

3 November 2011

Department of Planning & Infrastructure  
22-33 Bridge Street  
SYDNEY NSW 2000

Attention: David Mooney

Dear David,

**Drayton Mine Project Approval Modification  
Environmental Assessment – Response to Submissions**

**1 INTRODUCTION**

Anglo Coal (Drayton Management) Pty Ltd (Drayton) submitted an Application for Modification to Project Approval 06\_0202 under Section 75W of the *Environment Planning & Assessment Act 1979* (EP&A Act) for the Drayton Mine (the Modification). The Application and supporting *Drayton Mine East Pit Tailings Emplacement & Explosives Storage Facility Modification, Environmental Assessment* (EA) (dated July 2011, prepared by Hansen Bailey) were submitted to the Department of Planning & Infrastructure (DP&I) and relevant government agencies for assessment on 8 July 2011.

DP&I received four submissions to the Application. Submissions from regulators were provided to DP&I from the Office of Environment & Heritage (OEH), Division of Resources & Energy (DRE) and Muswellbrook Shire Council (MSC). The Construction, Forestry, Mining and Energy Union (CFMEU) also provided a submission on the Application. The submissions are reproduced in **Appendix A**. This report has been prepared by Hansen Bailey Environmental Consultants on behalf of Drayton in response to the submissions noted above.

Input into the report has been provided by the relevant specialists involved in the preparation of the EA and Drayton personnel where appropriate. Excerpts from the submissions are re-stated in italics, with a response to each excerpt following as normal text.

## **2 OFFICE OF ENVIRONMENT & HERITAGE**

### **Submission – Part 1**

#### Aboriginal Cultural Heritage

*A review of the EA, the 'Aboriginal Archaeology and Cultural Heritage Assessment of Drayton Mine Extension' (dated May 2006) and the 'Anglo Coal (Drayton Management) Pty Ltd - Aboriginal Cultural Heritage Management Plan' (dated October 2008), was undertaken by OEH to assess the potential impacts of the projects on Aboriginal cultural heritage in accordance with OEH's Aboriginal cultural heritage assessment guidelines and the requirements of Part 6 of the National Parks and Wildlife Act 1974 (NPW Act). The following comments are provided to DP&I and the proponent following this review.*

*OEH notes that the explosives facility lies in an area containing landforms which have yielded a significant volume of evidence of Aboriginal occupation in the immediate local area. This evidence includes artefact scatters and isolated finds. OEH is aware that some of these sites have been impacted following approval from OEH. However, some sites remain valid, e.g., artefact scatter site # 37-2-1989. OEH considers that it is likely that further evidence of Aboriginal occupation will be found in the project area if the development proceeds.*

### **Response**

The proposed explosives facility is located in an area which has previously been disturbed by open cut mining methods. All known Aboriginal archaeology sites have been salvaged from the area. As such, the likelihood of identifying further evidence of Aboriginal occupation is considered extremely low.

Further to this, Drayton will immediately review all AHIMS sites applicable to their mining lease area and will submit Aboriginal Site Impact Recording Forms to OEH's AHIMS Registrar if required, in accordance with the requirements of Section 89A of the NPW Act for those sites which have had a Section 90 Consent to Destroy granted (such as #37-2-1989).

### **Submission – Part 2**

#### Aboriginal Cultural Heritage Management Plan

*OEH has reviewed the Aboriginal Cultural Heritage Management Plan (ACHMP) and recommends that the ACHMP is updated to ensure the document accurately reflects the 2010 amendments to the NPW Act and associated Aboriginal cultural heritage reforms.*

*OEH notes that the proponent has not provided details of the specific responsibilities of the registered Aboriginal stakeholders in Section 4.1 of the ACHMP. It is recommended that the specific responsibilities of the Aboriginal representative be incorporated into the ACHMP.*

*This should include, but be not limited to, the communities role in: the cultural heritage training/induction programs, the monitoring and salvaging activities planned to occur during construction, the development of the protocol for the on-going consultation and involvement in the conservation and management of the Aboriginal heritage in the project area, documenting cultural heritage outcomes and providing feedback to the proponent and/or their representatives.*

*OEH understands that at least 26 Aboriginal sites are likely to be impacted by the Drayton Mine project approval. Sections 4.7.4 and 4.7.10 of the ACHMP note that any Aboriginal objects recovered during proposed salvage and collection processes will be forwarded to the Local Aboriginal Land Council for safe keeping, prior to being reburied within the project area at the completion of all construction activities. It is also noted the proponent anticipates the salvage program to begin during the last half of 2008 and that a Cultural Heritage Management Report is to be finalised within 12 months of the salvage program being undertaken. A search of OEH's AHIMS has revealed that a Care Agreement has not been issued.*

