Fact Sheet: Anglesea Power Station and Mine Rehabilitation Overview

Introduction
After 46 years of operation Alcoa’s Anglesea Power Station and Coal Mine was permanently shut down on 31 August 2015. The planning for the rehabilitation and closure of the mine site, and the decommissioning and remediation of the power station, is underway.

A local project team, backed by the company’s global project and asset management group with expertise in environmental remediation, facility decommissioning and project management, is working within the regulatory frameworks to restore the power station and mine site to a land use that is safe and stable for future generations.

This is a complex process over a period of three to five years, and potentially up to ten years for the mine. Final decommissioning, environmental and rehabilitation requirements to meet long term land use objectives, are closely inter-related.

Alcoa has estimated $US40 - $US45 million for asset retirement and environmental remediation.

Regulatory Framework for the Mine
The Minerals Resources (Sustainable Development) Act 1990 provides the framework for rehabilitation and closure of the mine site as it applies to the coal mine operations under the Mines (Aluminium Agreement) Act 1961 (MAAA). The Anglesea Mine Work Plan (Work Plan), approved September 2011, sets broad concepts for the mine rehabilitation and defines a process for the site closure inclusive of community engagement.

Alcoa’s obligation is to comply with the Work Plan requirements, including the rehabilitation and closure process to the satisfaction of the regulator, Earth Resources Regulation of the State Government’s Department of Economic Development, Jobs, Transport and Resources (DEDJTR).

Regulatory Framework for the Power Station
The Power Station decommissioning will be managed by Alcoa consistent with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) (NEPM). The Victorian EPA sets the regulatory standards for the activities undertaken by Alcoa through the statutory Clean Up Notice issued to Alcoa in October 2015.

The Area
Following the early surrender of more than 6,500 hectares of lease land in 2016, Alcoa currently leases approximately 787 hectares of unreserved Crown Land, under provisions of the Mines (Aluminium Agreement) Act 1961. Additionally, Alcoa owns approximately 143 hectares of freehold land, some of which is external to the lease area outlined above.

The lease document set the historical area available for mining at 545 hectares (Specified Mining Area). Alcoa has mined approximately 325 hectares of the Specified Mining Area.

![Map of Anglesea Area][1]

*This map includes approximate boundaries for informational purposes.*

Fact Sheet: Mine Rehabilitation and Closure Plan

Introduction
The 2011 approved Anglesea Mine Work Plan (Work Plan) was developed to outline the strategy for the continuing operation of the Anglesea Coal Mine by Alcoa of Australia to 2061 within an area known as the Specified Mining Area. The Work Plan is a legislative requirement of the Mineral Resources (Sustainable Development) Act 1990 as it applies to the Anglesea Coal Mine operations under the Mines (Aluminium Agreement) Act 1961.

The Work Plan contains broad concepts and a defined process for the mine rehabilitation and closure inclusive of community engagement.

Given the permanent shut down of the Anglesea Power Station and Mining operation on August 31 2015, 45 years earlier than anticipated, Alcoa must refine these concepts and revise the Mine Rehabilitation and Closure Plan.

It is Alcoa’s obligation to comply with the Work Plan requirements, including the rehabilitation and closure process. This obligation is enforced by Earth Resources Regulation of the State Government’s Department of Economic Development, Jobs, Transport and Resources (DEDJTR).

Mine Rehabilitation and Closure Plan Concepts
The Work Plan refers to the conceptual closure of the mine in 2061. The key principles and concepts remain relevant and are a sound starting point for development of revised rehabilitation and closure works, for example:

1. To ensure the potential for the mine site area to be reused for a variety of commercial, conservation, educational and recreation activities.

2. High batters to be filled and redeveloped into rehabilitated slopes that feed down to flooded void and valley systems.

3. Salt Creek to be diverted into a lake system and then decanted off, through a valley system, to join into Marshy Creek before becoming the Anglesea River.

4. Stakeholder engagement is central to the detail.

5. Proposals considered through the stakeholder engagement process must be compatible with the designated land use priorities for the mine site.

Rehabilitation Vision and Objectives
Any vision that is to be developed for the mine site must be based on a long term safe and stable outcome for future generations.

The Work Plan outlines a rehabilitation objective to establish a diverse, self-sustaining, heathy woodland ecosystem that maintains or enhances the surrounding land use such as conservation, recreation and other natural values.

The objective recognises that an alternative strategy may be required in particular circumstances that developed during the mine’s life where, for example, there is an absence of topsoil for return for the establishment of traditional re-vegetation.

The final Mine Rehabilitation and Closure Plan
The final Rehabilitation and Mine Closure Plan is an important planning tool to be used by Alcoa, state and local government regulators, and the community to monitor progress with rehabilitation, with agreed timelines and measurable outcomes.

