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Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2330

Attention: Ms Megan Dawson

By email: megan.dawson@planning.nsw.gov.au

24 October 2017

Dear Ms Dawson

**HV Operations South MP 06_0261 MOD 5
Review of Further Information Provided - Air**

I refer to your email dated 5 October 2017 and the letters from Todoroski Air Sciences ("TAS") dated 18 September 2017 regarding *United Wambo Open Cut Coal Project and Hunter Valley Operations Modification 5* and 15 September 2017 regarding *Further Response to EPA Reviews of Submissions for HVO South Modification 5*.

The Environment Protection Authority ("EPA") previously reviewed the Environmental Impact Statement ("EIS") and the Response to Submissions ("RTS") and requested additional information to demonstrate that the proposal meets all impact assessment criteria. The 15 September 2017 letter from Todoroski Air Sciences provided a response to those issues raised by EPA.

The EPA understand that Department of Planning and Environment ("DPE") requested revised modelling of the United Wambo Project and HVO Mod 5 project.

Recommended Conditions of Approval

The EPA has reviewed the revised cumulative air quality impact modelling, and has determined that, should development consent be granted, it would be able to issue a notice of variation to Environment Protection Licence 640 ("the Licence") in accordance with section 58 of the Protection of the Environment Operations Act 1997 ("POEO Act") to include the revised recommended conditions of approval for air and update the licence.

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. They supplement the previous information provided to DPE toward assessment of the proposal.

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 document titled *"Hunter Valley Operations South – Modification 5 Environmental*

Assessment Prepared for HV Operations Pty Ltd dated February 2017 and prepared by EMM ("the EA") and the supplementary documentation provided by DPE towards assessment of the project.

If 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.

Further assessment of the cumulative air quality impact assessment is provided in Attachment 1.

The EPA's additional recommended conditions of approval are provided in Attachment 2.

If you require any further information regarding this matter, please contact me on 4908 6833 or by email to hunter.region@epa.nsw.gov.au.

Yours sincerely



MARK HARTWELL
Head Regional Operations Unit - Hunter
Environment Protection Authority

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ATTACHMENT 1

**ENVIRONMENT PROTECTION AUTHORITY – REVIEW OF REVISED CUMULATIVE AIR
QUALITY IMPACT ASSESSMENT
MP 06_0261 MOD 5 HV OPERATIONS PTY LTD**

The Environment Protection Authority ("EPA") has reviewed the documents by Todoroski Air Sciences ("TAS") dated 18 September 2017 regarding *United Wambo Open Cut Coal Project and Hunter Valley Operations Modification 5* and 15 September 2017 regarding *Further Response to EPA Reviews of Submissions for HVO South Modification 5*.

The EPA provide the following comments to the Department of Planning and Environment ("DPE") toward assessment of the project.

Background

Initial assessment of the Environmental Impact Assessment predicted significant air quality impacts at four non-mine receptors. These impacts exceed the criteria set out in the Department of Planning and Environment's 'Voluntary Land Acquisition and Mitigation Policy' and so they qualify for acquisition rights. Two of these receptors are uninhabited – 102 Warkworth Hall, and 264 St Phillip's Church. The other two receptors – 77 and 471 – have existing acquisition rights from other mining operations.

Cumulative assessment was carried out for nine receptors closest to the mine. Additional days exceeding the 24-hour PM₁₀ impact assessment criterion of 50 µg/m³ were predicted at seven of the nine representative receptors. The assessment fails to identify all non-mine houses assessed as experiencing additional exceedances of this criterion. Assessment also found exceedances of the annual impact assessment criterion for PM₁₀ (25 µg/m³) at six receptors.

The EPA provided comment on the proposed modification raising eight issues regarding assessment of impacts to the air environment. EMM Consulting provided a response to submissions. The EPA reviewed that finding that 6 of the 8 issues were resolved. The remaining two issues are closely linked and relate to assessed impacts exceeding 24-hour impact assessment criteria.

Todoroski Air Sciences ("TAS") have provided further information as the results of assessing impacts from a scenario in which reactive management was used to reduce emissions under adverse conditions.

The DPE requested revised modelling of this proposal and of the adjacent United Wambo Coal Project. The revised modelling was to use a common meteorology data set and to exchange emissions information so that each mine could be explicitly represented in the other mine, using the estimated emissions for the development proposal.