*The proponent must ensure that these arrangements comply with Section 85A of the NPW Act. If a Care Agreement is sought from OEH, the proponent must provide evidence of the support or otherwise of all registered Aboriginal stakeholder groups. Further, if any Aboriginal sites have now been impacted by the development, the proponent is advised to promptly submit an Aboriginal Site Impact Recording (ASIR) form for each impacted site to OEH's AHIMS Registrar, in accordance with the requirements of Section 89A of the NPW Act.*

## **Response**

Drayton's Aboriginal Cultural Heritage Management Plan (ACHMP), as prepared in consultation with OEH, is subject to a two yearly review process. The ACHMP is therefore to be reviewed by May 2012. During this next review process, Drayton will revise the ACHMP in consultation with OEH and as per their comments above.

Drayton is also of the understanding that previous Cultural Heritage Management Reports had been submitted to OEH, along with any required Aboriginal Site Impact Recording (ASIR) form for each impacted site to OEH's AHIMS Registrar. Drayton will confirm this and resolve if necessary.

Further to the above, Drayton has been consulting with Registered Aboriginal Stakeholders in regard to a Care Agreement. Negotiations are continuing and the Care Agreement is anticipated to be finalised in the near future. Drayton will continue to liaise with OEH in this regard.

## Submission – Part 3

### Legislative Requirements

OEH reminds the proponent that the importance of protecting Aboriginal cultural heritage is reflected in the provisions of the NPW Act. The NPW Act has been amended recently and the proponent is also reminded to ensure they are familiar with the new requirements as they relate to the development and any subsequent assessment processes. Further advice regarding Aboriginal cultural heritage can be found on OEH's web-site at: <http://www.environment.nsw.gov.au/cultureandheritage.htm>

### Response

Noted. Drayton will review the NPW Act amendments and ensure these are applied across their operations, if relevant. Drayton will continue to liaise with OEH in regard to any future amendments of the NPW Act.

## 3 DIVISION OF RESOURCES & ENERGY

### Submission

The Division of Resources and Energy (DRE) of the Department of Trade & Investment, Regional Infrastructure & Services (DTIRIS) has reviewed the East Pit Tailings Emplacement & Explosive Storage Facility Environmental Assessment dated July 2011. DRE has no objections to the proposed modification and recommends approval with the inclusion of the conditional requirements for a Mining Operations Plan and an Annual Environmental Management Report to the satisfaction of the Deputy Director General of the DRE. The granting of any development consent modification should be subject to the following provisions:

1. The proponent should develop an effective dewatering strategy for the tailings disposal within the East Pit to the satisfaction of the DRE.
2. The proponent should amend the Mining Operation Plan, to include the proposed modification, to the satisfaction of the DRE.
3. The proponent should review the proposed modification activities in the Annual Environmental Management Report to the satisfaction of the DRE.
4. Integrated rehabilitation and environmental management reporting is to be captured in the existing Mining Operation Plan and Annual Environmental Management Report to the satisfaction of the Division of Resources and Energy's Director Environmental Sustainability.

5. *The proponent should commence discussions with DRE on the requirements for the preparation and submission of a Mining Operations Plan and the Annual Environmental Management Report.*

## **Response**

Noted. Drayton agrees to comply with the proposed provisions from DRE, should the modification approval be granted.

## **4 MUSWELLBROOK SHIRE COUNCIL**

### **Submission**

*Following the letter dated 2 September, Council submits its final comments of the Drayton Coal Mine (MP 06-0202 Mod 2) Section 75W Modification proposal.*

*Council supports the Application if, as a condition of the variation, the following conditions are added to the consolidated approval.*

1. *The Proponent must (in relation to Thomas Mitchell Drive) pay Council's reasonable costs of obtaining an appropriately qualified person to conduct a route and upgrade assessment to determine the incremental impact on Thomas Mitchell Drive.*
2. *The traffic study shall determine the appropriate contribution that Drayton Coal should contribute to the reconstruction of Thomas Mitchell Drive.*
3. *The corresponding contributions are to be made to Muswellbrook Shire Council.*
4. *The Proponent shall prepare an updated consolidated rehabilitation plan that will have due consideration of the Muswellbrook Shire Council Mining Rehabilitation Policy, and that shall integrate with the rehabilitation of surrounding projects. The revised rehabilitation plan shall be completed within 6 months from the date of gaining approval.*

## **Response**

As described in the EA, 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 Project, including Thomas Mitchell Drive, will result from the Modification. This conclusion is supported by an independent traffic assessment conducted by DC Traffic & Engineering. The assessment is presented in **Appendix B** to this letter.

