



**Mining and Energy** Division

# Review of Environmental Assessment

## Hunter Valley Operations Complex

### HVO North – Mod 4 Tailings Emplacement

DA 450-10-2003

## Submission

Construction Forestry Mining and Energy

Union (Mining and Energy Division)

Northern District Branch

July 2013

On 16 April 2013 Coal & Allied Pty Ltd applied to the Minister, Department of Planning seeking approval for the construction of the fine reject emplacement to afford HVO North an additional six years of tailings capacity within a tailings constrained environment. The modification also proposed the utilisation of Cumnock Void 3 for tailings disposal in accordance with a joint use agreement with Xstrata's Ravensworth Operation. This Project is sought under Section 75W of the EP&A Act, 1979.

The Director General made the Environmental Assessment publicly available on the 21 June 2013 at the DP & I Information Centre Sydney, Singleton Shire Council and Nature Conservation Council.

The Union is pleased to take the opportunity to comment on the Hunter Valley Operations North Modification 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 Hunter Valley Operations facility is located approximately 24 kilometres north-west of Singleton and is wholly within the State's Northern District coalfields.

The Union is familiar with the Hunter Valley Operations facility site 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 this application for the construction of additional fine tailings emplacement at Hunter Valley Operations North as proposed.

## **Project Overview**

The proposed fine reject emplacement will be constructed in the northern section of the Carrington Pit. It will occupy an area of approximately 161 ha, including a 13 ha construction disturbance buffer, and will be on land that has been mined and is cleared of remnant vegetation. Based on the conceptual design, the facility would have the capacity of approximately 14.4 million cubic metres.

Fine reject will be transported to the emplacement via an overland pipeline direct from the HVO North CHPPs. A separate return water pipeline will also be constructed.

The life of the fine reject emplacement, in conjunction with the use of Cumnock Void 3, is anticipated to be six years. After this time, the emplacement will be decommissioned and the affected land rehabilitated in accordance with the rehabilitation planning for the Carrington Pit.

## **Stakeholder Engagement**

Coal & Allied has prepared and is implementing a stakeholder engagement strategy for the proposed modification. The strategy involves:

- Informing stakeholders about the proposed modification through the CCC and quarterly newsletter; and
- The continued option for stakeholders to contact Coal & Allied about the proposed modification via the shopfronts, free call information line and the website.

The level of stakeholder engagement detailed in the strategy is considered appropriate, given the relatively minor nature of the proposed modification.

Consultation was undertaken with DP & I and Division of Resources and Energy. The outcomes of consultation with DRE are reflected in the preferred approach to the management of fine reject emplacement.

## **Groundwater**

The operation of the fine reject emplacement will lead to seepage. The 2D seepage model predicts a worst case seepage rate in the order of 800 to 900 m<sup>3</sup>/day over the life of the emplacement. The 3D model projects that this seepage will lead to a localised mounding of the groundwater in the geological layers below the emplacement. However, the seepage is projected

to raise the water level by no more than a metre in any geological layer at a distance of 500 to 600 m from the emplacement's footprint.

Due to the predicted highly localised changes in groundwater levels, in the form of groundwater mounding, it is considered highly unlikely that the emplacement will affect the Carrington Billabong, the nearest bore owners, or the Hunter River, where net change in leakage to the river as a result of the proposed emplacement is predicted to be negligible, at 3L/day.

After decommissioning, recharge to groundwater within the fine reject footprint is highly likely to reduce to rates approaching those occurring pre-mining. Accordingly, long term seepage is unlikely to influence either the final void water level or the approximate time taken to stabilise, for the approved Carrington operations. The final void water quality will be more sulphate dominant as a result of the fine reject seepage.

Modelling indicates that no additional water access licensing as a result of the emplacement should be required under the Water Sharing Plan for the Hunter Unregulated and Alluvial Water Sources 2009 or the Water Sharing Plan for the Hunter Regulated Water Source 2003 as sufficient licences are already in place.

The groundwater monitoring infrastructure installed as part of the assessment together with existing bores and piezometers will be suitable for monitoring groundwater impacts from the emplacement.

## **Surface Water**

The potential changes to surface water and water management during the life of the proposed modification comprise of:

- Surface water runoff from the fine reject emplacement;
- Surface water runoff volume to receiving waters;
- Runoff water quality;
- HRSTS discharges and Hunter River water quality; and
- HVO's water management system.

