

IN THE MATTER OF THE HAZELWOOD MINE FIRE INQUIRY

WITNESS STATEMENT OF STEVEN WILLIAM HARKINS

1. My name is Steven William Harkins, of Brodribb Road Hazelwood, Victoria.
2. I am employed by Hazelwood Power Corporation Pty Ltd at the Hazelwood Coal Mine ("**Mine**") and Hazelwood Power Station ("**Power Station**") as the Director of People, Culture and Environment.
3. I have worked on-site at the Mine and Power Station (collectively, "**Hazelwood**") for approximately 8 years.
4. Prior to this, I worked for approximately 9 years for the owners of the Mine, and was based in Melbourne.
5. This statement is based upon on my own knowledge and recollection of the circumstances surrounding the commencement of fire activity within and around Hazelwood on Sunday 9 February 2014. In light of my role overseeing and co-ordinating aspects of Hazelwood's fire preparedness and response, some of the information within this statement is based upon reports provided to me by Hazelwood personnel.

Coal fires vs bushfires

6. Operational coal fires are not an uncommon occurrence at the Mine given the flammable nature of brown coal and the presence of coal dust, which is highly combustible. Operational fires are generally a consequence of mechanical or similar faults associated with the infrastructure used in mining operations (e.g. dredgers, conveyors, vehicles), which cause a spark or otherwise cause coal or coal dust to ignite.
7. Such fires are managed by Mine personnel and contractors as a well understood risk associated with the Mine's operations. The vast majority of these fires are successfully combatted, and have only very rarely in the post privatisation period given rise to significant issues, such as injury to personnel or losses of Mine infrastructure.
8. In contrast, bushfire related fires impacting upon the Mine, in my experience, are rare. Indeed I cannot recall a bushfire related fire during the 8 years that I have worked on site at the Mine. From my enquiries of other personnel, no-one can recall a bushfire related fire at the Mine since the Mine was privatised in 1996.
9. Even so, the risk of bushfire is something which the Mine is conscious of, particularly during the fire season.
10. The employees and contractors within the Mine are unusual, in that for them fire in brown coal is not a rare emergency. Instead, fire is a key risk to manage as part of their everyday mining operations, given the properties of brown coal. Many personnel within the Mine have several decades of mining experience, and in that time, will likely have had a direct role in extinguishing many incidents of fire, and will be highly familiar with the relevant risk management processes and suppression techniques.

Fire preparation

11. Hazelwood has a number of fire prevention and preparedness policies, including:

- *Emergency Response Plan – Hazelwood Mine* revised May 2013;
- *Mine Fire Policy & Code of Practice* revised July 2013;
- *Hazelwood Mine Fire Instructions* issued 27 July 2011;
- *Internal Grass Slashing – Specification for Grass Mowing* issued 17 October 2011;
- *Hazelwood Mine Guidelines for Season and Period Specific Fire Preparedness and Mitigation Planning* issued 13 September 2007;
- *Check List for Fire Fighting Equipment Annual Inspection* issued 18 January 2013;
- *Check List for Season Specific Fire Preparedness and Mitigation Planning* issued 24 November 2008;
- *Check List for Hazelwood Slot Bunker Fire Services Wash Down & Routine Inspection* issued 18 January 2013;
- *Mine Fireman Assessment* issued 24 February 2012;
- *Fire Person Duties Training Manual* issued 23 August 2012; and
- *GDF Suez Electricity Safety - Bushfire Mitigation Plan* for period commencing 1 July 2013.

I understand that copies of these policies were provided to the Board of Inquiry by letter dated 2 May 2014.

12. Whilst I am not directly responsible for the preparation or updating of these policies, or for many of the specific activities undertaken under them, I am generally familiar with their content and objectives.
13. I am particularly familiar with the Emergency Response Plan (“ERP”), given that I have had an active role in a number of emergency drills conducted at the Mine in recent years, under the ERP. These drills are required under Part 6 of the *Terrorism (Community Protection) Act 2003* (Vic), in light of Hazelwood’s status under that Act as an essential service. The ERP constitutes Hazelwood’s “risk management plan” for the purpose of that Act.
14. In the various drills conducted at the Mine, emergency management procedures within the ERP have been “tested” as regards a range of scenarios including fire. The drills have involved representatives of the Country Fire Authority (“CFA”), and has relevantly included drills conducted on:
- 11 December 2013, involving a simulated fire on a batter – see **Annexure 1**; and
 - 27 March 2013, involving a simulated fire at height on a dredger – see **Annexure 2**.

15. Each year at Hazelwood, the Mine declares the commencement of a fire season, sometimes as early as November, depending on how wet or dry the winter period has been. The intention of the formal declaration of a fire season for the Mine is to raise the awareness amongst Hazelwood personnel regarding bushfire related risks.

16. In the lead up to, and, in some cases, during the early stages of the declared fire season, a range of fire preparedness measures are undertaken at Hazelwood, including:

refresher fire training;

- slashing and other fuel reduction measures; and
- audits of the availability and condition of fire-fighting equipment and infrastructure, and arranging or undertaking necessary repairs / procurement.

