

HAZELWOOD MINE FIRE INQUIRY

Submission cover sheet

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Submissions Hazelwood Mine Fire Inquiry
PO Box 3460
GIPPSLAND MC Vic 3841

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Title: DR	First Name: ROB	Surname: GAULTON
Organisation represented (if applicable):		
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<input type="checkbox"/> Origin and circumstances of fire <input type="checkbox"/> Measures by Hazelwood Coal Mine to prevent fire <input checked="" type="checkbox"/> Application and administration of regulatory regimes <input type="checkbox"/> Other (please state)	Response to fire by: <input type="checkbox"/> Hazelwood Coal Mine <input type="checkbox"/> Emergency Services <input type="checkbox"/> Environmental Agencies <input type="checkbox"/> Public Health Officials <input type="checkbox"/> Other Government Agencies	

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Rec'd 11/4/14.

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A. Gall C

11/4/2019

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Date

Community Consultation Submission to the Hazelwood Mine fire Enquiry.

(Robert Gaulton - Former Geology Manager, State Electricity Commission of Victoria)

Under mining carried out by the SECV, State authorities recognised that brown coal has unique combustion properties that made it difficult to control mine fires. As such, stringent fire prevention assets and remediation procedures set in place and adhered to. These included dedicated fire service teams, response units, manned observation points and the availability of abundant hydrants and spray units. The latter were installed on both the working faces and older sections of the mines.

Experience has shown that the control of surface combustion in brown coal requires not only cooling but the exclusion of oxygen. The latter is far more important in combating coal fires than forest or grass fires but difficult to achieve. Latrobe Valley brown coal is a jointed material subject to cracking (particularly in older, previously worked areas) and oxygen supply for 'hot spots' can be drawn beneath the surface from considerable distances. This functions to sustain combustion despite liberal application of water at the surface. A secondary issue with the application of large volumes of water is the risk that groundwater profiles behind the batters will elevate, increasing the risk of mine instability.

There appears to have been a tendency to rely almost exclusively on water to cool and control brown coal fires in the early stages of the incident. Past experience suggests that robust fire suppressant foam (or other suitable oxygen inhibiting material) generously applied to faces and levels is required from the onset of coal fires to inhibit spreading. This appears to have been reinforced by recent experience with 'compressed air' foam, albeit somewhat late. Hence, the availability on site of suitable rapid response equipment capable of large scale foam generation is desirable, as is the reinstatement of reticulated fire service mains and branch pipe networks in all areas of the mine where coal remains exposed.

It should also be noted that all coal surfaces left uncovered provide the potential for combustion.

In terms of public concerns, it is that some of these could have been ameliorated much earlier than was the case had information on the physical and chemical nature of brown coal combustion by-products been sourced and released.

Suggestions:

- **Mandate that suitable foam or other proven fire retardant/ oxygen barrier materials and resources be maintained on site at brown coal mines to facilitate rapid and effective fire control;**
- **Reinstall high volume reticulated water supply, complete with adequate sprays and hydrants, to all areas of brown coal mines.**
- **Cover exposed coal as far as practicable with a clay seal.**
- **Ensure an early supply of accurate information to the public regarding the impact of airborne coal combustion by products on health**