In addition to the letters by TAS dated 15 September 2017, the EPA have also reviewed the following documents:

- 'Further Response to EPA Review of Submissions for HVO South Modification 5', letter from Todoroski Air Sciences to Yancoal Australia Ltd dated 15th September 2017, (TAS, 2017c);
- 'Hunter Valley Operations South - Modification 5 Response to Submissions'. EMM consulting 01 June 2017 (RTS);
- 'Hunter Valley Operations South – Modification 5 Environmental Assessment', EMM consulting, 01 February 2017 (EIS);
- 'Air Quality and Greenhouse Gas Assessment HVO South Modification 5', Todoroski Air Sciences, 25 January 2017 (TAS 2017a); appendix F to EIS; and
- 'HVO South Modification 5 – Update of the Approved Methods', letter from Todoroski Air Sciences to EMM Consulting dated 03 March 2017 (TAS 2017b).

The EPA also refers to:

- *'Approved Methods for the Sampling and Analysis of Air Pollutants in NSW'*, (*Approved Methods Sampling*) available at <http://www.epa.nsw.gov.au/resources/air/07001amsaap.pdf>
- *'Approved Methods of the Modelling and Assessment of Air Pollutants in NSW'* (*Approved Methods Modelling*) available at <http://www.epa.nsw.gov.au/resources/epa/approved-methods-for-modelling-and-assessment-of-air-pollutants-in-NSW-160666.pdf>
- *'United Wambo Open Cut Coal Project and Hunter Valley Operations Modification 5'*, letter from Todoroski Air Sciences and Jacobs to Glencore United and Yancoal dated 18th September 2017 (Joint Letter)

Revised Cumulative Air Impact Modelling

The letter dated 15 September 2017 by TAS presents results from additional dispersion modelling to assess impacts from the proposed modification of the HV Operations South Modification 5.

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."*

The EPA requested assessment showing mitigation measures to remove assessed exceedances of the 24-hour impact assessment for PM₁₀ concentration. TAS assessed impacts from emission reduction by cessation of material movement in both the pit and overburden areas (reactive management).

Assessment predicts impacts less than the impact assessment criteria for the project design as assessed, using proactive and reactive management to reduce dust. The revised modelling showed overall slightly lesser impacts, thereby supporting the previous assessment and the further information provided.

TAS propose proactive and reactive management to ensure emissions from the proposal meet all impact assessment criteria. Assessment predicts that diligent implementation of proactive and reactive management strategies can be effective.

United Wambo

HVO South is adjacent to the United Wambo coal mining complex. Development approval has been sought for increased production from this complex, the United Wambo Coal Project ("UWCP").

Preliminary estimates of emissions from that proposal were included as explicit emissions in the assessment for HVO South Modification 5.

Similarly, assessment of UWCP included estimated emissions from HVO South modification. As part of their review of UWCP, DPE commissioned Ramboll Environ Aust Pty Ltd to conduct an independent peer review of the air quality assessment. Ramboll recommended revised air quality assessment from both UWCP and HVO South modification 5 using harmonised emissions estimates (information exchange) and meteorology from a larger number of sites with which to characterise local meteorology. Jacobs and TAS collaborated to meet this request, detailing results in a Joint Letter.

Environment Protection Authority 24 October 2017

ATTACHMENT 2

**ENVIRONMENT PROTECTION AUTHORITY
RECOMMENDED CONDITION OF APPROVAL - AIR
MP 06_0261 MOD 5 HV OPERATIONS PTY LTD**

Dust

All operations and activities occurring at the premises must be carried out in a manner that prevents and minimises the emission of air pollutants from the premises.

The premises must be maintained in a manner that prevents and minimises the emission of air pollutants.

Air Quality Management Plan

The proponent must develop and implement an air quality management plan prior to the commencement of project operations. The plan must include proactive and reactive best practices measures. As a minimum, the air quality management plan must include the following parts:

1. Key performance indicator (s);
2. Monitoring methods;
3. Location, frequency and duration of monitoring;
4. Record keeping;
5. Reactive management strategy
6. Response mechanisms; and
7. Compliance reporting.

Environment Protection Authority 24 October 2017