WITNESS STATEMENT OF GRAEME FRESHWATER

I. Glacille Fleshwater. Of the living well. Victoria. State as follows	I, Graeme Freshwater, o	f	Morwell, Victoria	. state as follows
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Personal background

- I have lived in the Latrobe Valley for most of my life, having been raised on a farm near Sale.
- 2. Between 1960 and 1965, I undertook a Diploma of Civil Engineering at the Sale Technical School and then at Caulfield Institute of Technology.
- I was employed by the State Electricity Commission of Victoria (SECV) between 1966 and 1995.
- 4. Between 1966 and 1988, I held several engineering and section head roles. I started my career as Probationary Cadet, during which time I gained experience in various engineering and production roles in the three Latrobe Valley mines, namely the Morwell Open Cut (now called Hazelwood), Yallourn and Loy Yang and at head office in Melbourne. In 1973, I was promoted to Section head in the Morwell Open Cut, Yallourn and Loy Yang mines, during which time I was predominantly involved in the production area and responsible for a range of mining activities including excavation, transportation and bunkering of coal and dumping of overburden, fire and water services, artesian dewatering and dump rehabilitation.
- Between August 1988 and August 1992, I was promoted to Mine Manager of the Morwell Open Cut Mine. I have discussed my role as Mine Manager in more detail below.
- 6. Between August 1992 and May 1995, I was employed as Mine Manager for the Loy Yang Mine. My responsibilities included managing and operating the mine to ensure a reliable supply of brown coal to its customers, namely Loy Yang A Power Station, Mission Energy and Auschar Dried Coal Plant; contributing to the management of Generation Victoria and the disaggregation process of businesses into new entities; being the Lead Manager for the outsourcing of maintenance and service functions; being involved in the establishment of the first Enterprise Agreement in the Mine; leading the introduction of Best Practice Program which included a strategic plan for the development of semi-autonomous work groups, and improving employee availability and reduced Workcover costs.

- 7. Since my retirement from the SECV in 1995 I have worked for various companies in the mining industry, either as a consultant or a short term employee. This has included some work at the Latrobe Valley open cut mines. Between November 1996 and May 1998, I was employed as Mine Manager at the Tambang Air Laya Coal Mine in South Sumatra. Some of my key responsibilities included introducing a health and safety committee, improved Mine and Dump planning and upgraded dump rehabilitation.
- 8. Between September 2002 and September 2008, I was an independent engineer and mining consultant to BDA. During this period I was a member of the overview committee for a review conducted by GHD of a fire at the Hazelwood Open Cut (formerly the Morwell Open Cut) in October 2006.
- 9. A copy of my curriculum vitae is attachment "GF-1" to this statement.

Morwell Open Cut

10. In my role as Mine Manager at the Morwell Open Cut during the years 1988 to 1992, I was responsible for the supply of brown coal to Hazelwood Power Station and the Morwell Briquette and Power Station; the introduction of a private operator to manage the overburden removal, improving safety performance and introducing mine rehabilitation plans and improved production plant performance.

Morwell Open Cut Fire Service

- During my employment with the SECV at the Morwell Open Cut, there was a dedicated fire service. The men in the fire service were trained in fighting brown coal fires and also carried out training exercises for the other mine operators before each fire season. The fire service worked day shift, seven days a week.
- 12. It was the fire service's job to maintain and service the pipelines and sprinkler systems, including moving the pipelines to keep up with the growing operational parts of the mine.
- 13. For fire safety, pipelines and sprinklers were installed to the whole of the mine, including the worked out areas. The sprinklers produced a rotating fine mist of water. The pipelines were connected to two pumping stations which could also access the Hazelwood Pondage. The pumps were powered by electricity.

- 14. The way we were trained to fight fires was to use the sprinkler system which provided a constant supply of water in a fine mist. We did not consider using helicopters to fight the fires in my time. I believe dumping water on a batter at 45 degrees causes the water to flow straight off the surface of the coal, taking with it loose coal. It creates a mess and has limited effect on putting out the fire.
- 15. I think that at one time, the fire service tried using foam to suppress fires with limited success. It was used in the 1977 fires. I understand that foam was used in the latest fire.
- 16. On days when it was hot or a fire danger day, the fire service personnel would arrive at work very early and turn on the sprinklers which would wet down the coal levels and batters.
- 17. The fire service nominated one of the team members to be on spotting duty on fire risk days. The office where the fire service was located had a view of the mine and had binoculars for spotting fires.
- 18. Within the mine, the head of the fire brigade had the authority to issue a "Fire Alert day" which meant the mine workers were limited in what they could do in the mine on that day. For example, they were not allowed to do any welding. The "Fire Alert day" was set out in the Code of Practice. A copy is attached at "GF-2".
- 19. Even in winter, the fire brigade was busy because there were always a lot of small fires starting in the mine, such as those fires started around the conveyers. They were also constantly checking for maintenance issues around the mine, and attending to the maintenance that was needed.
- 20. The fire service also ensured that all vegetation in the mine was removed.

