



DOC17/255317, File No. EF13/3816

Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

3 May 2017

Attention: melanie.hollis@planning.nsw.gov.au

Dear Ms Hollis

**WAMBO COAL MINE MODIFICATION 17 (DA 305-7-2003)
SOUTH BATES EXTENSION**

I refer to your email dated 28 March 2017 and the document titled "*Wambo Coal Pty Limited South Bates Extension Modification Environmental Assessment for the Modification of DA 305-7-2003 (Mod 17) Extension of the Approved South Bates Underground Mine*" dated March 2017 ("EIS").

We understand that the proposal involves:

- development of nine underground longwall panels in the Whybrow coal seam;
- recovery of an additional 18 million tonnes of run-of-mine coal;
- associated increase in the production of coarse coal rejects and tailings and emplacement in existing storage facilities;
- extension of the approved underground mine life by 7 years until 2039; and
- construction and operation of new ventilation shafts, gas drainage infrastructure and other ancillary infrastructure within the approved surface development area.

We have reviewed the EIS and provide comments as Attachment 1.

The EPA is unable to provide advice on noise emissions or noise issues within the time available to provide comments, advice and recommended conditions of approval. EPA may provide noise advice and recommended conditions of approval to DPE when the noise review is completed.

Recommended Conditions of Approval Without Noise Conditions

We have reviewed the information provided, and have determined that, should development consent be granted, the EPA would be able to issue a notice of variation to Environment Protection Licence 529 ("the Licence") in accordance with Section 58 of the *Protection of Environment Operations Act 1997* ("POEO Act") to include the revised recommended conditions of approval and upgrade the Licence. However the EPA would be unable to include any noise limits or conditions on Wambo's Licence at this time.

Recommended Conditions of Approval are provided at Attachment 2. The recommended conditions of approval attached for this development do not include the mandatory conditions that already exist for the premises as part of the current Licence or any conditions related to noise.

If DPE grant consent for this proposal these conditions should be incorporated in the consent. The Recommended Conditions of Approval provided at Attachment 2 relate to the development as proposed in the documents titled *"Wambo Coal Pty Limited South Bates Extension Modification Environmental Assessment for the Modification of DA 305-7-2003 (Mod 17) Extension of the Approved South Bates Underground Mine"* dated March 2017 ("EIS").

In the event that the development is modified either by the applicant prior to the granting of consent or as a result of a condition proposed to be attached to the consent, it will be necessary to consult with the EPA about the changes before consent is issued. This will enable the EPA to determine whether a recommended condition of approval needs to be modified in the light of the changes.

We have provided further information with respect to these issues in Attachment 1. If you require any further information regarding this matter please contact Natasha Ryan on (02) 4908 6833.

Yours sincerely



MARK HARTWELL
Head Regional Operations Unit - Hunter
Environment Protection Authority

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Encl: Attachment 1: EPA's review of EIS
Attachment 2: EPA's Partial Recommended Conditions of Approval

ATTACHMENT 1

**ENVIRONMENT PROTECTION AUTHORITY
REVIEW OF ENVIRONMENTAL IMPACT STATEMENT
WAMBO MINE SOUTH BATES EXTENSION MODIFICATION 17 (DA 305-7-2003)**

The Environment Protection Authority ("EPA") has undertaken an assessment of the document titled *"Wambo Coal Pty Limited South Bates Extension Modification Environmental Assessment for the Modification of DA 305-7-2003 (Mod 17) Extension of the Approved South Bates Underground Mine"* dated March 2017 ("EIS") prepared by Peabody.

The following comments are provided to Department of Planning and Environment ("DPE") in determination of the project proposal.

Air Quality Impact Assessment

The EPA has reviewed the EIS and its appendix J, *'Air Quality and Greenhouse Gas Review'*, (Todoroski 2016). The EPA understands that modification 17 proposes to increase mine life by five years to recover additional reserves to the north-west of the current South Bates mine. Both the Whybrow and South Bates underground mines would be extended to recover the additional reserves. Existing infrastructure and support services would be used for the continued operation. Additional ventilation shafts would be constructed and the application maintains current mining intensity of 9.75 Mtpa.

