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The Director
Resource & Energy Assessments
Planning and Assessment Division
Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2124
Email: philip.nevill@planning.nsw.gov.au

Attention: Philip Nevill

EPA Advice on Environmental Impact Statement

Dear Mr O'Donoghue,

Thank you for the request for advice from Public Authority Consultation (PAE-10521210), requesting the review by the NSW Environment Protection Authority (EPA) of the Environmental Impact Statement (EIS) for the proposed Narrabri Underground Mine Stage 3 Extension Project (Application SSD-10269) at 10 Kurrajong Creek Road, BAAN BAA NSW 2390.

The EPA has reviewed the following documents:

- *Narrabri Underground Mine Stage 3 Extension Project Environmental Impact Statement* – Whitehaven Coal – undated and associated appendices.

The EPA understand the proposal is for:

- the extension of the underground mining areas at the Narrabri Mine to access additional coal reserves within Mining Lease Applications 1 and 2.
- Increase of total coal production from 170 million tonnes to 252 million tonnes.
- Construction of additional gas drainage, mine safety pre-conditioning, mine ventilation system, services corridors, boreholes, access tracks and electricity transmission lines.
- Disposal of exploration drilling waste in the reject emplacement area, including receipt of exploration drilling waste products from off-site.
- Development of a Southern Mine Water Storage.

Based on the information provided, the proposal will be subject to a requirement to hold an environment protection licence under sections 43, 47, 48, 55 and/or 122 of the *Protection of the Environment Operations Act 1997* (POEO Act) for coal works clause 10, and mining for coal clause 28, of Schedule 1 of the POEO Act.

The EPA has reviewed the EIS and notes that the EIS does provide the information required by the Secretary's Environmental Assessment Requirements SSD-10269.

The EPA has the following additional comments and recommendations:

1. Matters to be addressed prior to determination

Nil

2. Matters to be addressed with conditions

a. Works and activities to be carried out in accordance with the EIS

Except as expressly provided by the general terms of approval, works and activities must be carried out in accordance with the Narrabri Underground Mine State 3 Extension Project Environmental Impact Statement.

b. Pollution of waters

Except as expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation of the development, section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in and in connection with the carrying out of the development.

Any variations to the licence are to be negotiated with the EPA.

c. Discharges of wastewater and effluent storage

The capacity of the mine water and "Pit Top Area Runoff" management system must be designed to maintain sufficient storage to achieve no managed overflows of wastewater, brine or effluent from the mine water affected areas of the site including the "Pit Top Area Runoff" water management area and the proposed Southern Mine Water Storage.

Except as expressly provided for by the EPL, the proponent must not discharge from the premises, any mine waters, any waters from the "Pit Top Area Runoff" management systems, or from the Southern Mine Water Storage.

d. Stormwater and sediment control – construction phases

The proponent must prepare an Erosion and Sediment Control Plan (ESCP) for all aspects of the construction phase of the development and must be implemented. Implementation of the scheme must avoid or minimise the impacts of stormwater runoff from and within the premises during construction.

The Stormwater Management Plan should be consistent with the practices and principles contained in *Managing Urban Stormwater – Soils and Construction, Volumes 1 and 2* (Landcom, 2004; DECC, 2008).

e. Stormwater and sediment control – operational phases

The proponent must prepare an Erosion and Sediment Control Plan (ESCP) for all aspects of the operation phase of the development and must be implemented. Implementation of the scheme must avoid or minimise the impacts of stormwater runoff and within the premises during operation.

The Stormwater Management Plan should be consistent with the practices and principles contained in *Managing Urban Stormwater – Soils and Construction, Volumes 1 and 2* (Landcom, 2004; DECC, 2008).

f. Additional mine water pond

The EPA notes that an additional mine water storage is proposed to be constructed south of Longwall 210 (the Southern Mine Water Storage) (Figure 1.3 of Appendix C). This mine water storage is proposed be a "turkey nest" storage used to store mine water dewatered from the southern longwall panels, prior to transfer to the Pit Top Area.

