PART THREE

REGUL AT OR Y FRAMEWOR k

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PART 3 REGULATORY FRAMEWORK

Two principal regulatory mechanisms apply to Alcoa of Australia Limited (Alcoa) in relation to the

Anglesea mine:

• mining laws and legislation specifically enacted for the Anglesea mine

• occupational health and safety laws.

This Part discusses these regulatory mechanisms in so far as they relate to fire risk management at the Anglesea mine, as well as the role of the Coal Mine Emergency Taskforce.

MINING REGULATION IN VICTORIA

Coal mining activities in Victoria are regulated under the Mineral Resources (Sustainable Development) Act 1990 (Vic) (Mineral Resources Act) and the Mineral Resources (Sustainable Development) (Mineral Industries) Regulations 2013 (Vic).

The minister for energy and resources is responsible for administering the mineral resources act and related regulations. Prior to 1 January 2015, the Earth Resources Regulation Branch (ERR Branch) of the Department of State Development, Business and Innovation (DSDBI) oversaw administration of the Mineral Resources Act. From 1 January 2015, the DSDBI and the ERR Branch were incorporated into the new Department of Economic Development, Jobs, Transport and Resources (DEDJTR). The ERR Branch, now forming part of DEDJTR, remains responsible

for the regulation of mines in Victoria as the Minister’s delegate.71 In this Part, the ERR Branch (and its various predecessors) are referred to as the ‘Mining Regulator’ (noting that other government departments and agencies also have responsibility for aspects of the regulation of mines in Victoria).

SPECIFIC LEGISLATION GOVERNING THE ANGLESEA MINE

Unlike other Victorian coal mines, mining rights were granted to Alcoa for the Anglesea mine pursuant to an agreement with the State of Victoria. The agreement dated 22 November 1961 (1961

Agreement), granted Alcoa the exclusive right to ‘search, work, mine for, win, carry away and dispose of…all coal on or in the leased area’ for an initial term of 50 years.72 The 1961 Agreement was ratified by the Mines (Aluminium Agreement) Act 1961 (Vic) (Anglesea Mine Act). A copy of the 1961

Agreement is Schedule 1 to the Anglesea Mine Act.

The 1961 agreement was amended pursuant to a further agreement between alcoa and the State of Victoria dated 19 October 2011 (2011 Agreement), which extended the term of the agreement by a further 50 years.73 The Anglesea Mine Act was also subsequently amended to ratify the 2011

Agreement, which has been incorporated as Schedule 2 to the Anglesea Mine Act.

The 2011 Agreement removed most of the provisions governing the manner in which mining work needed to be carried out under the 1961 Agreement. The rehabilitation requirements of the 1961

Agreement were also omitted. They were replaced with a mine work plan submitted by Alcoa and endorsed by the Mining Regulator on 22 September 2011 (2011 Work Plan).74 The 2011 Work Plan was approved subject to a range of conditions, including that Alcoa must:

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take all reasonable measures to prevent the ignition and spread of fire75

ensure that all buildings, fixed plant and mobile equipment are fitted with firefighting equipment, such as fire extinguishers, fire blankets, knapsack spray pumps and rake-hoes76

develop and implement an appropriate fire response and readiness plan77

ensure that progressive rehabilitation of disturbed land is carried out as soon as possible78

ensure that final rehabilitation is in accordance with the work plan.79

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Part Three Regulatory Framework

OCCUPATIONAL HEALTH AND SAFETY

The Occupational Health and Safety Act 2004 (Vic) (OHS Act) and Occupational Health and Safety Regulations 2007 (Vic) (OHS Regulations) apply to the Anglesea mine in the same manner as they apply to other Victorian mines.80

The Victorian WorkCover Authority (VWA), also known as WorkSafe Victoria, is responsible for administering and enforcing the OHS Act and OHS Regulations.81

The OHS act obliges all employers to provide and maintain, so far as is reasonably practicable, a working environment that is safe and without risks to health.82 this protection extends to employees, independent contractors engaged by the employer, and the employees of independent contractors.83

Under the OHS act, employers are also under a broader duty to ensure that, so far as is reasonably

practicable, persons other than employees are not exposed to risks to their health or safety.84

In relation to the Anglesea mine, duties owed to persons other than employees would extend to

firefighters (career and volunteer) who might be required to attend any fires at the mine.