Assessment of potential impacts to the air environment has been conducted broadly in agreement with guidance in *'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales'*.

Assessment estimated a negligible change in dust emissions and no reasonably measureable change in dust concentrations at any receptor, Todoroski (2016, p17 and 19). The EPA advise DPE that assessment found impacts from the proposal do not appreciably differ from impacts from currently approved operation. As such the proposal does not require additional conditions of approval to protect the air environment.

EPA Request Proponent to Update Assessment with Revised Air Quality Criteria

However we advise DPE that the proponent should revise the assessment to include review of results against the revised air quality criteria.

Gas Drainage and Flares

We understand that surface gas drainage and underground in-seam gas drainage may be required for the modification of first workings development and longwalls to reduce gas content. The EIS identifies that the gas may be vented or flared or collected in a centralised gas plant.

If flares are incorporated the EPA would need to licence the flares as air monitoring and discharge points and add conditions to the licence.

Surface Water Management

We advise DPE that all water on the premises with an electrical conductivity over 400µs/cm must be managed as part of the mine water system and must only be discharged from the premises through the licensed Hunter River Salinity Trading Scheme ("HRSTS") discharge point. This is consistent with Clause 19 of the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 ("HRSTS Reg").

The surface water quality summary provided in Table 2.3 of Appendix C of the EIS demonstrates the likely impacts of mining where electrical conductivity increases six fold above and below the current underground mining footprint and adjacent surface mining operations. The proponent has identified impact assessment criteria for surface water in North Wambo Creek at between 1155 and 2246 µs/cm.

We advise DPE that this impact assessment criteria is inconsistent with the Australian and New Zealand Environment Council 2000 *Australian and New Zealand Guidelines for Fresh and Marine*

Water Quality ("ANZECC Guidelines"). The ANZECC Guidelines establish how to derive site specific trigger values ("SSTV") which can then be used to assess impacts. The proponent has elected to use 1155 and 2246 $\mu\text{S}/\text{cm}$ as impact assessment criteria which in the EPA's opinion is already too late to determine an impact is occurring and should be mitigated. It would be more appropriate for the proponent in their water management TARP to use the maximum concentration measured for North Wambo Creek upstream at 563 $\mu\text{S}/\text{cm}$ as the impact assessment criteria rather than assume degradation of the creek due to underground mining impacts is acceptable. That approach is inconsistent with the objects of the *Protection of the Environment Operations Act 1997* ("POEO Act") and the ANZECC Guidelines.

We recommend to DPE that SSTVs are used as impact assessment criteria and are derived in accordance with the ANZECC Guidelines, not using highly modified or impacted site water quality data.

We advise DPE that the proponent has identified through water balance modelling that the water inventory is likely to reduce until 2023 and then increase through the life of the project. The proponent states that any excess water could be stored in mining voids and discharged under the HRSTS through purchase of additional salt credits. At present the proponent holds 48 salt credits and United Collieries hold 2 salt credits.

The proponent has included predicted United Wambo water balance in its calculations. The modelling identifies that the proponent would need to purchase an additional 63 HRSTS salt credits so that 126 HRSTS credits are held and saline water could be discharged lawfully from the premises under the HRSTS Reg from its discharge point.

We advise DPE that although the water balance was modelled there was no information about water quality of surface water dams provided in the EIS, particularly in regard to salinity which should have been modelled to determine the predicted salt loads of water stored and to be discharged from the premises. Additionally the quality of water in the dams that discharge directly to waters needs to be shown in the EIS including potential impacts and likely volumes to be discharged from the premises. This may have been provided for United Wambo EIS, however United Wambo project has not been approved and information should have been included in Wambo South Bates EIS due to the integration of water management between underground mining and surface operations, and in the event that the United Wambo project is not approved.