The plan’s detail is based on various technical assessments, and community, stakeholder and government regulatory input, to develop a final mine closure concept and agreed rehabilitation closure criteria to ensure a safe and stable outcome for future generations. It outlines how the mine facilities will be decommissioned and the disturbed areas (mined areas, roads and mine infrastructure) rehabilitated and returned to an agreed state.

The final Mine Rehabilitation and Closure Plan will be submitted to Earth Resources Regulation of the State Government’s Department of Economic Development, Jobs, Transport and Resources (DEDJTR) for approval. Following this the revised rehabilitation and closure works can begin.
Fact Sheet: Mine Technical Review and Analysis Process

Introduction
Consistent with the 2011 approved Anglesea Mine Work Plan (Work Plan), Alcoa initiated a variety of technical review and assessment activities. These activities have analysed and validated the technical feasibility of the various concepts used to develop the detail set out in the final Mine Rehabilitation and Closure Plan.

Comprehensive Risk Assessment
A comprehensive assessment identified a full range of risks and potential outcomes associated with the mine’s rehabilitation and closure to ensure any environment, health and safety standards are met. Importantly long term assessment of fire risk, as identified in the Hazelwood Mine Fire Inquiry, was a key consideration in the final detail for mine rehabilitation and closure.

Geotechnical Assessment
Ensuring there is a long term safe and stable outcome for future generations is critical. The geotechnical study has:
- provided a comprehensive analysis of all geotechnical and slope stability issues relating to the final Mine Rehabilitation and Closure Plan by highlighting all related risks and providing sound technical and engineering support for any recommendations;
- provided recommendations for strategies to manage any identified risks for the various geotechnical areas;
- provided a full evaluation of both surface water and wave erosion aspects associated with the final design slopes;
- informed the development of a fully balanced Mine Rehabilitation & Closure Plan detailing all expected earthworks to ensure long term stability; and
- informed the development of ‘Completion Criteria’ for monitoring the above proposed outcomes that indicates that long term stability has been reached.

Hydrological and Hydrogeological Assessments
The hydrological studies have been completed to inform the establishment of a long term safe and stable mine water body system. The studies have provided:
- a baseline model of the current aquifer and interactions with other aquifers, surface water and waterways, inclusive of chemistry/water quality;
- hydrogeological evaluation and groundwater modelling to determine mine void fill times and system time to reach equilibrium under various scenarios, including under climate change, and over various time periods; geochemical modelling and assessment of key water quality parameters, potential risks during filling of the mine void, and showing long term equilibrium quality parameters and risks;
- recommendations of preferred options for providing connectivity of the proposed mine void water body from Salt Creek to the Anglesea River;
- potential strategies and options that may assist with water quality management (where appropriate) during filling the void inclusive of advantages/disadvantages and risks; and
- informed the development ‘Completion Criteria’ for monitoring the above proposed outcomes that indicates that long term objectives have been reached.

Revegetation Assessment
The vegetation study has been completed to ensure an integrated approach to revegetating appropriate sections of the disturbed mining area. The study has provided:
- a comprehensive and integrated revegetation strategy that encapsulates all the disturbed areas against all appropriate aspects;
- a revegetation strategy for the final mine rehabilitated landform that does not significantly increase the modelled fire risk for the Anglesea township and surrounding area;
- support for surface and wave erosion control strategies that ensure long term safe and stable slopes through revegetation;
- a potential management and monitoring program for the various elements described in the revegetation strategy;
- recommended revegetation options, informed by both community aspirations, and by community expertise and experience, for the various areas; and
- informed the development of ‘Completion Criteria’ for monitoring the above proposed outcomes that indicates that long term objectives have been reached.

A Cultural Heritage Management Plan for the current undisturbed natural vegetation areas that may be disturbed as part of the final Mine Rehabilitation & Closure Plan implementation is also underway and will be submitted for approval to the registered Aboriginal Party.

Closure Criteria
All rehabilitated land will be monitored to ensure rehabilitation and closure details are met. The closure objectives and completion criteria will ensure that agreed standards for rehabilitation, safety and stability have been achieved,
Fact Sheet: Power Station Decommissioning and Remediation

Introduction
Consistent with the National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) (NEPM), Alcoa has commissioned a series of preliminary site investigations to identify the potential nature and extent of contamination at the site resulting from historical land use and activities.

Based on the outcomes of preliminary investigations, detailed investigations and site specific risk assessments may be undertaken to enable future site management strategies to be devised.

As with the associated mine site, Alcoa’s strong commitment to its values of health, safety and protection of the environment are key priorities for this process.

Statutory Clean Up Notice
On 13 October 2015 the Environment Protection Authority (EPA) Victoria issued Alcoa with a statutory Clean Up Notice requiring the company to manage environmental contamination at the Anglesea power station site in preparation for future use.