17. Throughout the fire season, the Mine's various fire policies and procedures call for a range of measures to reduce fire risks, including:

- the issuing of fire preparedness plans and alerts on high risk days;
- wetting down of coal faces in the operating areas of the Mine;
- washing down vehicles entering the Mine; and
- having water tankers available and kept at least half full.

18. As a member of Hazelwood's senior management team, in the lead up to and throughout the fire season, I obtain a high level briefing, typically on a weekly basis, on the various fire preparedness measures throughout the Mine. An example of the weekly report provided to the senior management team (comprising myself, George Graham (Asset Manager), Tony Innocenzi (Strategy, Planning, Programs, Risk and Compliance Director), Wayne Buckley (Asset Management Director), Garry Wilkinson (Mine Director), Wilco Seinen (Finance Director) throughout the fire season is included at **Annexure 3**.

19. These reports help the senior management team keep track of fire preparedness measures and the level of resources being allocated to managing fire related risks. Senior management can step in to ensure that additional resources are applied to a particular task or risk. Generally speaking, this is not required as the officers with lead responsibility for fire preparedness, e.g. Garry Wilkinson (Mine Director), Rob Dugan (Mine Manager Production) and the various Shift and Services Supervisors at the Mine are proactive and highly experienced.

20. Under the ERP, there is a designated role called the Emergency Services Liaison Officer ("ESLO"), which is performed on a roster basis. During an emergency, it is the job of the ESLO to liaise with relevant emergency services agencies e.g. the CFA, Ambulance Victoria and Victoria Police in relation to the status of the incident, and arrangements for promptly getting emergency personnel into the relevant part of the Power Station or Mine.

21. Hazelwood is also a member of a regional industry group known as the Central Gippsland Essential Industry Group ("CGEIG"). From the CGEIG website, I understand that:

- the CGEIG evolved from the former Electricity Supply Industry committee under the former State disaster management plan, Displan, in the 1990s;
- following the privatisation of the electricity generation facilities in the Latrobe Valley in the mid-1990s, the group continued to provide a point of contact between Emergency Service Agencies such as the State Emergency Service, CFA and Victoria Police and the various Latrobe Valley electricity generators;
- membership of the group has now expanded to include electricity supply, oil and gas supply, water supply, paper production, major suppliers and State and Local Government; and
- the CGEIG provides a framework where companies can be called on to support Emergency Service Agencies and each other in the event of an emergency.

In respect to this last issue, understand that a document entitled “*Central Gippsland Essential Industry Group (CGEIG) Mutual Aid Guidelines*” dated December 2010 was supplied to the Board of Inquiry by letter dated 9 May 2014.

Contractors

22. The Mine’s workforce is boosted by a range of contractors trained in fire protection and mitigation, including:
- **RTL Mining and Earthworks Pty Ltd** and **O&M Pty Ltd** – which each provide skilled workers on a contract basis e.g. mechanics, boilermakers, plant drivers;
 - **Belle Banne** – which provides a workforce for maintenance of Mine plant and equipment – conveyor belt system on a contract basis; and
 - **Diamond Protection** - which provides security, first-aid services and back-up emergency/fire services contractor services at the Mine, and are based in Hazelwood’s front gatehouse.

2013 / 2014 Fire season

23. On the basis of the reports provided to me in the 2013/2014 summer period, and in the lead up to the fire activity which commenced on Sunday, 9 February 2014, fuel reduction measures had been undertaken throughout the Mine, annual refresher fire training had been undertaken, available resources and infrastructure had been audited and, where necessary, procured or repaired. As noted above, an example of such a report is attached as **Annexure 3**.
24. Prior to the weekend of Saturday, 8 February 2014 and Sunday, 9 February 2014, there had not been many high or extreme fire risk days during the 2013/2014 fire season. Consequently, there had been few fire preparedness plans prepared and circulated to Mine personnel under the Mine’s fire and emergency policies.
25. I can recall receiving only 1 or 2 such reports prior to the weekend of Saturday, 8 and Sunday, 9 February 2014. By comparison, to the best of my recollection there were up to a dozen or so Fire Preparedness Plans prepared and circulated to Mine personnel by about the same stage of the 2012/2013 fire season.