Figure 3 in Appendix L demonstrates that water from Montrose Water Storage Dam, Dam M5, M4, M3 and M6 are discharged into North Wambo Creek yet there is no assessment of likely environmental impacts of this discharge nor the likely quality of water leaving the premises. Similarly Figure 3 in Appendix L demonstrate that Dam M1 discharges to Waterfall Creek and Dams U2, Milk Can Dam and Dam W8 discharge to Wollombi Brook. Most of these storages are yet to be constructed but there is no description of whether they are mine water management dams (ie: electrical conductivity above 400 $\mu\text{S}/\text{cm}$) or sediment dams. For Example Figure 3 identifies that the Milk Can Dam receives wash down water from the CHPP Dams and also supplies water to the CHPP. The water in the Milk Can Dam is likely to be saline due to coal contact and if discharged to Wollombi Brook at an unauthorised discharge point (not HRSTS Discharge Point) would likely contravene the HRSTS Reg and s120 of the POEO Act.

Irrespective of this the EPA can manage this through the Environment Protection Licence with HRSTS discharge point conditions and conditions regarding section 120 of the POEO Act such that all saline water must be discharged in accordance with the HRSTS Regulation. However we advise DPE that should any saline water (that is water over 400 $\mu\text{S}/\text{cm}$) be discharged from these dams, that the proponent would be contravening clause 19 of the HRSTS Regulation.

EPA Request Water Quality Information for Water Storages

We advise DPE that the proponent should provide water quality monitoring results for water storages on the premises that currently discharge to waterways to demonstrate to the EPA that the dam storages will not discharge saline water to waterways. The proponent should also characterise the water storages as saline mine water or sediment dams and include rainfall and storage design factors and likely annual discharge volumes from each storage. Figure 8 in Appendix L identifies that there is no discharge of sediment dams. EPA request a response from the proponent whether this is in fact the case and the proponent will be managing all dams by pumping water from the sediment dams back to the mine water system.

Should the dams be designed to discharge the proponent should provide environmental assessment of the dam discharges to waterways which should include an assessment of the receiving waters water quality and habitat to demonstrate that discharges are meeting the waterways environmental objectives and s120 of the POEO Act.

Waste

We advise DPE that tailings are to be emplaced within mine voids on the premises, and if United Wambo Joint Venture is approved, the tailings will be transferred off premises to the United Wambo premises. We advise DPE that this is lawful under the Resource Recovery Orders and Exemptions under the Protection of the Environment Operations (Waste) Regulation 2014 for coal washery rejects.

ATTACHMENT 2

**ENVIRONMENT PROTECTION AUTHORITY
RECOMMENDED CONDITIONS OF APPROVAL
WAMBO MINE SOUTH BATES EXTENSION MODIFICATION 17 (DA 305-7-2003)**

The EPA provide the following recommended conditions of approval, advise DPE that these conditions are specific to the project and do not include the mandatory conditions that already exist for the premises on Environment Protection Licences nor any conditions relating to noise.

AIR QUALITY MONITORING AND MANAGEMENT CONDITIONS

1. The proponent must apply for a licence variation from the EPA in accordance with section 58 of the *Protection of the Environment Operations Act 1997* prior to construction of flares on the premises.
2. Flares must be operated by the proponent such that there is no visible emission other than for a period of no more than 5 minutes in any 2 hours, except for heat haze.
3. The proponents Air Quality Monitoring Strategy must include continuous monitoring for PM₁₀ at upwind and downwind locations of the project approved in writing by the EPA.
4. The monitoring must be undertaken in accordance with the EPA's *Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales* unless otherwise approved in writing by the EPA.

WATER QUALITY AND WATER MANAGEMENT

5. Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation of the activity, Section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in connection with the carrying out of any scheduled development works or activity.
6. Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation of the activity, the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 must be complied with in connection with the carrying out of any scheduled development works or activity.

WASTE MANAGEMENT

7. The proponent must not cause, permit or allow any waste to be received on the premises unless it complies with a general or specific resource recovery order or exemption under the Protection of the Environment Operations (Waste) Regulation 2014.