It is noted that the use of Cumnock Void 3 for fine reject disposal already has planning approval, potential impacts are only related to impacts on the site water balance associated with the fine

reject disposal operations which are primarily associated with the return of decant water from Cumnock Void 3 back to the HVO water management system. The decant return arrangement is currently subject to agreement between Coal & Allied and Cumnock Joint Venture. For the purposes of assessment it was assumed that the volume of decant water from Cumnock Void 3 to HVO would be equal to the moisture in the emplaced HVO reject material minus losses.

An assessment of the potential impacts of the proposed modification on the HVO North mine water management system has been undertaken. The findings of this assessment indicated:

- The proposed modification does not have any significant impact on the expected pit inundation at HVO North;
- The proposed modification does not have any significant impact on accumulation or reduction in overall site inventory volumes;
- The proposed modification has no impact on site raw water requirements; and
- There is an increase in the risk of discharge from Dam 15N, that has the ability to discharge via a spillway into receiving waters (Hunter River via Farrells Creek). The maximum modelled discharge is only around 70 ML, at an estimated EC of 700-800  $\mu\text{S}/\text{cm}$ . Given that the discharge should have no impact on Farrells Creek or Hunter River water quality.

The water balance modelling indicates that the proposed modification would have little impact on the existing HVO North water management system.

There are no substantial changes proposed to the HVO North water management system to accommodate the proposed modification.

Additional surface water will be generated by the collection of runoff into the proposed fine reject emplacement and Cumnock Void 3; however, the management of water in the project area would essentially be the same as for the existing operations.

The establishment of the fine reject emplacement will temporarily remove some of the catchment of the Unnamed Tributary. The reduction in the Hunter River flows due to this loss of catchment will be small in comparison with the overall flows in the Hunter River. When the fine reject emplacement is rehabilitated at the end of its life, the lost catchment area will be restored.

Land disturbance associated with the fine reject emplacement has the potential to adversely affect the quality of surface runoff through increased sediment loads. However, measures will be implemented to ensure there are no measurable adverse impacts on riparian and ecological values of watercourses on the site and downstream of the proposed modification.

Flood modelling indicates that the proposed fine reject emplacement will have no impact on flood levels or velocities in the Hunter River.

## **Ecology**

The fine reject pipelines will be located and constructed in accordance with the design principles and are not expected to have any measurable ecological impacts. A site survey of the preferred alignment must be undertaken as part of the Ground Disturbance Permit. This process will ensure that the design principles are adhered to at all times.

The project area predominantly comprises a modified landscape, with plantings and pasture that do not conform to any Biometric vegetation type or threatened ecological community. The vegetated areas nearby are habitat for small woodland birds, including the threatened speckled warbler.

The proposed modification will not significantly impact threatened or native species in the local area, given the availability of suitable habitat nearby and the current condition of the project area. The EPBC Act self-assessment indicates that a referral to the Minister for Environment Protection, Heritage and the Arts is not considered necessary for the proposed modification.

## **Aboriginal Heritage**

The entirety of the proposed emplacement area has been the subject of Aboriginal cultural heritage investigations.

It is anticipated that the fine reject pipelines will have no impact on Aboriginal cultural heritage as they will be constructed overland and restricted to areas that:

- Have been previously disturbed by mining and related activities; and
- Are adjacent to existing infrastructure such as haul roads and pipelines.

Exact alignments will be determined during the detailed design process and guided by the principle of causing zero harm to Aboriginal cultural heritage.

It is considered that the proposed modification will have no impact on Aboriginal cultural heritage sites. The proposed emplacement area is completely disturbed and all previously recorded sites have been managed under the authority of Valid Consent to Destroy permits, leaving no extant Aboriginal cultural heritage objects or places requiring management within the area.

There will be no harm to Aboriginal cultural heritage sites from pipeline construction as pipeline routes will be selected to avoid such harm.

## **Noise**

The operations phase of the fine reject emplacement will not introduce any acoustically significant plant and equipment and there will be no increase in overall noise levels from its operation. The installation of the above-ground fine reject pipelines will not generate any significant noise in the context of the surrounding mine noise environment and there will be no operational noise. Accordingly the assessment focussed on the construction of the fine reject emplacement.

The construction of the fine reject emplacement will be similar in many respects to other mining activities at HVO where dozer, trucks and other plant are used to move and place rock and earth. However, it will be short term and temporary in nature. Some of the construction activities will take place at night.

The construction of the fine reject emplacement represents the only potentially significant noise assessment issue from the proposed modification. Noise modelling for the construction found that, for representative receiver locations, any potential increase in noise as a result of the construction of the proposed fine reject emplacement is likely to be imperceptible when compared with current and potential future mining operations.

The operations phase of the proposed modification will not increase the overall noise levels from HVO North.

