has occurred I believe, and I can really only speak for Solid Energy operations, Huntly East Mine, Spring Creek and other operations we've had in the past, is that the awareness is considerably increased. Check inspectors had a slightly different role rather than individual responsibility of health and safety, they had a role that goes a bit wider than that to a mine-wide role, if you like. Whether there is a place for check inspectors or not at the moment, for reasons that I intimated to you outside of this Commission I'd prefer not to comment.

Q. Do you have a personal view that's at variance with your employer's view?

A. I'd be real careful to answer this, yes, that's the case.

Q. I don't want to embarrass you but I take it that you are in favour of the bringing back in some form of check inspectors?

A. It is my view that the use of check inspectors, as intended by the Brunner inquiry, may have some benefit. I tendered that view by saying that at the time of the Brunner inquiry inspectors of coal mines as such were very thin on the ground, there weren't very many of them. Check inspectors were viewed at that time as a regulatory mechanism in the absence of an inspector of coal mines.

Q. Do you believe in the necessity for a mine's safety generally of the three legged stool approach, one leg being the government to regulations and inspectorate, the other leg being mine owner and management, the employer the third leg, the employee and their responsibilities?

A. Absolutely.

Q. One leg is missing the stool collapses?

A. One leg is missing there is a problem somewhere, yes.

Q. In that period you spoke of when there were still check inspectors and you were a mines inspector would the check inspector accompany you on your inspections?

A. I don't specifically recall them having done so sir.

1650

Q. Do I take it that in your inspections you would consider it vital that you spoke to the mines, the men at the coalface, correct?

A. That's correct.

Q. Secondly, on your inspections you would want to speak to, if there were such things in those days, the equivalent of the health and safety representative?

A. Not necessarily sir. In later years there was such a person and as an inspector I did have some dealings with. Not necessarily on a mine site, more at perhaps corporate level. But I'd just like to add there that it wasn't until after corporatisation that I'm aware such a role existed.

Q. So it's really after, it's a bit after your time?

A. Yes, I'd just like to take it a little bit further. The role did exist because I'm aware that in 1970 Bill Brazil, who most people in the mining industry will be familiar with the name Bill Brazil, was appointed as the Director of Safety for New Zealand State Coal Mines around a concern in the rise of injuries in coal mines at the time. Whether or not he had dealings with inspectors I have no idea. At that time I was a coalminer.

CROSS-EXAMINATION: MR DAVIDSON

Q. Mr Hughes, your career has marched as it were hand in hand, step by step with Harry Bell's I think, and different points in the compass?

A. There are probably some parallels in our careers, both having started down the sharp end and worked our way up.

Q. You referred to your mentor, a mentor, to you, who was that?

A. Bill Brazil.

Q. And you worked closely with Bill Brazil?

A. When I first returned from Australia in 1987 I was appointed as Inspector of Coal Mines in the Buller and Inangahua area because of a large number of operations that were there at the time and Bill was the other inspector and it was through Bill that I learnt the trade as it were. Learnt how to deal with license applications, how to deal with what you did with official letters from coal mines, the importance of being very thorough in your inspections, the importance of being very concise in what you wrote down.

Q. I'm just going to jump forward a bit given that this part of my cross-examination will only last a few minutes tonight. But when the legislation changed, which you've talked about in detail now, the representations made about the fact of that change and what it would mean for safety in the industry weren't there?

A. Yes sir, there were.

Q. And although I can come to much of the detail I'll put the question to you broadly tonight. A number of people from the inspectorate actually made submissions and representations against the change that was proposed?

A. That's correct sir.

Q. Was Mr Brazil one of those?

A. Mr Brazil had no input into the transference of MIG to OSH. Mr Brazil died in November 1995. He was very vociferous about the lack of regulation, which included the specifics around the inspection of coal mines. He was very vociferous about the appointment of inspectors.

1655

Q. Mr Bell when he gives evidence will refer tomorrow to the fact that he was one of those who made strong representations against the legislative change. Were you aware of his representations?

A. I have a copy of that representation sir yes.

Q. And you made some yourself?

A. Yes I did.

Q. Were they reflected in any way in the outcome, legislative outcome?

A. I don't believe so, no.

Q. And isn't it correct that in addition to the representation such as yours and Mr Bell's that there were in fact representations from within the mining industry itself, concerned about the lack of regulation?

A. I'm aware that there was sir although I don't have copies of those.

Q. What did you perceive as the driving force for the change in the system and in particular the abolition of the inspectorate as you knew it and worked in it?

