Mining and Energy Division

Review of Environmental Assessment

Drayton Mine East Pit Tailings Emplacement and Explosive Storage Facility DA 06-0202 MOD 2

Submission

Construction Forestry Mining and Energy Union

(Mining and Energy Division)

Northern District Branch

September 2011

On 12 July 2011 Anglo Coal (Drayton Management) Pty Ltd applied to the Minister, Department of Planning & Infrastructure seeking approval for the emplacement of raw tailings in the Drayton East Pit void and the const4ruction and operation of an explosives storage facility at Drayton Mine. This Project is sought under Section 75W of the EP&A Act, 1979.

The Director General made the Environmental Assessment publicly available for comment at the DoP & I Information Centre Sydney and Muswellbrook Shire Council, with no end date for submissions detailed.

The Union is pleased to take the opportunity to comment on the Drayton Mine East Pit Tailings Emplacement and Explosives Storage Facility Project and related activities Environmental Assessment.

The Mining and Energy Division is a Division of the CFMEU under the Federal Workplace Relations Act 1996, with over 120,000 members, one of the largest in Australia. The Division covers several industries including the coal industry, coal ports, metalliferous mining industries, electrical power generation, oil and gas and the Nation's small coking industry.

The Northern District Branch of the CFMEU Mining and Energy Division, being the branch that on behalf of the organisation which is making the submission is the principal Union representing coal miners in the Northern District coalfields of New South Wales. The Drayton Mine facility is located approximately 13 kilometres south of Muswellbrook is wholly within the State's Northern District coalfields.

The Union is familiar with the Drayton Minesite and has engaged the services of an Environmental Consultant with extensive experience in local government and environmental assessments on coal mining related projects.

After reviewing all the material and taking advice, the Union supports the establishment of the East Pit Tailings Emplacement and Explosives Storage Facility as proposed.

Project Overview

East Pit Tailings Emplacement

The Coal Treatment Unit upgrade will result in the production of a greater amount of wet tailings in contrast to the dry tailings which are currently co-disposed in pit. The modification is required to facilitate disposal of wet tailings via a pipeline into the East Pit void. The pipeline system will include the following components:

- Installation of a tailings slurry pump within the existing Coal Treatment Unit (CTU);

- Construction of a pipeline from the CTU to the Eastern Void;
- Installation of a mid-pipeline diesel or electric powered booster pumping station (if required); and
- Disposal of wet tailings to fill approximately 8 to 10% of the Eastern Void over the remaining mine life.

Approximately 3 million m^3 of dewatered tailings is proposed to be emplaced in the East Pit void to 2017. Tailings emplacement will be up to RL 104. Subsequently, 1500 ML of water will be stored and increase the level to RL 114 behind an in situ pillar to enable3 mining to the north. Following the tailings emplacement, Macquarie Generation would then completer filling the void to the currently approved design level with fly ash material or alternatively the void will be capped to DTIRIS-MR standards. No changes to Drayton's currently approved mining operations, extraction limits or transport arrangements are sought for the Modification.

Explosives Storage Facility

The proposed explosives facility will be approximately 120 m x 60 m and will be located to the south of Drayton's open cut mining operations. The area will be fenced around its perimeter with a 2.1 m high man-proof fence, including barbed wire extension with two security gates at either end.

The location for the facility was chosen for a number of reasons including:

- Close proximity to services such as power and all-weather roads;
- The area satisfies regulatory requirements for distances from major infrastructure, neighbouring residences, public roads and the explosives magazine;
- The area is located on Drayton-owned land to the south of its mining operations and is zoned appropriately for the proposed works; and
- The location will enable the facility to cater for Drayton's needs in the future as mining progresses.

The facility will be constructed in stages to accommodate the following:

- Portable office building and workshop with amenities;
- Three Ammonium Nitrate storage bins (Class 5.1 Oxidising Agent) with a combined capacity of 165t;
- Two Ammonium Nitrate Emulsion storage bins (Class 5.1 Oxidising Agent) with a combined capacity of 160t;
- 68 000 litre self bund diesel tank;
- 60 000 litre self bund canola tank;
- 20 000 litre potable water tank with pressure pump;

- A waste water system including a septic tank and pump out holding tank;
- Storage containers for Gasser solution on bunded pallets;
- Storage containers for Companion solution on bunded pallets;
- Clean water and dirty water systems with sediment control, to direct all runoff into the mine's water management system; and
- General waste and recycling management facilities.