Friday, 7 February 2014

26. On Friday, 7 February 2014, in light of the forecast weather conditions for Saturday, 8 February 2014 and Sunday, 9 February 2014, I received two fire preparedness emails which had been circulated to all Mine and Power Station employees and contractors.
27. These emails consisted of:
- a Mine Fire Preparedness and Mitigation Plan for Saturday, 8 February 2014 and Sunday, 9 February 2014 circulated by Dave Shanahan, Services Superintendent at 12:50 pm – copy at **Annexure 4**; and
 - a “Safety Blimp” for Saturday, 8 February 2014 and Sunday, 9 February 2014, circulated by Lauren Carey, Internal Communications Manager, and prepared by John Robinson, Occupational Health, Safety & Environment Manager at 11:36 am – copy at **Annexure 5**.
28. Later on Friday, 7 February 2014, at approximately 3:00pm, I learned that a fire had commenced near Hernes Oak. Hernes Oak is situated about 13 kilometres to the north west of the Mine. It is also a few kilometres to the West of the Yallourn Mine. I became aware of this fire during the afternoon through several means, including electronic alerts (emails and/or alerts through the CFA “*Fire Ready*” app), and through verbal reports which I received via mobile telephone calls from Hazelwood personnel such as Alan Roach, Security & Emergency Services Manager, who was the ESLO rostered on at the time.
29. Given the fire activity which had commenced near Hernes Oak, I am aware that measures were put in place within the Mine to monitor its status. These measures included Mine personnel and contractors positioning themselves in the north west part of the Mine on fire patrol until approximately 6 pm.
30. I received a telephone call from Alan in relation to the Hernes Oak fire. He wanted to make me aware of the fire but I already knew about it given the alerts that I had received. Alan asked me if the fire was a threat to Hazelwood and whether it was going to affect us. He asked if he needed to come in. I said that he should go into work and speak with the Diamond Protection security contractors, based at the gatehouse, to obtain a briefing on what they thought the threat to Hazelwood was. Diamond Protection personnel monitor activity around the perimeter of the Mine through various cameras, and assist in fire and emergency response at the Mine, by driving one of the 3,000 litre fire trucks (ex CFA tankers) within the Mine.
31. At 4:45pm on 7 February 2014, Luc Dietvorst (Head of Generation Australia) sent Alex Keisser (Chief Executive Officer) an email concerning the status of the Hernes Oak fire. Included at **Annexure 6** is a copy of the email, which notes that “*additional water spraying has been occurring and spotting teams have been deployed*”.
32. Whilst I wasn’t cc’d to this email on the Friday afternoon, I received a copy of it the following day when I was cc’d to further emails in relation the status of the Hernes Oak fire.

Saturday, 8 February 2014

33. On Saturday, 8 February 2014 I did not attend my office at Hazelwood. However, I monitored emails on my phone in case there were any developments in relation to the Hernes Oak fire.

34. At about 10:33am, I was copied to an email between George Graham and Luc Dietvorst in relation to the status of the Hernes Oak fire. The email advised that the CFA website at 9:51am was indicating that the fire activity has subsided, that the bushfire is now safe, but that Hazelwood remains on alert as per high fire danger protocols. A copy of this email is attached at **Annexure 6**.
35. Although the Hernes Oak fire was classified as contained, it still posed a risk to the Mine, for example if it were to flare up due to a change in wind conditions. It was actively monitored by Mine personnel throughout the course of the day. The measures called for in the Fire Preparedness Plan circulated on Friday, 7 February 2014 e.g. wetting down of the operating face and extra fire patrols were also conducted.
36. At about 5:41pm on Saturday 8 February 2014, I received an email from Alan Roach which attached modelling in relation to the Hernes Oak fire produced by the CFA's Traralgon Incident Control Centre ("ICC") utilising Phoenix software. Alan had received that modelling from a CGEIG representative, Nick Demitrious of Loy Yang mine. The modelling was dated 2am on Monday, 10 February 2014. A copy of this email is enclosed as **Annexure 7**.
37. In his email, Alan noted that it was a "worst case scenario model" and advised that he would spend time with Nick Demitrious the following day to get updated modelling.
38. As I was reviewing the email from Alan Roach on my mobile phone, I could not make out the detail of the model attached to Alan's email. To the best of my recollection, this was the first occasion on which I had received any such modelling, and I was not familiar with it. Therefore, I responded to the email seeking clarification from Alan as to whether it was in fact depicting (as it appeared to me) that fire activity could potentially extend to the northern batters of the Mine. In a further email in response, Alan said that he would further update me on Sunday, 9 February 2014. A copy of this email exchange is enclosed as **Annexure 8**.
39. I was conscious at this time that the Mine was already on high alert, and had a Mine Fire Preparedness and Mitigation Plan in place for Sunday 9 February 2014.

Sunday, 9 February 2014

40. I was at home on the morning of Sunday, 9 February 2014. I was monitoring my emails in case of any developments with the Hernes Oak fire, or of any other issues at the Mine or Power Station.
41. During the morning, whilst he was on his way into the Mine, Alan Roach spoke with Nick Demitrious about a briefing that Nick had attended at the CFA Traralgon Regional Control Centre, regarding the latest forecast weather conditions, and the status of the Hernes Oak fire. At the Mine, Alan liaised with various personnel in relation to weather and the status of the Hernes Oak fire, and checked that the Training Centre was ready for use as an Emergency Command Centre if required.
42. At approximately 1:36pm, I was contacted on my mobile by Alan Roach, who advised me that the fire at Hernes Oak had just flared up, and was now threatening the Mine.