The Clean Up Notice follows due process for an industrial site and is consistent with the NEPM approach. To date there has been no unexpected matters identified by Alcoa or EPA Victoria.

The Notice required the appointment of an independent environmental auditor (now appointed) to assess the processes as it is undertaken and provide independent reports to EPA Victoria, and requires the completion of environmental site assessments by 30 September 2017. This date will be reviewed with the EPA as meeting this requirement is also dependent on the completion of the Power Station decommissioning activities.

Alcoa must also provide a written update to the EPA every quarter and publishes each update on its website.

Decommissioning of Power Station facilities
The power station’s physical decommissioning commenced early 2017 and will take approximately 18 months to complete.

The decommissioning consists of the safe removal, abatement and disposal of asbestos containing materials and synthetic mineral fibre insulation into the onsite landfill; and the decommissioning, removal and recycling of the power station structure and all associated equipment.

Asbestos Landfill
Under license with the EPA, Alcoa has operated and maintained an onsite asbestos landfill on the power station site for the safe disposal of asbestos used in the original construction of the power station. The operation of this landfill is regularly audited. The landfill is being used during power station decommissioning activities and remains under license by the EPA during this period. The landfill will be regulated once closed through a separate statutory notice process with the EPA.
Fact Sheet: Stakeholder Consultation & Engagement

Introduction

Consultation and engagement with stakeholders is a priority in the development and approval process for the mine’s rehabilitation and closure and the decommissioning and remediation of the power station site. Engagement will continue to be a priority during the implementation phase once Alcoa has received regulatory approval.

Alcoa has a long history of stakeholder engagement, including a well-established Community Consultation Network that is open to all community members and key stakeholders. Alcoa is maintaining these regular meetings during rehabilitation and closure.

Stakeholders

Identified stakeholders include:

- Indigenous community
- Interest groups and community organisations
- Government authorities and agencies
- Local and regional services and businesses
- Residents and local landowners
- State and local government representatives
- Wider community and the general public

Engagement Process

Alcoa’s aim is to ensure its rehabilitation and closure of the mine site and power station is developed in conjunction with community and government stakeholders.

Alcoa is conducting broad engagement activities about the future of the Alcoa site, inclusive of the continuation of the Alcoa Community Consultation Network, along with other public activities and an online engagement platform.

The Anglesea Futures Community Conversations Series, coordinated by Department of Environment Land Water and Planning (DELWP), Parks Victoria and Surf Coast Shire Council, will provide further input for consideration.

Alcoa Community Consultation Network (CCN) meetings

Alcoa CCN meetings are held bi-monthly in Anglesea and are open to all community members and key stakeholders.

Since 2002 Alcoa CCN meetings have been a regular forum to keep the community informed of activities at the Anglesea Power Station and Mine and to receive input from the community. Updates are also provided from representatives from the Department of Economic Development, Jobs, Transport and Resources (DEDJTR), Department of Environment, Land, Water and Planning (DELWP), EPA Victoria, and Surf Coast Shire.

A comprehensive summary of previous CCN meetings is available on the Alcoa website.

Opportunities to Engage

Alcoa continues to seek the community’s input to help inform the development of the Mine Rehabilitation and Closure Plan, and a Draft Concept Master Plan for the power station freehold land.

In addition to the long running Alcoa Community Consultation Network, Alcoa engages with the community and key stakeholders via open houses, drop in sessions, listening posts, community workshops and online engagement.

Alcoa conducted broad community engagement in 2016 to seek the community’s feedback on the future of the Alcoa site. Five guiding principles were developed and are reflective of the community’s aspirations for the site:

- Provide a safe and stable landform for future uses
- Value and complement the natural environment
- Support a diverse range of future uses and outcomes
- Honour the various cultural and heritage values of the area
- Complement the future of the Anglesea Region

These guiding principles have helped inform the development of the Mine Rehabilitation and Closure Plan, and will help inform the Draft Concept Master Plan for the power station freehold land.

Upcoming engagement opportunities

- Between 11 and 25 June 2017 Alcoa is seeking the community’s feedback on the Mine Rehabilitation and Closure Plan prior to its submission to the Victorian Government for approval. A range of activities have been scheduled including three community ‘drop in’ sessions [Sunday 11 June 10am to 1pm; Wednesday 14 June 4pm to 7pm and Monday 19 June 4pm to 7pm at the Anglesea Senior Citizens Club] and an online engagement forum [engage-anglesea.alcoa.com.au].
- Alcoa CCN meetings are scheduled for 14 August, 9 October and 11 December at the Anglesea Senior Citizens Club.
- A concept master plan for Alcoa’s power station freehold land is expected to be released for community consultation in late 2017.

For more details:

EMAIL: angleseaps@alcoa.com.au
MAIL: Alcoa of Australia, Camp Road, Anglesea, VIC 3230