## **Air Quality**

Construction of the fine reject emplacement will involve the temporary disturbance of the area immediately surrounding the proposed emplacement to rail an embankment within which wet fine reject will be pumped. The material required for construction of the emplacement embankment will be sourced from suitable material types from approved operations. Dust may be generated by the loading, transport, emplacement and shaping operations during construction, which may be exacerbated during periods of high winds.

It is intended, as far as practical, that existing mine plant will be used to construct the fine reject emplacement and that a limited number of additional plant may be required. If, however, additional plant items were required, there would be no material change to overall activity at the site.

Given the existing dust emissions in the immediate vicinity, the duration of construction and that there will be no significant increase in overall activity at the site, it is considered that construction of the emplacement would not result in any measurable increase in dust emissions.

As there would not be a significant increase in dust produced, and the location of the activity would not be significantly close to receptors, and also there is little prevailing wind towards receptors, it is reasonable to conclude that it is unlikely that the proposed modification would cause any additional impact at any surrounding sensitive receptor locations.

The fine reject emplacement is favourably located within the HVO North site relative to sensitive receptors as there is little prevailing wind in their direction. Furthermore, the construction of the fine reject emplacement will not result in a measureable increase in dust emissions. Dust emissions from either emplacement would be minimal as the fine reject material is wet. Accordingly, the construction and operation of the proposed emplacement is unlikely to result in any measureable increase in dust emissions from the HVO North site.

## **Visual**

The construction of the fine reject pipelines is considered to be consistent with the existing viewscape and will not have a measureable visual impact.



Sections of Lemington Road will clearly view the emplacement. The existing viewscape, however, includes mining infrastructure, together with areas of rehabilitated landform and will be consistent with the existing visual setting at HVO North in terms of height and features. Views from vehicles will be at a distance of more than 500m and vehicles will be travelling approximately 100 km/h. Therefore potential visual impacts are considered minor.

### **Greenhouse gases**

The proposed modification does not involve any increase in employee number, increase in production, or any increase in the haulage of coal. Fine reject is currently emplaced at HVO and the proposed modification represents a continuation of this practice. The construction of the fine reject emplacement will utilise existing plant removed from other activities. As a result, it is considered that the proposed modification will not contribute to an increase above the previously assessed GHG emissions from the site.

### **Traffic and transport**

Mine related traffic from operations at HVO and surrounding mines comprise a significant proportion of existing traffic volumes on the road network surrounding the project area.

The proposed modification does not involve any increase in employee numbers, increase in production, or any haulage of coal on public roads, and accordingly, will not affect traffic volumes on road or rail networks.

### **Non-indigenous heritage**

A search of the Australian Heritage Places Inventory, National Heritage List, Australian Heritage Database, NSW State Heritage Register, Roads and Maritime Services Sect 170 Register, Hunter Regional Environmental Plan 1989 (Heritage) and Schedule 3 of the Singleton Local Environmental Plan 1996 undertaken on 26 March, 2013 did not identify any items or places of non-indigenous heritage significance within or adjacent to the project area. The results of this search are consistent with the findings of the relevant previous assessments undertaken for HVO North. The proposed modification will not impact non-indigenous heritage.

### **Socio Economic**

HVO contributes significantly to the local and regional economy through, amongst other means, the direct employment of over 1 000 people. As fine reject capacity is a core requirement of

ongoing operations at HVO, the proposed modification is critical to the continuation of these significant contributions.

The proposed modification is not predicted to have significant impacts on community amenity, including impacts from noise and dust.

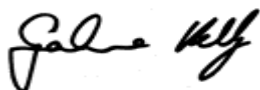
## **In Summation**

It is considered that the proposed modification of the HVO North DA 450-10-2003 to permit the construction and operation of the fine reject emplacement and pipelines leading to and from the proposed fine reject emplacement and Cumnock Void 3 for joint fine reject disposal is justified for the following reasons:

- It will allow the continuation of operations at HVO North and its ongoing economic and social benefits;
- The project area is suited for its purpose, given that the proposed modification will utilise previously disturbed land and does not require additional land acquisition;
- The EA demonstrates the environmental acceptability of the proposed modification, and indicates there would be no significant adverse social, economic or environmental impacts; and

Based on the assessment of potential environmental impacts which has been multi-disciplinary and involved consultation with the DP&I and other relevant stakeholders, the Hunter Valley Operations North Modification is anticipated to pose negligible additional environmental impacts beyond those already approved under DA 450-10-2003.

The Union considers that, this Project is consistent with currently approved Development Consent objectives of the EP&A Act, including the principles of ESD and therefore supports the proponent's application and there is no basis not to grant the Development Consent in the form sought.



**Grahame Kelly**  
**DISTRICT SECRETARY**