43. In light of this advice, I left home immediately and drove to the Mine. I live in Hazelwood North. The drive takes me about 10 minutes on weekends. As I was driving, I could see a plume of thick black smoke to the west of Morwell and coming from the Hernes Oak direction.
44. As I was driving, I telephoned George Graham. The call was at about 1:39 pm. I told George that the fire at Hernes Oak had become active, and posed a threat to the Mine.
45. From a radio/telephone log sheet provided to me by Hazelwood's security contractors Diamond Protection (copy at **Annexure 9**), who also assist in fire and emergency response within the Mine, I understand that the CFA were contacted by the Mine at 1:40pm. From a communication log sheet provided to me by Alan Roach (copy at **Annexure 10**), I believe that Alan Roach further contacted the Traralgon ICC at 2:30pm, 2:43pm, and at various other times during the course of the afternoon.
46. When I arrived at the Mine at approximately 1:45pm, I went to the Mine Shift Supervisor's Office in the Mine's Administrative Building above the southern batters of the Mine. At that time, the Rostered Shift Supervisor, Ian Wilkinson, was out in the Mine. Under the Mine's fire policies, the Mine Shift Supervisor has initial responsibility for managing the response to an immediate risk, or instance of, fire. I was not surprised that Ian was out in the field, playing a hands-on role. Ian Wilkinson is highly experienced with fires at the Mine.
47. From the Mine Shift Supervisor's office, I telephoned Alan Roach to advise him that I had arrived. At that time, Alan was also out in the Mine. I then telephoned Luc Dietvorst at 1:49pm to brief him on the situation.
48. The Mine Shift Supervisor's office is situated next door to the Coal Centre Attendant's office, which also doubles as the Communications Control Centre for the Mine. I positioned myself in the Coal Centre Attendant's office for a period of time, to monitor the communications coming in from the Mine, and to assess the severity of the fire situation.
49. By this time, communications were continual – on the fixed lines, the radio, and on mobile telephones, as Mine personnel were reporting on individual fire issues within and around the Mine. It was clear that the situation was escalating. The Control Centre Operators were working very hard, in very challenging circumstances.
50. From the communications I overheard, there were concerns that the Hernes Oak may impact upon the north western boundary of the Mine. We had Mine and RTL personnel in that part of the Mine monitoring the situation. I recall being informed by the Coal Centre Attendant that Ian Wilkinson was on or near the operating face of the Mine (which is at the western end), and that additional water sprays were being activated on the north west batters. At this stage, the situation appeared serious, but being actively managed, and relatively under control. Alan Roach's notes indicate that a fire alert was issued at 2pm, which is generally consistent with my recollection.
51. Whilst in the Coal Centre Attendant's office, I was told that an employee in the 1x7 services crew, _____, had suffered a facial injury whilst activating a spray on the north west batters of the Mine. _____ was ultimately taken to hospital in an ambulance. A copy of the Mine's Main Gatehouse security log records an ambulance coming onto site at 2:10pm: see **Annexure 11**. A copy of the report made to Worksafe in relation to the injury suffered by _____ is at **Annexure 12**.

52. According to my mobile phone records, I called George Graham again at 2:11pm and gave him an update on the situation. As this was one of several calls to George this afternoon, I can't remember what I said on that call specifically although I do recall George advising me that he was in Melbourne but was heading back to the Mine.
53. I recall that at approximately 2:15pm, Ian Wilkinson returned briefly to the Mine Shift Supervisor's Office next to the Coal Centre Attendant's Office, and spoke briefly to me. At this time, Ian indicated that there was a spot fire within the Mine boundary on the northern batters. I can't recall the other locations that were mentioned at that time.
54. From the Diamond Protection radio/telephone log at **Annexure 9**, a Diamond Protection Incident Report at **Annexure 13**, and from Alan Roach's log at **Annexure 10**, I am informed and believe that from approximately 2:05 pm the Diamond Protection fire tanker (known as "T2") was on the southern batters of the Mine below the Morwell Open Cut Control Centre ("MOCCC"), at the conveyor point/conveyor transfer point 7 ("TP7") dealing with a fire in that location. Diamond Protection's notes indicate that by 2:38 pm, the Diamond Protection personnel were being supported by RTL personnel and Mine employees (referred to in Diamond Protection's notes as MOC (Morwell Open Cut) personnel).
55. Shortly after 2:00pm, I was told for the first time that there was another fire in the vicinity of the Mine – near Driffield, which is to the south west of the Mine.
56. From around this time, Mine and RTL personnel began arriving at the Mine to assist with fire protection measures. Two RTL contractors had manned the additional water carts brought into the Mine on Saturday, 8 February 2014 and Sunday, 9 February 2014 under the Mine's Fire Preparedness Policy. I stepped outside of the Mine Administration building at approximately 2:30pm, and whilst outside, I made a series of phone calls, including calls at 2:38pm and 2:48pm. The 2:38pm call was to a Health and Safety manager, Adrian Marshall. This was most likely to arrange for Adrian to meet Daniel Delle Valla at the hospital, consistent with standard procedures. Policy requires that an officer from HR or OHS attend a hospital with the employee.
57. I spoke again to George Graham at 2:52pm, who was heading towards the Mine from Melbourne. I advised George that the situation was very serious, and that I would be ramping up the emergency management structure within the Mine by declaring a "full blown emergency" in accordance with the Emergency Response Plan (section 2.12), and opening an Emergency Command Centre ("ECC") to manage the incident. The declaration of an emergency confirms the seriousness of an incident, and ensures that suitable personnel are brought into managing its response, for example by way of the appointment of an Emergency Commander, and later, if need be, escalation of the emergency response by way of the appointment of a Significant Incident Management ("SIM") team, comprising senior managers.
58. I walked across to a position on the southern batters that has been referred to as "the knuckle" by the CFA. It is the area where the south eastern and eastern batters of the Mine meet. This spot provides a good overview of the eastern side of the Mine.
59. From this position, on the horizon, I could see a 180 degree arc of smoke, from the Hernes Oak direction all the way through to the Driffield direction. The smoke was starting to severely impact visibility within the Mine.
60. At this time, I observed that the wind had swung around to a westerly or south westerly, and was gusting in powerful bursts. I observed that the smoke from the Driffield fire was now advancing towards the Mine, and in particular towards the operating face of the Mine. I

observed debris, including burning embers, travelling through the air into the Mine from the direction of the Driffield fire and being deposited on the southern side of the Mine.

