

IN THE MATTER OF THE HAZELWOOD MINE FIRE INQUIRY

WITNESS STATEMENT OF RICHARD MATTHEW POLMEAR

1. My name is Richard Matthew Polmear. My work address is Brodribb Road, Hazelwood, Victoria.
2. I am employed by Hazelwood Power Corporation as Carbon Efficiency and Improvement General Manager.
3. I have been employed at the Hazelwood Mine ("**Mine**") in various capacities since April 1982 when I transferred from Yallourn Open Cut, where I had worked since January 1980.
4. My various roles at the Mine over the past 32 years have included Production Scheduling Superintendent (1990-1992), Services Superintendent (1992-1994), and Mine Director (2010-2012).
5. In my roles as Production Scheduling Superintendent and Services Superintendent, I was responsible for Fire Services at the Mine.
6. The Mine was first established in about 1950 for the purposes of providing coal to Morwell Briquette & Power, which is now Energy Brix. **Annexure 1** is a plan of the proposed Morwell Project at 1951, which shows the Briquette Plant on the right hand side of the open cut. What we would now call the northern batters of the East Field are at the top of the open cut as appearing on the plan, and the eastern batters run vertically alongside Energy Brix. Morwell is depicted at the top of the plan.
7. The Mine started operating in about 1955, with coal being excavated from the East Field. The Mine initially had a capacity of about 4.5M tonnes per annum. In his book, "*A History of Morwell Open Cut: Its Origins and Development to June 1995*", the author J. A. Vines says that by December 1955 fire protection activities "... were in full swing ...", including water reticulation utilising 8", 10" & 12" diameter pipe.
8. Following a decision in 1957, mining equipment was progressively changed from bucketladder excavators loading trains to bucketwheel excavators loading conveyors. The first of 3 large bucketwheel excavators commenced operations in 1964, and the last commenced operations in 1972.
9. In 1964 the Hazelwood Power Station commenced operations, which resulted in the demand for coal from the Mine increasingly dramatically to about 13.3M tonnes in 1973, with a peak demand under Government ownership of about 16.02M tonnes in 1977.
10. Water pipes were laid on each permanent bench and each operating level as the Mine progressed, and serviced the mining operations. As the operation progressed into other fields, the pipes on the permanent benches were retained as a means of fire protection.
11. The East Field of the Mine (including the northern batters) was developed between approximately 1955 and 1980. Consequently, the northern batters pipework was amongst the oldest pipework within the Mine at the time of privatisation in 1996.
12. As demonstrated by fire service plans held in the Hazelwood Drawing Office dated January 1977 and July 1980, pipes were laid in the East Field in a manner that now appears as haphazard i.e. the pipework did not follow the relatively linear design of mains, droppers, and feeder pipes in newer parts of the Mine. This was due to the Mine development process and the large number of changes driven by increasing coal demands and changing equipment. The pipes installed throughout this period also had little or no internal or external corrosion protection, something which was not generally incorporated until later. Coal is acidic and as a result the pipes, many of which were installed directly on the ground without corrosion or cathodic protection, were particularly subject to degradation.

13. From about 1975 to the mid-1990s, the South-West Field of the Mine was developed. Fire services pipes were installed on batters in the South-West Field as operations progressed.
14. By the time of my appointment to the Production Scheduling Superintendent role in 1990, the problem of corroded and failing pipes in the oldest areas of the Mine, particularly around the northern batters on the East Field, was well recognised.
15. The real problem with the old pipes was that they would leak or fail, and water would enter the batter and cause batter movement and potential instability. I recall one instance in about the late 1980s or early 1990s where a leaking fire service 300mm diameter pipe under a road on the northern batters caused a 2 metre vertical movement in the batter, which was a very serious concern particularly given the proximity of that batter to other infrastructure such as the Princes Freeway.
16. Attempts to repair the older fire service pipes required welding works, which were causing a number of fires in areas that otherwise had low fire risks.
17. By about the early 1990s, there was an established practice of “isolating” corroded pipes in the East Field so that they would not leak. This meant that valves were closed such that water wasn’t regularly sitting in, or running through, the pipes, but that in the event of a fire, the valves could be opened and the pipes charged with water and used in the short term for fire fighting operations.
18. Eventually, pipes became so degraded that they could no longer hold pressure, and they would be removed and used elsewhere in the Mine as a drainage pipe, provided that they were above 300mm diameter. Drainage pipe is pipe that channels water away from a particular area. Drainage pipes do not need to be able to hold pressure to perform successfully. Pipes smaller than 300mm diameter are ineffective as drainage pipe, as they are not capable of channelling a sufficient volume of water and are too easily blocked by coal in the water.
19. In about 1992 I recall reviewing several years of prior fire report records for the northern batters of the East Field and noting that the vast majority of the instances of fire were the result of repair work undertaken on old pipes. The northern and eastern batters of the East Field of the Mine were by that time “worked out” areas – i.e. mining was not going to proceed any further to the north or east.
20. At this time, the fire protection policy of the SECV was as set in the 1984 SECV *Latrobe Valley Open Cuts Fire Protection Policy Revision 1*, copy of which is at **Annexure 2**. The 1984 Fire Protection Policy was a revised version of the SECV’s 1981 *Latrobe Valley Open Cuts Fire Protection Policy*, which was developed following the 1977 fire at the Mine. The 1984 Fire Protection Policy was based on the establishment of a system of fire protection in open cuts, which prioritised protection of all personnel within the open cut, and the protection of all plant and equipment required for the maintenance of coal winning operations. The Fire Protection Policy set out the levels of protection to be provided, with different requirements for (amongst other things) operating areas and worked out areas (floor and batters).
21. Under the 1984 Fire Protection Policy, the requirements for worked out batters included:
 - fire break zones in the form of metallised vehicle access ramps up to 500m apart;
 - the construction of earthen/clay mounds on the batters which limited the amount of exposed coal, and relatedly, the size of any fire which may commence (a practice known as “paddocking”); or