As the operator of a ‘mine’, Alcoa must comply with several requirements under the OHS Regulations. The operator of a mine must, so far as is reasonably practicable, identify all mining hazards at the mine and assess the risks to health or safety associated with all mining hazards at the mine. Mining hazards are defined to include ‘mine fires or explosions’.85

The operator of a mine must also adopt risk control measures that eliminate, so far as is reasonably practicable, risks to health or safety associated with any mining hazards at the mine, or if it is

not reasonably practicable to eliminate those risks, reduce those risks so far as is reasonably practicable.86 All risk control measures must be reviewed and revised at least every three years and after any incident involving a mining hazard.87

Unlike the Hazelwood mine, the Anglesea mine is not a ‘prescribed mine’ under Part 5.3 of the OHS Regulations. Mr Robert Kelly, Acting Director of the Hazardous Industries Group at the VWA, explained to the Board that this was because the VWA considered the Anglesea mine to present a lower level of risk than the Hazelwood mine.88

COAL MINE EMERGENCY TAS k FORCE

On 16 September 2014, the Victorian Government established the Coal Mine Emergency Taskforce

in direct response to recommendations made in the 2014 Hazelwood Mine Fire Inquiry report.89 Its role is to determine and coordinate emergency management priorities for the Latrobe Valley and Anglesea for the 2014/2015 and 2015/2016 fire seasons.90

The Coal Mine Emergency Taskforce comprises separate regional taskforces for the Latrobe Valley

(for the Hazelwood, Loy Yang and Yallourn mines) and the Surf Coast (for the Anglesea mine).91

The Surf Coast Taskforce includes representatives from Alcoa, Country Fire Authority (CFA), DEDJTR, DELWP, Emergency Management Victoria, Environment Protection Authority, Surf Coast Shire Council, VWA, and the Department of Health and Human Services.92 The Coal mine Emergency Taskforce will be in operation until December 2015.

Mr Craig Lapsley, emergency management Commissioner of Victoria and Chair of the Coal mine Emergency Taskforce, stated to the Board that the Coal Mine Emergency Taskforce is a collaborative partnership that allows for members to discuss priorities, directions and the resolution of issues, but

it does not replace the regulatory framework or the role of regulators in managing fire risk.93

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PART FOUR

FIRE RIS k

MANAGEMENT DURING OPER ATION OF THE

ANGLESEA MINE

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Part Four Fire Risk Management During Operation of the Anglesea Mine

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The management of fire risks by Alcoa of Australia Limited (Alcoa) at the Anglesea mine has been principally addressed by the Anglesea Emergency Plan, Alcoa’s Standard Work Instruction – Management of Hot Coal and Coal Fires, and the Alcoa Anglesea Country Fire Authority Pre-Incident Plan. Alcoa has also completed fire risk assessments and adopted other fire mitigation practices at the mine.

This Part discusses fire risk management as it applied when the Anglesea mine was operational. Proposed updates to fire risk management, to be applied after shutdown of the mine and power station on 31 August 2015, are discussed in Part 5 of this report.

ANGLESEA EMERGENCY PLAN

Alcoa’s Anglesea Emergency Plan comprises a number of procedures and equipment requirements relevant to preventing and managing fires in the Anglesea mine.

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The Anglesea Emergency Plan provides for all Alcoa staff working at the Anglesea mine and power station to undertake induction to familiarise themselves with the site’s facilities, and workplace safety and emergency management procedures. The Emergency Plan provides for staff to participate in evacuation drills and ongoing training relevant to their roles as emergency response team members, emergency coordinators and mine operators.94

The emergency Plan states that staff should be trained to call 000 and to contact the Victorian WorkCover Authority (VWA) and the Country Fire Authority (CFA) in appropriate circumstances.95 the Emergency Plan further states that Alcoa will maintain a working relationship with the Department of Environment, Land, Water and Planning (DELWP) so that mine staff are aware of the status and extent of all controlled burns near the mine site.96

There are protocols under the emergency Plan to facilitate access to the Anglesea mine site during emergencies. These include that Alcoa provide induction and site orientation sessions to external agencies such as Victoria Police, the CFA and Victoria State emergency Service, and that Alcoa conduct joint training exercises in firefighting and other emergencies for Alcoa staff and emergency services, so that they are prepared for working together in the event of an emergency.97