1977 Morwell Open Cut fire

- 21. I was working at the Morwell Open Cut in November 1977, when there was a significant fire that was in the operational part of the mine. It was on the floor of the mine and was not in batters. The fire started by coal dust igniting from the exhaust from one of the mine vehicles. Coal dust is very fine and floats when it catches on fire, it can float around starting other fires.
- 22. At that time, there was a maintenance strike on at the mine and as a result the pipes servicing the sprinklers had not been moved along with the operational face. It was an extremely windy and hot day and the fire got away quickly because we couldn't get water from the sprinklers onto the coal face.

- 23. The fire was too big for the SECV fire service and for the CFA. The CFA volunteer firefighters did not have experience fighting a brown coal fire. I called the RAAF in Sale and asked for man-power to help us fight the fire. They sent 200 men who took direction from the fire service and helped to put out the fire.
- 24. The SECV set up a committee to review the mine fire in 1977. I was the secretary to the review committee, which produced a final report in June 1978. A copy of the report is attached at "GF-3". There were 28 recommendations made, one being that all vehicles had to have their exhausts modified to reduce the risk of igniting a fire in that way again.
- 25. The recommendations of the 1977 review committee were reflected in the Mine Fire Service Code of Practice adopted by the SECV.

Morwell Open Cut rehabilitation

- 26. During my employment at the Morwell Open Cut, all overburden was dumped outside of the mine. Because of the ratio of overburden to coal (1:6), the overburden cannot be dumped back into the mine for years because it takes that long to expose sufficient area to allow backfilling.
- I don't believe that the SECV started any rehabilitation of the Morwell Open
 Cut during my time working there. Although completed overburden dumps
 were rehabilitated.
- 28. Because the northern batters are so steep, they are very difficult to flatten or reshape. Also, it is not practical to cover them with clay because they are too steep. The sprinkler system and pipelines were also still being used on the northern batters when I was employed at the Hazelwood mine.
- 29. I understood that the rehabilitation plan for the Morwell mine was to create a lake by flooding the mine when the mining of it is complete. I never believed that was feasible, because flooding the mine would take a very long time and there is not enough water available to fill it.

My experience with the Hazelwood Mine Fire

30. On 9 February 2014, I was playing cricket at Hastings on the Mornington Peninsula. I received a phone call from my next door neighbour who told me that there was a fire in the Morwell area, that Holmes Road was closed and that I may not be able to get back into town.

- 31. I did manage to come back to Morwell later that day. The Hernes Oak fire did get close to the western end of Holmes Road where I live but our house was not affected.
- 32. Over the period of the fire, I noticed that the flat surfaces in our house became covered in fine ash or dust. I am the cleaner in our house so I did a few more clean-ups of the shelving and the house than usual. I kept the doors and windows closed, except for one small window. I have not looked in our roof cavity to see whether there is ash or dust from the mine fire.
- 33. I did not suffer from any real health effects from the smoke. I may have had a cough now and then. I had worked 30 years in the mines and never suffered from health issues. The smoke where we live in Morwell didn't particularly bother me, and I did not feel any need to relocate from our home.
- 34. My wife suffered with the smoke more than I did, although she did not need any medical attention. My wife works in Melbourne 3 days each week teaching ballet, during which time she stays overnight with her sister living there. She was therefore able to get away from the smoke for that time each week.

Submission

- 35. In the time I worked at open cut mines in the Latrobe Valley, there were hundreds of fires that started in the mines. The biggest of these was the 1977 fire in the Morwell Open Cut, which was brought under control within a week. I put this down to the dedicated fire service at each of the mines, who were always prepared for a fire and knew how to put it out quickly. None of the fires during my time got out of control in the way the fire did in February this year. I am concerned at the way this fire got out of control, and would like to know whether it is because practices have changed since I worked in the mines.
- 36. I put these concerns in a submission to the Inquiry which is attached at "**GF-4**".