Drayton is currently operating well below the approved limits stipulated in the Drayton Extension EA (2007) and PA 06\_0202. No additional increase in traffic movements is proposed due to the Modification to impact on Thomas Mitchell Drive.

Considering the above, it is therefore not considered appropriate to pay Council's costs of conducting a route assessment and upgrade of Thomas Mitchell Drive, as no additional impact from Drayton is proposed.

The revised final landform including the Modification is presented in Figure 5 of the EA. Drayton will revise their rehabilitation plan to reflect this change in final landform. Drayton will also continue to report their rehabilitation progress as part of their Annual Review, which is made available to the public and MSC.

## 5 CONSTRUCTION, FORESTRY, MINING AND ENERGY UNION

The Construction Forestry Mining and Energy Union (CFMEU) provided a detailed submission on the Modification. The submission is included in **Appendix A**.

The submission was supportive to all aspects of the EA. As such, it is not considered necessary to identify and support all of the CFMEU's comments within their submission on the EA.

## 6 CONCLUSION

We trust that this response meets your requirements. Please do not hesitate to contact myself on 02 6575 2000 if you have any questions.

Yours faithfully

**HANSEN BAILEY**



Melissa Walker  
Senior Environmental Scientist



James Bailey  
Director

## ***Appendix A***

### ***EA Submissions***



## Office of Environment & Heritage

Our reference: DOC11/38505 LIC08/570-03  
Contact: Kim Jefferson ph:4908 6827

14 SEP 2011

NSW Department of Planning  
Major Projects Assessment Mining and Industry Projects  
GPO Box 39  
SYDNEY NSW 2001  
Attention: Ms Naomi Nelson

Dear Ms Nelson

### **Environmental Assessment Drayton Coal Mine (MP 06\_0202 Mod 2) Section 75W Modification**

I refer to your letter dated 16 August 2011 seeking comments and recommend conditions of approval from the Office of Environment and Heritage (OEH) regarding the above proposed development. OEH has reviewed the document "*Drayton Mine East Pit Tailings emplacement and explosives storage facility Environmental Assessment*" prepared by Hansen Bailey Environmental Consultants dated July 2011 (the EA).

OEH understands that the proposed modification to the existing approval includes the emplacement of raw tailings within the East Pit void and construction and operation of an explosives storage facility.

OEH has no objection to the proposed development and provides the following comments. OEH's Recommended Conditions of Approval for this project are provided at **Attachment A**.

#### **Aboriginal Cultural Heritage**

A review of the EA, the '*Aboriginal Archaeology and Cultural Heritage Assessment of Drayton Mine Extension*' (dated May 2006) and the '*Anglo Coal (Drayton Management) Pty Ltd - Aboriginal Cultural Heritage Management Plan*' (dated October 2008), was undertaken by OEH to assess the potential impacts of the projects on Aboriginal cultural heritage in accordance with OEH's Aboriginal cultural heritage assessment guidelines and the requirements of Part 6 of the *National Parks and Wildlife Act 1974* (NPW Act). The following comments are provided to DP&I and the proponent following this review.

OEH notes that the explosives facility lies in an area containing landforms which have yielded a significant volume of evidence of Aboriginal occupation in the immediate local area. This evidence includes artefact scatters and isolated finds. OEH is aware that some of these sites have been impacted following approval from OEH. However, some sites remain valid, e.g. artefact scatter site # 37-2-1989. OEH considers that it is likely that further evidence of Aboriginal occupation will be found in the project area if the development proceeds.

The Department of Environment, Climate Change and Water is now known as the  
Office of Environment and Heritage, Department of Premier and Cabinet

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Ground Floor 117 Bull St Newcastle West NSW 2302  
Tel: (02) 4908 6800 Fax: (02) 4908 6810  
ABN 30 841 387 271  
[www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)



## **Aboriginal Cultural Heritage Management Plan**

OEH has reviewed the Aboriginal Cultural Heritage Management Plan (ACHMP) and recommends that the ACHMP is updated to ensure the document accurately reflects the 2010 amendments to the NPW Act and associated Aboriginal cultural heritage reforms.