The EPA recommends that the Southern Mine Storage is constructed to achieve a permeability of less than $1x10^{-14}$ m/s over a compacted clay depth of 900 mm or equivalent synthetic liner.

g. Water Management Plan

The proponent must revise the Water Management Plan to incorporate the Stage 3 project and address all proposed mine activities and potential impacts associated with all Stages and subsequently implement the revised Water Management Plan. The revised plan must be produced by a suitably qualified expert(s), in consultation with EPA. The Plan must set out the procedures for investigating, and if necessary, mitigating, any exceedances of the surface or groundwater assessment criteria and responding to any unforeseen impacts of the project.

h. Noise

The EPA considers that the methodology and conclusions for the *Narrabri Underground Mine Stage 3 Extension Project Noise and Blasting Assessment Report* prepared by Wilkinson Murray, dated 25 June 2020, are adequate.

The EPA notes that some receivers considered in the assessment are predicted to be in the Noise Management Zone and the Noise Affectation Zone under the Voluntary Land Acquisition and Mitigation Policy (VLAMP, DPE 2018). Negotiation agreements for mitigation and/or acquisition may be applicable, and noise limits on receivers will not apply where a negotiated agreement with the landholder is in place.

The EPA has not included recommended noise limits for receivers predicted to be subject to significant noise impacts over 5 dB above the noise trigger level as per the VLAMP. It is therefore important that Department of Planning Industry and Environment engage with these receivers and apply the VLAMP. If the affected receivers do not accept the VLAMP offer, then the EPA may not be able to recommend noise conditions where these are 5 dB above the noise trigger levels.

The EPA has attached recommended conditions for noise, please see attachment A.

i. Air

The EPA notes that the project does not increase the current annual production limit of 11 million tonnes per annum with no changes to surface operations or controls being proposed.

The EPA notes that no additional exceedances of particulates are predicted at private receptors. However, the background air quality used in the Air Quality Impact Assessment is based on interpolation of every 6th day HVAS data collected on site in 2014 and may not reflect the variability or maximum 24-hour particulate considerations. Even so, the EPA considers the risk of changes to air quality impacts by the project to be low.

The EPA also notes that dust issues from surface activities are currently being managed through a Pollution Reduction Study in the current Environmental Protection Licence. The EPA considers that existing conditions relating to air are appropriate.

j. Drilling Waste

The proponent is proposing to dispose drilling waste that has been generated on-site, and at other off-site locations into the reject emplacement area. The EPA notes that a sample of onsite drilling waste has been characterised in Appendix N. The receipt of drilling waste from other sites will trigger the NSW waste management framework and will require the Environment Protection licence to be varied to permit this activity. Drilling waste accepted from other sources may carry contaminants that are not present in the drilling products used by site drilling contractors, or in the geology that site drilling activities intersect.

The EPA recommends that drilling waste, that is received from offsite complies with the specifications defined within *The treated drilling mud order 2014*, as published on the EPA website, or any subsequently published order that supersedes this document. Drilling waste that is generated on-site should be characterised periodically as works at the site progress

to ensure that any changes in the risk profile of this material can be managed appropriately by utilising adaptive management principles.

If you have any questions about this request, please contact Daniel Stokes on 4908 6804 or via email at daniel.stokes@epa.nsw.gov.au.

Yours sincerely

LINDSAY FULLOON
Manager Regulatory Operations
Regulatory Operations Regional West

Attachment A – EPA Recommended Conditions for Noise

Please note, the condition numbering reflects condition numbers within an Environment Protection Licence and are for representative purposes only.

Noise Limit Conditions

L6.1 Noise generated at the premises must not exceed the noise limits at the times and locations in the table below. The locations referred to in the table below are indicated by Table 3-1 of Narrabri Underground Mine Stage 3 Extension Project – Noise and Blasting Assessment (Wilkinson Murray, Report 17345 Version F dated 25 June 2020).

Location	Noise Limits in dB(A)			
	Day	Evening	Night	Night
	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	$L_{Aeq(15\ minute)}$	L_{AFmax}
675a – "Ardmona" (Lot 140, DP755470)	40	39	39	52
687a – "Pineview" (Lot 141, DP834252)	40	36	36	52
Any other residential receiver	40	35	35	52

L6.2 For the purposes of condition L6.1:

a) Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.
b) Evening means the period from 6pm to 10pm.
c) Night means the period from 10pm to 7am Monday to Saturday and the period from 10pm to 8am Sunday and public holidays.

L6.3 Noise-enhancing meteorological conditions

a) The noise limits set out in condition L6.1 apply under the following meteorological conditions:

Assessment Period	Meteorological Conditions
Day	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.
Evening	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level.
Night	Stability Categories A, B, C and D with wind speeds up to and including 3m/s at 10m above ground level; or Stability category E and F with wind speeds up to and including 2m/s at 10m above ground level.

b) For those meteorological conditions not referred to in condition L6.3(a), the noise limits that apply are the noise limits in condition L6.1 plus 5dB.