The main access roads, park-up areas and other trafficable areas within the facility will be covered with stabilised truck pavements and will be capable for all weather use.

Construction

Due to the remote location of the facility, construction is proposed to occur 24 hours per day. Construction will occur in two phases: civil works and mechanical works. The civil works for the Proposal are expected to take approximately six weeks. Works to be carried out within this phase includes the main earthworks such as construction of roads, park-up areas and drainage, formation of the facilities pad, all concreting works, and the connection of clean water and dirty water drainage systems. The civil works will involve a range of earthmoving and transport equipment including dozer, grader, vibrating pad foot roller, vibrating smooth drum roller, hydraulic tracked excavator, backhoe and semi tippers.

The mechanical works and fit-out are expected to take approximately six weeks. These works will be carried out using 20t and 50t mobile hydraulic cranes along with franna type crane, and will involve the assembly of all required components.

Operation

All bulk materials will be transported to the explosives storage facility in semi-trailers by a licensed contractor. These semi-trailers will have appropriate signage displayed in accordance with the Australian Code for the Transport of Dangerous Goods by Road and Rail and relevant NSW legislation. There will be no change to public road traffic volumes, as these vehicles currently transport explosives materials for Drayton to the Mt Arthur Coal storage facility.

The explosives storage facility will be operated and managed by a licensed explosives supply contractor.

The Ammonium Nitrate Emulsion and canola/diesel will be pumped directly from the delivery vehicles, while the Ammonium Nitrate will be dumped into a hopper and conveyed into the storage containers.

Vehicles called Mobile Manufacturing Units (MMU) will continue to be used to transport materials required for blasting. These MMU's have separate compartments for canola/diesel, Ammonium Nitrate Emulsion and Ammonium Nitrate which enables the separation of these ingredients until they are pumped into each blast hole and stemmed for a blast.

The canola/diesel will be pumped into its compartment in the MMU from a standard petrol bowser. Each MMU will travel to the designated blast area, pumping each blast hole with required amounts of product in readiness for blasting.

Stakeholder Engagement

During the preparation of the EA, Drayton consulted with DoPI with the aim of identifying specific issues and develop appropriate mitigation strategies to manage impacts associated with various components of the Modification.

Extensive consultation occurred with Macquarie Generation in regard to the emplacement of tailings in the East Pit void on Macquarie Generation owned land. The consultation resulted in a legal Deed of Agreement being reached between both parties in regard to the Modification.

Notification of the Modification will be provided to Drayton's near neighbours via the distribution of a brief letter outlining the Modification and providing relevant contact details to discuss the Modification further. Notification of the Modification will also be provided to Drayton's CCC.

Air Quality

An air quality impact review was undertaken by consultants PAE Holmes for the Modification.

The review considered the Modification and its potential impacts on air quality in the vicinity of Drayton. Due to the wet nature of the tailings, and the proposed disposal via pipeline, no deleterious impacts on air quality are anticipated.

Noise

A noise impact review was undertaken for the Modification by consultants Bridges Acoustics. This review considered potential noise sources and worst case sound power levels associated with the emplacement of tailings in the East Pit void, which included:

- A tailings pump within the CTU – a centrifugal unit with a direct coupled electric motor producing a sound power level of 90 dBA; and

- A pipeline booster pump – a diesel driven centrifugal unit producing a sound power level of 104 dBA, or an electric unit producing up to a sound power level of 90 dBA, if required.

The noise impacts associated with the emplacement of tailings in the East Pit were void as details indicate that with appropriate location of any required booster pump, no increases in noise levels at any noise sensitive receiver will occur.

The review also determined that the noise generated during the construction and operation of the explosives storage facility would be significantly less than active open cut mining operations at Drayton. No specific mitigation or control measures have been recommended.

Groundwater

A groundwater impact study was completed by consultants Australian Groundwater & Environmental Consultants Pty Ltd (AGE).

As part of the Drayton EA, AGE modelled two scenarios for the East Pit:

- Scenario 1 which described the recovery of the water table under the assumption that all pits would remain as open voids and would develop final void lakes; and
- Scenario 2 which assessed the long term impact of ash disposal from a Macquarie Generation owned Power Station to the East Void.

Scenario 2 is of particular relevance to the Modification and as such a comparison of the impacts of this scenario and the Modification was conducted. It was assessed that leachate generated from tailings disposal in the East Pit void will have the same flow path and travel time as that predicted for the fly ash leachate. The key difference between the disposal of wet tailings and the approved fly ash slurry will be associated with the quality of the leachate.