OEH notes that the proponent has not provided details of the specific responsibilities of the registered Aboriginal stakeholders in Section 4.1 of the ACHMP. It is recommended that the specific responsibilities of the Aboriginal representative be incorporated into the ACHMP. This should include, but be not limited to, the communities role in: the cultural heritage training/induction programs, the monitoring and salvaging activities planned to occur during construction, the development of the protocol for the on-going consultation and involvement in the conservation and management of the Aboriginal heritage in the project area, documenting cultural heritage outcomes and providing feedback to the proponent and/or their representatives.

OEH understands that at least 26 Aboriginal sites are likely to be impacted by the Drayton Mine project approval. Sections 4.7.4 and 4.7.10 of the ACHMP note that any Aboriginal objects recovered during proposed salvage and collection processes will be forwarded to the Local Aboriginal Land Council for safe keeping, prior to being reburied within the project area at the completion of all construction activities. It is also noted the proponent anticipates the salvage program to begin during the last half of 2008 and that a Cultural Heritage Management Report is to be finalised within 12 months of the salvage program being undertaken. A search of OEH's AHIMS has revealed that a Care Agreement has not been issued.

The proponent must ensure that these arrangements comply with Section 85A of the NPW Act. If a Care Agreement is sought from OEH, the proponent must provide evidence of the support or otherwise of all registered Aboriginal stakeholder groups. Further, if any Aboriginal sites have now been impacted by the development, the proponent is advised to promptly submit an Aboriginal Site Impact Recording (ASIR) form for each impacted site to OEH's AHIMS Registrar, in accordance with the requirements of Section 89A of the NPW Act.

### **Legislative Requirements**

OEH reminds the proponent that the importance of protecting Aboriginal cultural heritage is reflected in the provisions of the NPW Act. The NPW Act has been amended recently and the proponent is also reminded to ensure they are familiar with the new requirements as they relate to the development and any subsequent assessment processes. Further advice regarding Aboriginal cultural heritage can be found on OEH's web-site at: <http://www.environment.nsw.gov.au/cultureandheritage.htm>.

If you require any further information on this matter please contact Kim Jefferson on (02)49086827.

Yours sincerely



**KAREN MARLER**  
Head Regional Operations Unit – Hunter Region  
Environment Protection and Regulation  
Office of Environment and Heritage  
Department of Premier and Cabinet

## **ATTACHMENT A - RECOMMENDED CONDITIONS OF APPROVAL FOR SECTION 75W MODIFICATION DRAYTON COAL MINE (MP06 0202 MOD 2)**

**Note:** Although the Environment Protection Authority is now a part of OEH, certain statutory functions and powers continue to be exercised in the name of the EPA. This includes licensing functions under the *Protection of the Environment Operations Act 1997*. In these instances, reference is made to the EPA instead of OEH.

### **ADMINISTRATIVE CONDITIONS**

#### **Works to be undertaken in accordance with information supplied**

1. Except as provided by these recommended conditions of approval, the works and activities shall be undertaken in accordance with the proposal contained in:
  - (a) The s75W modification application MP06\_0202 MOD 2 submitted to the NSW Department of Planning and Infrastructure;
  - (b) The document "Drayton Mine East Pit Tailings emplacement and explosives storage facility Environmental Assessment" prepared by Hansen Bailey Environmental Consultants dated July 2011.

unless otherwise specified in these conditions of approval.

### **OPERATIONAL CONDITIONS**

#### **Chemical Storage**

1. All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.
2. All bunds must be impervious and sized to contain at all times 110% of the largest container stored within the bund.
3. All above ground tanks must be designed and constructed in a manner which prevents the ingress of rain or water into the tanks.
4. All tanks must be clearly labelled to identify their contents.

#### **Erosion and Sediment Control**

1. Stormwater at all areas of the premises which has the potential to mobilise sediment and other material must be controlled and diverted through appropriate sediment and erosion control and/or pollution control measures/structures to prevent the pollution of waters.
2. Sediment and erosion control and/or pollution control measures/structures must be maintained at all times to prevent the pollution of waters.

### **ABORIGINAL CULTURAL HERITAGE**

1. In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist

and the registered Aboriginal representatives must be contacted to determine the significance of the object(s). The site is to be registered in the Aboriginal Heritage Information Management System (AHIMS) (managed by OEH) and the management outcome for the site included in the information provided to the AHIMS. Please also note that penalties now apply to corporations for failing to fulfil these requirements.

