

IN THE MATTER OF
THE HAZELWOOD MINE FIRE INQUIRY

STATEMENT OF BRYAN CHADWICK

I, Bryan Chadwick of 8 Exhibition Street, Melbourne, say as follows:

Professional background and role

1. I have been a hydrogeologist for 24 years with experience in environmental aspects relating to mining projects. I completed a Bachelor of Science (Hons), Geology at the University of London in 1990 and a Master of Applied Science, Groundwater Management and Hydrogeology at the University of New South Wales in Sydney in 1992.
2. My primary area of expertise in hydrogeology is the impact of groundwater systems on a range of mine sites. I regularly provide expert advice and evidence. I have been involved in leading programs to assess such impacts from proposed Greenfield sites to closure of existing facilities. I have also been involved in managing feasibility and closure studies for various geological and geographical settings for a range of infrastructure and mining projects. I have conducted lead contaminated groundwater investigations and designed groundwater remediation systems.
3. In 1999, I joined URS Australia as a Principal Hydrogeologist. In 2015, AECOM acquired URS and my employment continued with AECOM. My current role at AECOM is Technical Director – Environment. For convenience, I will refer to the entity that performed the liability assessments in this statement as URS.
4. A copy of my curriculum vitae is attached at **Annexure 1**.

Liability cost assessments for the Latrobe Valley Mines

5. On 27 January 2015, URS submitted a proposal to Department of Economic Development, Jobs, Training and Resources (DEDJTR) to undertake the liability costing assessment for the three Latrobe Valley mines. URS received formal notification of being awarded the project on 15 April 2015 and signed the contract with DEDJTR on 23 April 2015.
6. My role in the preparation of the liability cost assessment reports was to:
 - a. coordinate the team from URS in its interaction with the team at DEDJTR;
 - b. coordinate all requests form URS to DEDJTR for information and data;
 - c. identify the key risks and risk parameters;
 - d. provide advice on the water components to closure,
 - e. benchmark the closure against the Victorian regulatory framework; and
 - f. prepare the liability cost assessment reports.

7. The URS team also included Mr. Geoff Byrne and Dr. Adrian Bowden.
8. Mr. Byrne was previously Vice President for the URS Corporation and Global Mining Director with Environmental Resources Management (ERM). Mr. Byrne is currently a subcontractor working with AECOM. Mr. Byrne holds a Fellowship Diploma (Geology) from RMIT, a Master of Science from the University of London and a Diploma of Imperial College. Mr. Byrne's primary areas of expertise are mine closure planning, risk analysis and sustainability strategies. I attach a copy of Mr. Byrne's curriculum vitae at **Annexure 2**.
9. Mr. Byrne's role in the project involved:
 - a. interpreting the Work Plan Variations into closure domains;
 - b. providing advice on how mine closure would be implemented based on the Work Plan Variations;
 - c. reviewing the adopted rates;
 - d. input to the structure of various cost models;
 - e. populating the costing models; and
 - f. identifying key risk and risk parameters.
10. Dr. Bowden is a Hydrogeologist with 44 years of professional experience. Dr. Bowden was the Principal Hydrogeologist at URS Australia Pty Ltd from 1990 until 1993 and a Senior Principal from 1993 until 2015. Dr Bowden now acts a consultant to AECOM. Dr. Bowden has managed or directed a number of key projects such as the development of a mine closure probabilistic costing tool for the Century Mine, Queensland. Dr. Bowden also developed the RISQUE method, which expanded the conceptual basis of strategic risk assessment. I attach a copy of Dr. Bowden's curriculum vitae at **Annexure 3**.
11. Dr. Bowden's role in this project involved:
 - a. the development of probabilistic costing methodology to mine closure setting and generated closure cost models for each mine;
 - b. development of the financial risk methodology for mine closure setting and generated the risk cost model; and
 - c. conducting a technical peer review of model outputs and the report.

Chronology of relevant steps in the project

12. On 9 June 2015 URS submitted draft reports to DEDJTR and presented about the reports to DEDJTR on 13 June 2015.
13. On 15 June 2015 URS requested that DEDJTR obtain further information and data from the Latrobe Valley mines for the purpose of the cost assessments.
14. On 26 June 2015, DEDJTR provided the response it received from the Hazelwood mine to URS. DEDJTR did not provide to URS any responses from the Yallourn and Loy Yang mines.
15. On 6 July 2015, URS submitted three draft cost assessment reports to DEDJTR.

16. On 13 and 14 October 2015, URS provided the draft cost assessment reports to the Latrobe Valley mines by way of a presentation.
17. On 14 October 2015, URS requested DEDJTR to obtain some revised data from the Latrobe Valley mines.
18. On 20 October 2015, URS received the information provided to DEDJTR by the Yallourn mine in response to this request.
19. On 5 November 2015, URS received the information provided by the Loy Yang mine to DEDJTR. On 9 and 10 November 2015, URS received the information provided by the Hazelwood mine to DEDJTR.
20. On 13 November 2015, URS finalized the reports regarding the Hazelwood, Yallourn and Loy Yang mines. The Loy Yang report dated 13 November 2015 was based on the 1997 Work Plan. I understand that the Board has received copies of these reports.
21. On 3 December 2015, URS received a copy of the new approved Work Plan Variation for the Loy Yang mine ('WPV15'). URS then finalized a new costing model and report to reflect the terms of WPV15.
22. On 11 December 2015, URS finalized the report regarding the cost assessment for the Loy Yang mine taking into account WPV15. A copy of that final cost assessment report has been provided to DEDJTR.

Signature



Date

11 December 2015