Environment Protection Authority
3 May 2017



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Department of Planning and Environment
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Attention: melanie.hollis@planning.nsw.gov.au

11 May 2017

Dear Ms Hollis

**WAMBO COAL MINE MODIFICATION 17 (DA 305-7-2003)
SOUTH BATES EXTENSION NOISE ASSESSMENT**

I refer to your email dated 28 March 2017 and the document titled "*Wambo Coal Pty Limited South Bates Extension Modification Environmental Assessment for the Modification of DA 305-7-2003 (Mod 17) Extension of the Approved South Bates Underground Mine*" dated March 2017 ("EIS") and our submission to Department of Planning and Environment ("DPE") dated 3 May 2017.

The Environment Protection Authority's ("EPA") recommended condition of approval for noise are provided and additional comments provided in Attachment 1.

Recommended Condition of Approval - Noise

We advise DPE that our recommendation is that the existing noise limits in Schedule 4 of the Wambo Development Consent DA 305-7-2003 (as modified) be retained for this proposed modification.

EPA Noise Review Comments

We have provided further information with respect to these issues in Attachment 1.

If you require any further information regarding this matter please contact Natasha Ryan on (02) 4908 6833.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Mark Hartwell', with a large, sweeping flourish underneath.

MARK HARTWELL
Head Regional Operations Unit - Hunter
Environment Protection Authority

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Encl: Attachment 1: EPA's review of NIA

ATTACHMENT 1

ENVIRONMENT PROTECTION AUTHORITY REVIEW OF NOISE IMPACT ASSESSMENT WAMBO MINE SOUTH BATES EXTENSION MODIFICATION 17 (DA 305-7-2003)

The Environment Protection Authority ("EPA") has undertaken an assessment of the document titled *"Wambo Coal Pty Limited South Bates Extension Modification Environmental Assessment for the Modification of DA 305-7-2003 (Mod 17) Extension of the Approved South Bates Underground Mine"* dated March 2017 ("EIS") prepared by Peabody.

Comments were previously provided to DPE by the EPA on 3 May 2017. The following comments are provided to Department of Planning and Environment ("DPE") in determination of the project proposal with respect to Noise.

Noise Impact Assessment

We advise DPE that there are no proposed changes to the run of mine ("ROM") coal production rate, or ROM coal processing rate through the coal handling and preparation plant ("CHPP"). There would be no changes to the approved Wambo open cut mining operations, product coal rail transport operations, or the approved operating hours due to the Modification. While the proposed extension would extend the underground mine life by seven years, it would not alter the approved South Wambo mine layout or associated surface infrastructure.

We note that the proposed modification would primarily use the existing approved surface infrastructure, but would involve the construction and operation of two new ventilation shafts. Other ventilation fans would be reconfigured so that there would not be additional ventilation fans operating at the same time. As described in Table 5 of the Noise Review, the total sound power level of the modified underground mine is only 0.2 dB higher than that of the existing underground mine. However, the distribution of the noise sources making up the total sound power level is also important. This is particularly so for ventilation fans, which can be located some distance from other mine noise sources and closer to noise sensitive receiver locations. Sound power levels of equipment used during construction activities for the ventilation shafts would not be significant in the context of other operational noise sources on site. The cumulative impacts of the Modification, as predicted in Table 6 of the Noise Review, are also within 0.3 dB of the existing operations and unlikely to result in adverse impacts. The proponent is not seeking an increase in the noise limits.

Although the existing noise limits were derived in 2003, the modifications since appear to be mostly about changes in underground operations, or to do with relatively minor surface changes, such that they have been accommodated without changes in the noise limits. It is the EPA's opinion that background noise levels in the area are more likely to have increased since 2003 rather than decreased. In view of the above, EPA recommends that the existing noise limits in Schedule 4 of the Wambo Development Consent DA 305-7-2003 (as modified) be retained for this proposed Modification. As discussed in Section 6.5 of the Noise Review, a review of the acoustical design of the modified ventilation system prior to construction should be made an additional requirement in the Noise Management Plan for the premises.

Environment Protection Authority
10 May 2017

~~ENVIRONMENTAL PROTECTION AUTHORITY (EPA) has undertaken an assessment of the document titled "Wambo Coal Pty Limited South Bates Extension Modification Environmental Assessment for the Modification of DA 305-7-2003 (Mod 17) Extension of the Approved South Bates Underground Mine" dated March 2017 ("EIS") prepared by Peabody.~~