OEH, September 2011



## Resources & Energy

OUT11/16889

Mr Howard Reed  
Manager Mining Projects  
Major Project Assessments  
NSW Department of Planning & Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

Attention: Naomi Nelson

Dear Mr Reed

**Drayton Coal Mine  
Section 75W Modification  
MP 06\_0202 Mod 2**

I refer to your letter of the 16 August 2011 regarding Anglo Coal (Drayton Management) Pty Limited modification application for the Drayton Coal Mine with respect to the installation for the emplacement of raw tailings within the east pit void and for the construction and operation of an explosives storage facility on site.

The Division of Resources and Energy (DRE) of the Department of Trade & Investment, Regional Infrastructure & Services (DTIRIS) has reviewed the *East Pit Tailings Emplacement & Explosive Storage Facility Environmental Assessment* dated July 2011. DRE has no objections to the proposed modification and recommends approval with the inclusion of the conditional requirements for a Mining Operations Plan and an Annual Environmental Management Report to the satisfaction of the Deputy Director General of the DRE. The granting of any development consent modification should be subject to the following provisions:

- The proponent should develop an effective dewatering strategy for the tailings disposal within the East Pit to the satisfaction of the DRE.
- The proponent should amend the Mining Operation Plan, to include the proposed modification, to the satisfaction of the DRE.
- The proponent should review the proposed modification activities in the Annual Environmental Management Report to the satisfaction of the DRE.
- Integrated rehabilitation and environmental management reporting is to be captured in the existing Mining Operation Plan and Annual


Department of Trade & Investment, Regional Infrastructure & Services  
Division of Resources and Energy  
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Environmental Management Report to the satisfaction of the Division of Resources and Energy's Director Environmental Sustainability.

- The proponent should commence discussions with DRE on the requirements for the preparation and submission of a Mining Operations Plan and the Annual Environmental Management Report.

Should you have any enquires regarding this matter please contact Julie Moloney, Principal Adviser, Industry Coordination on (02) 4931 6549.

Yours sincerely

  
**William Hughes**  
**A/Director**  
**Minerals Operations**

9/9/11

7 October 2011

**Howard Reed  
Mining Team  
Department of Planning and Infrastructure  
GPO Box 39  
Sydney NSW 2001**

Dear Mr Reed,

**Drayton Coal Mine (MP 06-0202 Mod 2) Section 75W Modification**

Following the letter dated 2 September, Council submits its final comments of the Drayton Coal Mine (MP 06-0202 Mod 2) Section 75W Modification proposal.

Council supports the Application if, as a condition of the variation, the following conditions are added to the consolidated approval.

1. The Proponent must (in relation to Thomas Mitchell Drive) pay Council's reasonable costs of obtaining an appropriately qualified person to conduct a route and upgrade assessment to determine the incremental impact on Thomas Mitchell Drive.
2. The traffic study shall determine the appropriate contribution that Drayton Coal should contribute to the reconstruction of Thomas Mitchell Drive.
3. The corresponding contributions are to be made to Muswellbrook Shire Council.
4. The Proponent shall prepare an updated consolidating rehabilitation plan that will have due consideration of the Muswellbrook Shire Council Mining Rehabilitation Policy, and that shall integrate with the rehabilitation of surrounding projects. The revised rehabilitation plan shall be completed within 6 months from the date of gaining approval.

Yours faithfully



**Russell Esdaile  
Acting General Manager**

(TM)



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 construction 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<sup>3</sup> 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 enable mining to the north. Following the tailings emplacement, Macquarie Generation would then complete 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.

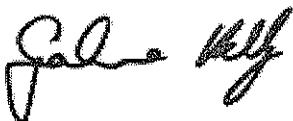
Significant planning has been undertaken to locate and design the explosives storage facility so as to minimise impacts on the neighbouring community and the surrounding natural environment.

## **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**

## ***Appendix B***

### ***Traffic Assessment***



27 October 2011

Melissa Walker  
Senior Environmental Scientist  
Hansen Bailey  
PO Box 473  
Singleton NSW 2330

Dear Melissa

### **Drayton Coal Mine (MP06-0202 Modification 2): Review of traffic impacts.**

I refer to Muswellbrook Shire Council's (MSC) letter dated 7 October 2011 addressed to the Department of Planning and Infrastructure which recommended conditions of consent for the Drayton Modification MP06-0202. In that letter, MSC inferred that Anglo American's proposed Modification would lead to increased impacts to Thomas Mitchell Drive. On that basis, MSC also inferred that Anglo American should be liable to pay contributions to the reconstruction of Thomas Mitchell Drive.