A. I think I referred to it earlier; it had its foundations in the proclamation of, promulgation of the Health and Safety in Employment Act concerning workplace safety. Added to that was the Health and Safety Regulations that came along I think in 1995, with OSH taking over the regulatory regime for workplace safety, it seemed clear to government official that's where the mining people should sit. So, that's what happened.

Q. I just want to step back into that time before the changes came and while there was an inspectorate which you ended up in as chief inspector, is it correct that in looking at the qualifications for inspectorate – an inspector, one looked for or you looked for someone with gas mine experience or gassy mine experience in the case of a coal mine?

A. Inevitably sir yes.

Q. And that would mean that qualifications such as some mines are less gassy and I think Dennison maybe an example of that?

A. Dennison was non-gassy.

Q. So it was really requiring experience or experience was looked for in a gassy mine in management before an inspector position would be obtained?

A. Not necessarily sir but it was preferred.

Q. That's what Mr Bell will say, that it was something looked for in the appointment of an inspector and generally the chief inspector would come from, I think with one exception, from an inspector's position. Am I right?

A. Yes I'm aware of the exception you're talking about sir, yes that's right.

Q. I think that was Bob Offord, was it?

A. Yes.

Q. Otherwise it was a distinct hierarchical climb to the top out of management to the inspectorate to the chief inspector's position?

A. That's exactly right.

Q. And one of the advantages you refer to in your evidence and I don't think I need to refer to the page, but some requires a rule, you talked about the distinct advantage of a dedicated co-inspectorate allowing a high standard of service delivery through inspectorate forums, and you mention in particular this Australasian Chief Inspector's Conference. You ever been to those?

A. Yes I attended two I think. I think I've attended two, yes.

Q. As did Mr Bell. Your observation of the value of those?

A. It was somewhat limited because the forum also included mining inspectors, ie hard rock; probably the value of them was in social interaction with coal inspectors from New South Wales and Queensland and dealing with issues of the day. That's where the value was and dealing with your peers at a different level.

Q. Are you aware of any equivalent meeting of minds at education under the existing system through the inspectorate?

A. No sir I'm not.

Q. Now I just want to return briefly to a matter that's been touched on. I need a specific question to put to you about it. Mr Bell will say in evidence that either in approving or considering mine plans or on

inspection , if there were matters that were of significant health and safety concern the response that he would take as a chief inspector would require desisting from something unsafe or in terms of approvals, a refusal to approve a particular plan. That was the practice that he adopted. Is that something familiar with, you're familiar with?

A. Those are the mechanisms that were available.

1700

Q. And used?

A. Yes.

Q. And with regard to the plans, a matter Mr Hampton raised with you, was whether there was any concern held by you as a chief inspector or any other chief inspector with whom you're familiar that there was any form of danger in giving advice about amendments to plans to make them safe places of work. Was there any such concern?

A. I'm not aware of any concern at any stage during my time as an inspector under the Coal Mines Act.

Q. Am I right that the question of liability simply would not cross your mind as you saw safe practice?

A. Not at all, sir.

Q. Now apart from the mine plans and I think the annual mine plans, they differentiated large and small mines at 12,000 tonnes per year. Is that right?

A. That sounds familiar. I was fishing around trying to find the figure earlier on, sir, but that does sound familiar.

Q. Yes, in addition to the plans filed six monthly or annually under that differential, there was another set of documents which historically go back decades I think called mine statements. Are you familiar with those?

A. Very familiar with them, yep.

Q. It hasn't had much mention yet in this hearing but as Mr Bell describes it, mine statements were filed annually actually recording the state of the mine on an annual basis?

A. That's correct.

Q. So it postdates the approval obviously for a plan. It is what is there and his evidence will be that such mine statements were an invaluable tool for ongoing operations to trace the historical record of the mine including old workings, faults other problems that were found to exist sometimes decades before?

A. I endorse that comment entirely, sir.

Q. And he will say that that disappeared under a directive and he has difficulty with the year in which it occurred but some time in the seventies there was a direction or a decision taken that mining statements, mine statements would no longer be required?

A. I may stand corrected, sir, I think it was 1972.

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Q. Do you know the reason for that?

A. No, I was a miner in those days. Mine was not to reason why.

Q. Well now reasoning why today, and tomorrow when Mr Bell gives evidence, his example that he will give, and I need to put it to you, is that, for example, to know at a mine like the Tiller Mine of Black Reef that there are neighbouring workings which may be flooded, or could be flooded, or could potentially be flooded, is the very kind of thing that emerged from reference to mining statements?

A. That's correct sir. I made use of mining statements myself in dealing with license applications on many occasions.

COMMISSION ADJOURNS: 5.04 PM