The Modification will not result in any additional impacts to the groundwater systems surrounding Drayton greater than those currently approved under PA 06-0202.

The existing groundwater monitoring network in place at Drayton would not be impacted by the Modification. Groundwater monitoring will continue to be undertaken at Drayton in a manner consistent with the management commitments as required by the Drayton Water Management Plan.

Surface Water

A surface water study was carried out by consultants Water Solutions Pty Ltd to determine the impacts of the Modification on the water management system.

An Operational Simulation OPSIM model was used as a baseline for the Year 10 water impact assessment. Investigation outcomes concluded that the proposed tailings disposal modification works have the following impacts on the Drayton Mine water management system:

- A significant reduction in the risk of pit inundation in North and South Pits. This is primarily due to the increases losses in the tailing decant circuit and reduced groundwater inflow to East Void for the proposed case;
- Little impact on site spill frequencies, with the exception of a reduced risk of discharge at the Rail Loop Dam;
- An increase in additional water requirements at Drayton Mine to meet site demand operational reliability;
    - For a nominal 10% EAP at least 850ML/yr of additional water is required for the proposed case
    - This compares with a zero makeup requirement for the existing case.

This is primarily associated with the increased losses in the tailings decant circuit for the proposed configuration.

This water will be sourced from Drayton West Pit void, adjacent mines or power stations.

Spontaneous Combustion

The deposition of tailings in the East Pit will be carried out in a manner consistent with current approvals and methods. These techniques for the management of spontaneous combustion will continue to be used for the Modification, and have been developed in consultation with MSC< DTIRIS-MR and OEH.

Visual

The proposed explosives storage facility is located to the south of active mining operations and will not be visible to privately owned near neighbours or residences.

The Modification represents utilisation of an existing void and construction of a pipeline within the approved mining disturbance area. The Modification to tailing emplacement will be undertaken in a manner consistent with the approved mining operations. The currently approved final land form will not be altered. The Modification will not result in an increase in the height of the landform approved under PA 06-0202. No visual impacts are anticipated as a result of the Modification.

Ecology

No additional surface disturbance is required as a result of the Modification. Ecological offsets at Drayton are established in accordance with those described in the Drayton EA and Drayton Modification EA and approved under PA 06-0202. The Modification will not result in any impact on ecology in the locality.

Aboriginal Archaeology & Cultural Heritage

The Aboriginal archaeological impact assessments for the Drayton EA identified a number of sites within and surround the EA Boundary. The review established that no known Aboriginal sites are located in close proximity to the East Pit.

As no disturbance will result from the Modification, no impact is anticipated with regard to Aboriginal Archaeology or cultural heritage.

A review of the non-Aboriginal heritage sites previously identified at Drayton is located in the vicinity of the Modification. As no surface disturbance is proposed, no additional management or mitigation measures will be required.

Traffic & Transport

The Modification will reduce travel distances for the explosives supply vehicles, as the material will be supplied directly to Drayton Mine, rather than via Mt Arthur Coal. Therefore, no impacts to the transport networks surrounding the EA Boundary will result from the Modification.

Socio-Economics & Justification

The Modification will not result in any increase in coal extraction, life of mine, or the level of employees in addition to those approved under PA 06-0202. It will however facilitate an improved product coal quality.

This Modification is required due to a recent upgrade to the Coal Treatment Unit which now creates a higher quality coal product hence resulting in a greater quantity of tailings being produced.

The Modification also seeks approval for the construction and operation of an explosives storage facility at Drayton Mine. The facility will ensure that Drayton has an ongoing supply of materials required for blasting, as the currently utilised Mt Arthur Coal facility nears capacity.

Significant planning has been undertaken to locate and design the explosives storage facility so as to minimise impacts on the neighbouring community and the surrounding natural environment.

In Summation

The proposed modification for the emplacement of waste tailings in the East Pit void, and construction and operation of an explosive storage facility at Drayton Mine is considered to build on the attributes of the currently approved PA06-0202.

Based on comparative analysis of the key elements detailed in the Drayton Statement of Environmental Effects, it is considered this Modification will have negligible additional impacts to current approved operations.

The Union therefore on balance supports the proponent's application for Modification DA 06-0202 MOD 2.

Grahame Kelly
DISTRICT SECRETARY