61. I knew that this material had the potential to cause fires within the Mine, because during Black Saturday similar materials were deposited on my own property. I remember thinking to myself that the situation had deteriorated even further, in the space of just 3 – 4 minutes. The phrase “perfect storm” came into my mind, and I was very concerned by the external fire threats, and related issues within the Mine. At this time, I could see the fire activity on the northern batters.
62. I note from the telephone/radio log kept by Diamond Protection (**Annexure 9**), that at 2:50pm they received a report of “Ash falling from Yinnar side on location”. Yinnar is next to Driffield, and this record is consistent with my own observations at approximately the same time regarding material from the Driffield fire being deposited on the Mine.
63. Whilst I was situated on the southern batters, I received further telephone calls from Alan Roach, who gave me further situation reports in relation to the fire activity from his position in the field.
64. I re-entered to the Mine Administration building at approximately 3pm, where I continued to monitor activity in the Coal Centre Attendant’s office. I met Alan Roach at around 3:10pm when he came back from the field. I directed him to set up an ECC in the Mine Training Centre above the eastern batters of the Mine, and to make contact with Romeo Prezioso, Senior Mine Planner, to advise him that he was to assume the Emergency Commander (“EC”) role.
65. I wanted Romeo to assume the EC role because Ian Wilkinson was dealing with the spot fires within the Mine, and because Romeo knows the Mine incredibly well, is highly experienced with fires and emergency response having been 2IC in previous fire incidents and also a rostered ESLO. He also knew the Mine’s emergency procedures and fire services infrastructure very well following several decades of work within the Mine.
66. The Mine ECC was formally established at approximately 3:20pm, when Romeo arrived at the Mine Training Centre from the field. Romeo had been at the Mine for approximately an hour at this point, having come to the Mine voluntarily after he observed the Hernes Oak fire activity increase.
67. Prior to assuming the Emergency Commander role and stationing himself in the Training Centre, Romeo had been out in the Mine with the 1 x 7 crew, who are responsible for maintenance and fire services. I recall that as EC, Romeo returned to the field to assess the situation and oversee the fire response measures being undertaken. I understand those measures included the activation of sprays on the north western batters, to provide a water break between the fire located on the northern batters and the operating face of the Mine.
68. By 3:00pm, Ian Wilkinson’s team were making phone calls to night shift personnel (who were due to start work at 7:00pm), to have them come in early to assist in the fire response.
69. Between approximately 3:30pm and 4:30pm in particular, the fire about the northern batters grew considerably in size. I received reports that the wind was pushing this fire rapidly up the batters, and that it was getting out of control.
70. I stationed myself in the ECC throughout the afternoon. I could hear over the radio operating in the ECC that several spot fires were on the operating face of the Mine. From the radio, I could tell that 1x7 crew personnel were putting on additional sprays and monitors. From the radio

reports, the fires on the operating face were minor fires that had been addressed early on, and just needed to be managed so that they did not develop into full blown fires.

71. By about 4:00 pm, I was aware that there were fires on the northern batters, on the floor of the Mine in an area known as the overburden dump towards the northern batters, and spot fires about the operating face. I cannot recall whether at this stage I was aware of fire on southern batters.
72. I recall that when Romeo Prezioso arrived back at the ECC, he advised me of a grass fire outside of the Open Cut requiring the Mine's attention, which may have been above the eastern batters of the Mine. Throughout the afternoon, there were crews working at the various fire locations, comprising Mine operations staff (2 x 12 crew), the maintenance and fire services team (1 x 7 crew), RTL contractors, and Diamond Protection contractors. As EC, Romeo was assisting in the direction of these crews. In addition, there were several lead personnel in the field such as David Bell (RTL) Dean Soares (Services Supervisor) and Dave Shanahan (Mine Services Superintendent) directing resources and identifying priorities.
73. By the mid-afternoon, the Strzelecki Highway and Princes Freeway between the Morwell and Moe were closed due to the Hernes Oak fire activity, and there were other road closures due to other fires in the region. This meant that Mine personnel including George Graham (on his way from Melbourne) and Acting Mine Director James Faithful (on way from Warragul) encountered significant difficulty in reaching the Mine. In James' case, what would normally be about a 20 minute journey, took nearly two and a half hours due to those road closures and associated traffic.
74. In addition to the fires about the northern and southern batters, by the late afternoon, the area above the northern batters of the Mine had emerged as a key priority. A grass fire was threatening Mine assets including the RTL Depot, and, critically, a power substation known as MWN, and significant power assets that run down the northern batters.
75. The Diamond Protection telephone/radio log at **Annexure 9** notes that by 4:43pm, the Diamond Protection tanker had been tasked to the MWN substation. The log indicates that it stayed in that area for some time, with CFA support, and was addressing grass fires some 200m away.
76. Up until approximately 5:30pm, we had only received limited support from the CFA. Alan Roach had keeping the Traralgon ICC updated on the deteriorating situation. Various aircraft, which I assumed were working for the CFA, responded to the fire on the northern batters (and were dropping water and retardant).
77. My belief at the time was that the limited CFA support was due to the extent of the fire activity around the Mine, which included:
 - the Hernes Oak fire which threatened the Yallourn mine and power station, the western part of Morwell and the Australian Paper Mill that day;
 - the separate Driffield fire; and
 - several other fires in the region of the Mine e.g. in the Strzelecki Ranges.
78. The CFA support that I was aware of within the Mine prior to around 5:30pm, consisted of:

- sporadic aerial support by aircraft working for the CFA (a helicopter and fixed wing aircraft), particularly in relation to the fires on the northern batters;
- a local CFA team that attended the ECC, and may have assisted with a grass fire above the eastern batters, but were soon called away; and
- several CFA tankers attending a grass fire above the northern batters. As regards this support, however, I recall that Alan Roach advised me that within approximately an hour of arriving on site, these CFA resources were been called away for asset protection away from the Mine. By this time, there was fire activity on Latrobe Road in Morwell and I believe that they were likely required to protect houses.

79. The remainder of the late afternoon was a flurry of activity, and it is more difficult for me to recall specific tasks and times. I recall that our key priorities were as follows:

- ramping up resourcing, by bringing in approximately 10 - 20 additional personnel by around 4pm. Commendably, however, I recall that several Mine personnel and contractors contacted the Mine to see if they could assist in fire prevention or fighting efforts, and in other cases, voluntarily reported to the Mine early;
- dealing with additional spot fires as they developed; and
- monitoring the status of the fires on the northern batters and south eastern batters, which were the key concerns within the Mine itself due to their out of control nature.

80. I had remained in close contact with George Graham throughout the afternoon as he battled to make his way to the Mine. He arrived at the Mine at about 5:00 pm, after having had to take a massive detour by reason of the road blocks.

81. Acting Mine Director, James Faithful, had arrived at approximately 5:00 pm also.

82. Luc Dietvorst arrived at approximately 4:00 pm.

83. After his arrival, James Faithfull took a major role within the ECC. He worked with Romeo Prezioso to co-ordinate logistics, and direct resources to the areas of greatest need. James eventually took over the role of Emergency Commander from Romeo, and performed that role overnight until the following day, when we was relieved by Romeo Prezioso who took the day shift.

84. Throughout the late afternoon and into the evening, Mine personnel and RTL contractors were heavily involved in protecting the operating faces of the Mine against the fire front advancing from Driffield, and related ember attack. These personnel were using dozers and graders to clear mineral earth breaks, and patrolling for fire and extinguishing embers. The front of the Hernes Oak fire burnt right up to the Morwell River diversion, about 1.5 kilometres from the top of the operating face of the Mine. The Driffield fire burnt along the western side of the Morwell River diversion for several kilometres, and posed a threat to the operating face of the Mine throughout this period.

85. During the course of the afternoon, I briefed Mine Director Garry Wilkinson who was on leave in Queensland. Garry had already spoken to James Faithful (who was acting in his role).

86. From about around 5:30pm, the Mine employees and contractors were dealing with the fire on the south eastern/eastern batters of the Mine, which had been burning further to the east throughout the afternoon, and, by that time, was making its way out of the open cut due to the wind, causing grass fires. The Diamond Protection phone/radio log at **Annexure 9** notes “a grass fire on road side to slide gate” at 5:30pm. The fire burning up the eastern batters also damaged the M690 conveyor, and an Energy Brix conveyor.
87. The Diamond Protection phone/radio log at **Annexure 9** notes that additional CFA resources started arriving through the rear slide gate near from Energy Brix at approximately 6:44pm. This is consistent with my recollection.
88. It was from the early evening onwards that I recall the CFA being a noticeable presence at the Mine. At some point, I recall that either Ross Male or Peter Lockwood of the CFA advised me that the CFA was taking control of the fire, as Incident Controller. It is the standard procedure during serious fire incidents at the Mine, for Incident Control to be assumed by the CFA. Assumption of incident control means that the CFA is responsible for the fire, and has statutory powers under the *Country Fire Authority Act 1958* (Vic) to enter onto the Mine (which is private property) and undertake a range of activities in relation to the fire, in order to bring it under control.
89. In fact, the assumption of Incident Control of the fire by the CFA did not change much practically on that first evening. This is understandable in light of factors including:
- a. the relatively limited CFA resources;
 - b. the Mine’s better understanding of the locations of the individual fires, and of critical infrastructure; and
 - c. the complexity of the layout of the Mine, and the dark and smoky conditions. In relation to this issue, it was necessary for Mine personnel to escort the CFA throughout the Mine.
90. Sometime between 5:00pm and 7:00pm, whilst it was still daylight, the ECC lost all power. Whilst at that stage I had no idea why the ECC lost power, I was later advised by an Electrical Engineer employed at the Mine, Steve Dargan, that two separate SP Ausnet 66kV power lines which run across the northern batters, and supply the two key Mine substations Morwell North (“**MWN**”) and Morwell West (“**MWW**”), had been compromised by the fire. One internal power line situated on the northern batters and above the Mine Dirty Water Pump Station suffered fire damage as well.
91. The separate Morwell East substation (“**MWE**”) within the Mine, which powers certain Mine and external infrastructure including one water pumping station on the Hazelwood Pondage (Pumphouse 50), is separately supplied from a 11kV power source, and was unaffected by the fire damage to the 66kV lines. The fire damage to the Mine’s power system above the HARA did, however, cause the power supply through MWE to be tripped (with automatic surge protections operating). The two MWE 6.6kV feeders were tripped several times due to fire related faults. When these faults were found and isolated power supply was restored by an SP Ausnet operator who had attended the mine site in response to reported faults.
92. At approximately 8pm, in response to a number of factors including smoke and the loss of power to an MWE feeder and consequently the Training Centre, we relocated the ECC to a meeting room in the Mine Administration building. However, there was no power there either,