The purpose of this letter is to provide a quantitative review of the traffic impacts associated with the Modification 2.

#### **Understanding of the traffic implications**

I understand that Anglo American are proposing (under Modification 2) to construct an explosives storage facility within their Project Boundary.

Under the current (pre-Modification) conditions, Drayton's inventory of explosives are stored in the neighbouring Mt. Arthur Coal Project Boundary. The explosives are delivered by trucks which access the property via the existing Mt. Arthur Coal Access Road, located on Thomas Mitchell Drive approximately 5.8km west of the New England Highway.

Currently, the explosive materials are transported to the Mt Arthur storage facility via semi-trailers which are sourced from Liddell and Newcastle both to the south-east of the Project Boundary. Each week, an average of 10 one-way semi-trailer trips are generated from Liddell to Mt. Arthur, and 15 one-way semi-trailer trips are generated from Newcastle to Mt. Arthur. This equates to 20, and 30 semi-trailer trips when accounting for the empty return trips.

#### **Quantification of the existing and proposed traffic arrangements**

Table 1 provides details of the existing and proposed transport arrangements, as well as the net differences with regard to traffic generation, road safety and road asset impact.

**Table 1 Comparison between existing and Modification conditions.**

Item	Existing conditions	Proposed Modification conditions	Net difference
Number of semi-trailer trips generated per week.	25 westbound. 25 eastbound (empty).	25 westbound. 25 eastbound (empty).	No difference to number of trips generated inbound and outbound.
Destination.	Mt Arthur Coal via the Mt. Arthur Coal Access Road.	Drayton Mine via Drayton Mine Access Road.	
Length of trip on Thomas Mitchell Drive.	5.8km per direction.	0.9km per direction.	Reduction in one-way trip length by 4.9km per trip.
Number of vehicle-kilometres travelled (VKT) generated on Thomas Mitchell Drive by delivery trucks each year.	29,000 VKT	4,500 VKT	Reduction by 24,500 VKT per year on Thomas Mitchell Drive (84% reduction).
			Corresponds to a reduction in crash risk exposure by 84%.
Number of standard axle repetitions generated on Thomas Mitchell Drive per week between New England Highway and Drayton Mine Access Road (by explosives delivery trucks)	Equivalent to that of 25 semi-trailers per direction per week.	Equivalent to that of 25 semi-trailers per direction per week.	No difference.
Number of standard axle repetitions generated on Thomas Mitchell Drive per week between Drayton Mine Access Road and Mt. Arthur (by explosives delivery trucks).	Equivalent to that of 25 semi-trailers per direction per week.	None	100% reduction in standard axle repetitions generated by explosives delivery trucks

## **Commentary on traffic generation implications**

Traffic impacts: There would be no net difference to the number of trucks generated per direction per week between the existing and Modification conditions. Furthermore, there would be no change to the types of trucks, the consignment schedules, or the source locations. As such, the same number of truck movements would be generated at the New England Highway/ Thomas Mitchell Drive intersection. With all other things being equal, there should be no impact to the operation of this intersection.

Road safety impacts: There would be a significant (84%) reduction in the number of VKTs generated along Thomas Mitchell Drive associated with the delivery of explosives. This is primarily due to the reduction in trip length along Thomas Mitchell Drive. This would significantly reduce the crash risk exposure for truck drivers and other road users.

Road asset impacts: The section of Thomas Mitchell Drive between the New England Highway and Drayton Mine Access Road would experience the same traffic volumes and hence the same number of standard axle repetitions due to truck-delivery of explosives. There is no net change in this regard. However, there would be a 100% reduction of standard axle repetitions generated by these trucks on the 4.9km section of Thomas Mitchell Drive between Drayton Mine Access Road and Mt. Arthur Access Road. This would significantly reduce the wear and tear on this section of Thomas Mitchell Drive.

## **Conclusions and recommendation**

Based on the assessment provided above, the proposed Modification has merit in significantly reducing the length of truck trips along Thomas Mitchell Drive. This would in turn result in substantial reduction in road safety (crash) risk, as well as reduce the length of the route exposed to wear and tear through axle loading.

It is concluded that there are no discernible negative impacts from a road safety, traffic performance or road asset perspective as a result of the proposed Modification. As such, there is little justification for road improvement contributions in these respects.

If there are any further questions, please do not hesitate to contact me on the details below:

Kind regards



### **Damien Chee**

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