L6.4 For the purposes of condition L6.3:

a) The meteorological conditions are to be determined from meteorological data obtained from the meteorological weather station identified as **EPA monitoring point W1.**

b) Stability category shall be determined using the following method from Fact Sheet D of the *Noise Policy for Industry* (NSW EPA, 2017):
   i. Use of sigma-theta data (section D1.4).

L6.5 To assess compliance:

a) with the $L_{Aeq(15\ minutes)}$ or the L_{Amax} noise limits in condition L6.1 and L6.3, the noise measurement equipment must be located:
   (i) approximately on the property boundary, where any residence is situated 30 metres or less from the property boundary closest to premises; or where applicable,
   (ii) in an area within 30 metres of a residence façade, but not closer than 3 metres where any residence on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable,
   (iii) in an area within 50 metres of the boundary of a National Park or Nature Reserve,
   (iv) at any other location identified in condition L6.1

b) with the $L_{Aeq(15\ minutes)}$ or the L_{Amax} noise limits in condition L6.1 and L6.3, the noise measurement equipment must be located:
   (i) at the reasonably most affected point at a location where there is no residence at the location; or,
   (ii) at the reasonably most affected point within an area at a location prescribed by condition L6.5 (a).

L6.6 A non-compliance of conditions L6.1 and L6.3 will still occur where noise generated from the premises is measured in excess of the noise limit at a point other than the reasonably most affected point at the locations referred to in condition L6.5 (a) or L6.5 (b).

NOTE to L6.5 and L6.6: The reasonably most affected point is a point at a location or within an area at a location experiencing or expected to experience the highest sound pressure level from the premises.

L6.7 For the purpose of determining the noise generated from the premises, the modifying factor corrections in Table C1 in Fact Sheet C of the *Noise Policy for Industry* (NSW EPA, 2017) may be applied, if appropriate, to the noise measurements by the noise monitoring equipment.

L6.8 Noise measurements must not be undertaken where rain or wind speed at microphone level will affect the acquisition of valid measurements.

L6.9 The noise limits specified in conditions L6.1 do not apply to any sensitive receiver location (residence) where a noise agreement is in place between the licensee and the respective land owner(s) in respect to noise impacts and/or noise limits.

Monitoring Conditions

M7.1 The meteorological weather station identified as EPA monitoring point W1 must be maintained so as to be capable of continuously monitoring the parameters specified in condition M7.2.

M7.2 For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Point W1

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	°C	Continuous	1 hour	AM-4
Wind direction	°	Continuous	15 minute	AM-2 & AM-4
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4
Sigma theta	°	Continuous	15 minute	AM-2 & AM-4
Rainfall	mm	Continuous	15 minute	AM-4
Relative humidity	%	Continuous	1 hour	AM-4

M8 Requirement to Monitor Noise

M8.1 Attended noise monitoring must be undertaken in accordance with Condition L6.5 and must:

a) occur quarterly in a reporting period;
b) occur during each day, evening and night period as defined in the *Noise Policy for Industry* for a minimum of:

- 1.5 hours during the day;
- 30 minutes during the evening; and
- 1 hour during the night.

c) occur for three consecutive operating days.

Reporting Conditions

R4 Noise Monitoring Report

A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The assessment must be prepared by a competent person and include:

a) an assessment of compliance with noise limits presented in Condition L6.1 and L6.3; and
b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition L6.1 and L6.3.

Additions to Definition of Terms of the licence

- Noise Policy for Industry - the document entitled "*Noise Policy for Industry*" published by the NSW Environment Protection Authority in October 2017.

- Noise – 'sound pressure levels' for the purposes of conditions L6.1 to L6.9.

  - $L_{Aeq\ (15\ minute)}$ - the value of the A-weighted sound pressure level of a continuous steady sound that, over a 15 minute time interval, has the same mean square sound pressure level as a sound under consideration with a level that varies with time (Australian Standard AS 1055:2018 *Acoustics: description and measurement of environmental noise*).

- L_{AFmax} – the maximum sound pressure level of an event measured with a sound level meter satisfying Australian Standard AS IEC 61672.1-2013 *Electroacoustics - Sound level meters - Part 1: Specifications* set to ‘A’ frequency weighting and fast time weighting.