but it was still a better location as it wasn't being subjected to as much smoke as the previous ECC location had been.

93. The Mine also arranged for a gravity fed pipeline from Loy Yang to be charged, so as to provide some additional water to the water tanks that service the fire services infrastructure within the Mine.
94. The damaged 66 kV lines and resulting loss of power to MWN and MWW limited the power supply to the fire services system in the Mine, which is a reticulated water system powered by electric pumps. It also resulted in a loss of power to the Mine's dredgers and conveyors, meaning that coal could not be dug or conveyed to the Power Station.
95. Following the loss of power to MWN and MWW, the immediate priority was restoring power to the fire service pumps ordinarily powered through those substations, given the ongoing fire activity. The Mine's shift electricians and Steve Dargan, working with an SP Ausnet operator, worked incredibly hard in extremely challenging and trying conditions throughout the evening to restore the power supply. A series of faults had to be found and isolated in dark and smoky conditions, and switching had to be undertaken both in the field and at the substations.
96. I recall that James Faithful, working together with then Services Superintendent Matt Weddell, identified asset protection priorities outside of the open cut, for protection by the CFA and Mine personnel. There was not much that could be done in relation to the then sizeable northern and southern batters fires in the dark, and given the reduced water supply arising from the loss of power to the majority of the fire service pumps.
97. The Mine assets identified for protection by the CFA and Mine personnel overnight included the MWN substation above the northern batters of the Mine and high voltage lines to the south west of the Mine. Crews of Mine and CFA personnel were in place protecting these assets. Mine personnel and contractors and crews also patrolled the perimeter of the Mine for spot fires.
98. The priority of senior management on the evening of Sunday, 9 February 2014 was on ensuring the safety of Mine personnel. We were emphasising safety first, not to rush or take any unnecessary risks, and encouraging personnel to work in pairs. We tracked who was in the Mine, encouraged people to take breaks, and limited the numbers of personnel within the open cut itself given the potential carbon monoxide risks and hazards of the fire itself.
99. Several operational personnel were deployed to the operating area of the Mine, a considerable distance away from the northern and southern batters fire activity, to be on fire watch. These personnel were working in pairs for safety reasons, and we took steps to track on a whiteboard their positions and a suitable means of communication (e.g. radio or phone).
100. By approximately midnight, an additional pump station at the Hazelwood Pondage (Pumphouse 53) and one of the Dirty Water pumps in the base of the Mine was powered out of MWE, following some switching works undertaken by the Mine's electricians.
101. I recall that power was restored to the ECC in the early hours of Monday, 10 February 2014.
102. Several hours later, at approximately 6am and after approximately 12 - 15 hours of continuous activity by the Mine's electricians, a redundant SP Ausnet substation, MHO, was connected to the Mine's power distribution system to supply power to a series of conveyors and thereby enable coal to be supplied to the Power Station, which by this time had almost exhausted the

coal reserves in the Slot bunker. The Mine is designed to hold reserves of coal at the face and dig them as required, with only a small buffer reserve in the Hazelwood Slot Bunker. Had the reserves in the Slot Bunker been fully exhausted, the Power Station would have ceased operations.

103. In the early hours of Monday, 10 February 2014, I understand that Ross Male of the CFA prepared an Incident Action Plan for the Day Shift on 10/2/14. A copy is attached at **Annexure 14**. It summarised the status of the fire activity at that time as follows:

- *Have uncontrolled fire on the North Batter of 3 levels approx. 2 km in length;*
- *Have uncontrolled fire on the East Batter Mine approx. 1km in length;*
- *Both of these batters are in older disused section of the Mine;*
- *Uncontrolled fire on the floor of the mine approx. 500m x 500m;*
- *Conveyors and mine infrastructure are not affected;*
- *Work is being done to restore 66kV power to mine so that pumps can be reinstated so that water drenchers can protect these assets;*
- *Coal production has stopped to Power Station. Hazelwood Power Station is shutting down at this moment. Down to 2 units and will be off line at 0700 if coal production cannot be started;*
- *At the moment CFA tankers are being used to provide asset protection to key assets within and around mine, 66 kV power poles on northern side of mine, northern Morwell Substation, clean water pump station and dirty water pump station within mine;*
- *Work is being done to restore power to the mine. Dredge II is expected to be back in production in the next couple of hours;*
- *Water has been lost to 2 water pipe lines. Work is being done to divert water to maintain pressure to mine infrastructure.*

Overarching comments as regards the fire activity on Sunday, 9 February 2014

104. Hazelwood personnel, many of whom have worked at the Mine for decades, are highly experienced in responding to, and extinguishing, fire in the Mine.