HOT WORK PERMIT

Under the Emergency Plan, Alcoa mine staff are required to obtain a permit from a manager before conducting any hot work that generates sparks—such as welding, grinding or cutting. The permit holder is required to wet down the work area, ensure fire suppression equipment is available and conduct checks after work completion. Hot work is restricted during fire danger periods.98

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The Emergency Plan requires mine staff to maintain the height and density of vegetation in the mine site, to reduce the risk of fire spreading from outside into the mine and vice versa. This includes annual slashing of vegetation beneath power lines and within 50 metres of the northern diversion channel to reduce plant matter that may fuel fire.99

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The Emergency Plan states that firefighting equipment, including fire extinguishers, fire pumps, a fire truck and a 60,000-litre water cart, be available onsite at all times, and that excavators and dozers used in the mine can be used for fighting coal fires.100 The Emergency Plan requires that water sprinklers and smoke detection systems are linked to the mine’s control room and that foam suppression units are installed in all mobile mine equipment.101

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f I re S trate GI e S

Alcoa’s strategy for responding to bushfire, as documented in the Emergency Plan, requires staff to evacuate early or take shelter in the power station until a bushfire front passes. Safety allowing, the mine’s Emergency Response Team would then patrol the site and suppress any spot fires threatening coal surfaces and other assets. The Emergency Plan notes the hazards of radiant heat and smoke.102

The Emergency Plan directs staff to follow the Standard Work Instruction – Management of Hot Coal and Coal Fires when responding to spontaneously combusting hot coal and coal fires.103

STANDARD WOR k INSTRUCTION – MANAGEMENT OF HOT

COAL AND COAL FIRES

Alcoa’s Standard Work Instruction – Management of Hot Coal and Coal Fires directs mine personnel on the management of hot coal, coal fires and machinery fires.104

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The Standard Work Instruction specifies that Alcoa staff should perform hot coal checks in the morning, when steam being emitted from spontaneously combusting coal is more obvious in the cool air.105 Mine staff are also required to check for odour emanating from the coal, as this too is indicative of spontaneous combustion.106 The Standard Work Instruction identifies coal fines (coal dust) heaped beside the haul road, coal stockpiles, loose coal at the base of coal batters and cracked surfaces

on the coal batters, as key areas to check for spontaneous combustion.107

To minimise the risk of coal combusting, the Standard Work Instruction states that Alcoa staff should dig out cracked surfaces of coal batters, collect and dispose of coal fines and loose coal in the mine, and cover mined-out coal batters with overburden at the earliest possible opportunity.108 Where hot coal is identified, the Standard Work Instruction requires staff to separate it from other coal, and to use available methods to minimise the fire risk, such as spreading and rolling the hot coal on a track, cooling it with water, or burying it with overburden material.109

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The Standard Work Instruction states that when coal fires occur, mine staff must approach the fire  
from an up-wind direction with thorough consideration given to their distance from the fire, selecting appropriate firefighting equipment, testing for toxic gases in the air and the use of respirators.110   
Standard procedure is to extinguish the fire either by wetting the coal or placing it into a body of water.111

COUNTRY FIRE AUTHORITY PRE-INCIDENT PLAN

Mr Robert Barry, Assistant Chief Officer of CFA Barwon South West Region, informed the Board of Inquiry that the Alcoa Anglesea CFA Pre-incident Plan outlines the CFA’s response to a fire at both the Anglesea coal mine and the power station. The Pre-incident Plan contains information relevant to wildfires, open cut coal fires, structural fires, hazardous material events and rescue events.112 the Pre-Incident Plan forms part of a broader suite of CFA planning documentation for the town of Anglesea and the surrounding region.113

Mr Barry informed the Board that CFA staff called to attend fire events at the Anglesea mine site could obtain details of the site from the Pre-incident Plan, including maps of the mine, floor plans of the power station and general facilities, and the location of dangerous goods. Other information in the Pre-incident Plan relates to site access, staging and evacuation locations, the location of critical infrastructure and water supplies, and protective measures to be taken to prevent exposure to carbon monoxide.114

OTHER ALCOA POLICIES AND PRACTICES

Mr Christopher Rolland, Mine Manager at Alcoa, informed the Board of Inquiry that Alcoa practised additional fire risk management strategies during the mine’s operation. These included a non-smoking policy in mine areas, proactive ember patrols by emergency response team members when bushfires occurred near the mine site, equipment function checks prior to commencing works, and regular equipment maintenance and cleaning.115

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