- fixed spray breaks, which were sprays fixed to fire services pipes, which were fed off water mains.
22. The characteristics of the Mine created particular challenges as regards fire protection. It is much deeper than the Yallourn mine, with the result that the supply of water through reticulated fire service pipes is much more complex, as safe operation requires pressures to be maintained between 40m and 115m head on each level for static and maximum demand. At the Mine this requires 3 different pressure zones that could not be safely interconnected. Further, the practice of paddocking via earthen/clay mounds, if implemented at the Mine, would have led to access issues – i.e. if there was a fire, vehicles and personnel would not have been able to quickly and safely access it. Paddocking would have also prevented access for rehabilitation of the land.
 23. In 1992, whilst I was employed by the SECV, as a result of the problems with the ageing pipework in the northern batters of the East Field, a Risk Assessment was sought from Richard Oliver International Pty Ltd for the purpose of seeking an exemption from the requirements of clauses 1.1.4 and 1.1.5 of the 1984 Fire Protection Policy in relation to the worked out areas and batters, including the north eastern and eastern batters.
 24. Richard Oliver International Pty Ltd produced a Risk Assessment Report, which recommended that an exemption to the 1984 Fire Protection Policy was not appropriate or justifiable, but that the Policy could be revised by adopting certain measures in worked out areas, including the provision of Tanker Filling Points. A copy of the Risk Assessment Report is at **Annexure 3**. The Risk Assessment Report contains statistics regarding the instances of fire in worked out areas, which as I mentioned above, were arising from pipe repairs.
 25. Shortly after, Generation Victoria (“**GV**”), a statutory authority, took over SECV’s electricity production assets, and undertook a review of the SECV’s Fire Protection Policy.
 26. In 1994 I was appointed Business Development Manager at the Mine, and at about that time, GV produced the *Latrobe Valley Open Cut Mines Fire Service and Code of Practice*, which revised the SECV’s 1984 Fire Protection Policy. The GV’s 1994 Fire Service Policy, which was signed by the Mine Managers of each of the three Latrobe Valley open cut brown coalmines (Loy Yang, Yallourn and the Mine), changed the requirements with respect to worked out batters by introducing a requirement for Tanker Filling Points to be provided such that a tanker on any part of the worked out batters is within 5 minutes travel of a Tanker Filling Point, and fixed sprays to be used in conjunction with droppers for the Tanker Filling Points in order to provide wetted breaks. Fire break zones as provided for in the SECV’s 1984 Fire Protection Policy were provided for as an alternative. A copy of GV’s 1994 Fire Service Policy is at **Annexure 4**.
 27. Following the introduction of GV’s Fire Service Policy in 1994 and through to about 2007, and having regard to the requirements for worked out batters in GV’s 1994 Fire Service Policy, the removal of leaking and degraded pipes from worked out batters which could not hold pressure, and using those pipes for drainage, continued. This was particularly the case with respect to pipes in the northern batters as opposed to pipes in the eastern batters of the East Field, as there was no operating plant on the northern batters. The eastern batters during the period from about 1969 to 2006 had operating, plant, namely conveyor installation systems which supplied coal to Energy Brix, which required protection in accordance with GV’s 1994 Fire Service Policy.
 28. In 2007, as a result of a flooding incident at Loy Yang mine, old fire service pipes were no longer re-used as drainage pipe, as a minimum drainage pipe size of 900 mm diameter was adopted within the Mine. The Loy Yang Mine incident resulted in coal batter movement being induced as a result of coal lumps floating down drains and blocking the drainage pipes, hence Hazelwood’s adoption of 900 mm diameter pipes to allow passage of large coal lumps.
 29. In 2007/2008, part of the northern batters was rehabilitated. In order for this rehabilitation to be undertaken the fire services main in this part of the northern batters was removed. The recovered fire services main was used for fire service mains extensions in other parts

of the Mine, provided it was deemed in satisfactory condition for such use. If it was not in satisfactory condition, it was scrapped.

30. I am unaware of any pipework being removed from the northern batters of the Mine for any reason other than it had become unserviceable, by reason of the development of the internal overburden dump (during the period 1998 - 2003), the construction of the Hazelwood Ash Retention Embankment ("**HARE**") (which followed the creation of the internal overburden dump), or by reason of rehabilitation works.

RICHARD MATTHEW POLMEAR