105. From what I observed on Sunday, 9 February 2014, I consider the fire activity to have been of an unprecedented magnitude and complexity.

106. Within the space of two to three hours, the Mine had moved from monitoring the “contained” Hernes Oak fire several kilometres away from the Mine, and patrolling for fire in accordance with fire preparedness measures, to dealing with multiple individual fires in and around the Mine, in extremely challenging weather conditions (heat and strong and shifting winds).

107. The individual fires which threatened and commenced within the Mine on the afternoon of Sunday, 9 February 2014 included:

- a. the sudden “flare up” of the Hernes Oak fire to the north west of the Mine, which rapidly burnt directly towards the Mine from about 1pm, prior to a wind change at approximately 1:40pm. This fire was observed by Mine personnel to have burnt within the Mine licence boundary in the north western part of the Mine;
- b. “spotting” from the Hernes Oak fire, observed by Mine personnel in the north west of the Mine, which was observed by Mine personnel as giving rise to fires within the Mine licence area, and which, in my opinion, may have been responsible for a number of the spot fires within the open cut;
- c. spot fires on the northern and southern batters of the Mine, and on the floor of the Mine in the OB dump (each a considerable distance apart), within a very short space of time;
- d. the Driffield fire, which commenced at the time the Mine personnel were responding to the fires mentioned above (and at or about the time of a dramatic wind change) which meant that the Driffield fire burnt directly towards the Mine’s, operating coal face and critical infrastructure;
- e. a grass fire in the northern part of the Mine, which threatened critical mine infrastructure such as the MWN substation;
- f. spot fires in multiple locations on the operating face of the Mine, likely to have been caused by ember attack from the Driffield fire;
- g. spot fires on the grass level in the western part of the Mine licence area, as the Driffield fire burnt right to the Morwell River diversion, which forms the western boundary of the Mine; and
- h. grass fires above the eastern batters, caused by the fires on the southern/ south eastern batters of the open cut being pushed out of the Mine, due to the wind conditions, despite the fire-fighting efforts of Mine personnel at both locations, utilising fixed and mobile infrastructure, and aerial attack of these fires by CFA aircraft.

108. It was an incredibly challenging day. The fires on the northern and southern/eastern batters and floor of the Mine were unable to be contained by Mine personnel on Sunday, 9 February 2014, and, by the time that the CFA took over operational control by approximately 7pm, there were extensive fires.

109. I received reports of the fire activity “leaping” up and across the northern and southern batters due to the wind conditions. It’s difficult for any level of resources to contain this. Nevertheless, the multitude of the individual fires within and around the Mine particularly between 2 pm and 5 pm limited the available personnel at each fire location. Ordinarily at the Mine, fires occur in a single location, and if the fire is significant, the entire workforce can deploy to that location to assist.

110. That the northern batters, southern batters and overburden dump fires subsequently took a significant amount of time to extinguish, with related smoke and ash impacts on adjacent

residents and businesses, is very much regretted by myself and all Hazelwood personnel, the majority of whom (myself included) live locally and are active members of the local community.

Concluding comments

111. The impact of the fire activity of Sunday, 9 February 2014 as regards the Mine and Power Station could have been much worse, if not for the efforts of Hazelwood personnel and contractors. I consider the “successes” of Hazelwood’s fire response on 9 February 2014, to have included:
- a. the safety of Mine personnel throughout the fire-fighting operation on Sunday, 9 February 2014 (with only one major injury related to malfunctioning equipment);
 - b. the successful protection of the Mine’s operating face, major infrastructure, and coal reserve (with 26 million tonnes of coal reserve) from multiple external fire threats;
 - c. the extinguishment of multiple spot fires within the Mine;

the protection of Mine infrastructure such as the MWN substation and dredgers and conveyors supplying coal to the Power Station in the face of active proximate fire activity;
 - e. the effective activation of Hazelwood’s emergency and fire procedures within a very short space of time, with highly experienced personnel overseeing the fire-fighting effort;
 - f. the restoration of power supply in challenging circumstances; and
 - g. the protection and continued operation of the Hazelwood Power Station throughout the fire emergency, thereby maintaining the supply of Victoria’s base load electricity.

These successes were notwithstanding that on Sunday, 9 February 2014, due to the extensive bushfires in the vicinity of the Mine, the Mine received limited assistance from the CFA in relation to fire-fighting efforts within the Mine prior to the evening.

STEVEN WILLIAM HARKINS

Dated: