



DOC19/1105145- 13; EF13/4404

Department of Planning, Infrastructure and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Ms Melanie Hollis

By email: Melanie.Hollis@planning.nsw.gov.au

31 January 2020

Dear Ms Hollis

**Mangoola Coal Continued Operations Project (SSD 8642)
Response to Submissions- Comments from the Environment Protection Authority (EPA)**

I refer to your email to the Environment Protection Authority (EPA) received 19 December 2019, requesting comments in relation to a Response to Submissions (RtS) document and seeking recommended conditions of consent in relation to the Mangoola Coal Continued Operations Project (SSD-8642) (the Project), located in the Muswellbrook local government area.

The Mangoola Coal Mine is an open cut mine approximately 20 kilometres west of Muswellbrook which has operated since 2010. Mangoola Coal Operations Pty Limited (Mangoola) is proposing to expand the mine to the north of the existing operations and extend the mine's life. The project comprises:

- continued open cut mining up to the current 13.5 million tonnes per annum;
- construction of a haul road overpass over Big Flat Creek and Wybong Road connecting the existing and proposed mining areas and realignment of a portion of Wybong Post Office Road;
- changes to overburden management;
- establishment of a water management system to manage sediment laden water runoff, divert runoff from undisturbed areas, provide flood protection from Big Flat Creek and provide reticulation of mine affected water;
- use of the approved (but not yet constructed) water discharge facility to discharge excess water in accordance with the Hunter River Salinity Trading Scheme; and
- establishment of a final landform and rehabilitation.

The EPA requested additional information in relation to the project in its letter dated 28 August 2019 (Doc19/604112-31). The EPA's comments related in particular to noise and air quality impacts, and the appropriate treatment and management of water quality.

The RtS provided additional information on the matters raised in the letter of 28 August 2019, and the EPA is now able to recommend conditions of approval for the proposed development.

Water Quality Impacts

Figure 15 of the Surface Water Assessment (Appendix 11 of the EIS) indicates mine water will be pumped from the Pit Water Dam to the Raw Water Dam which may overflow to Sandy Creek via farm dams. This is inconsistent with the principles of the Hunter River Salinity Trading Scheme which prohibits the discharge of saline water except under the rules of the Scheme. The EPA has recommended a condition of approval to ensure that the Scheme's principles are upheld.

Noise

The EPA has recommended a condition of approval that requires noise monitoring at all impacted residences. However, the EPA would be willing to consider an alternative condition that requires monitoring only at representative locations based on Noise Assessment Groups, if the proponent can nominate appropriate monitoring locations.

The EPA's Recommended Conditions are provided at Attachment A to this letter.

If you have any questions about this matter, please contact Genevieve Lorang on (02) 4908 6869 or by email to hunter.region@epa.nsw.gov.au .

Yours sincerely

MITCHELL BENNETT
Head Strategic Operations Unit - Hunter
Environment Protection Authority

Encl: Attachment A- Recommended Conditions

EPA Recommended Conditions - Mangoola Coal Continued Operations Project

Limit Conditions

Water Quality

- L1.1** The Proponent must comply with section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters, except as permitted by a condition of an Environment Protection Licence.
- L1.2** The proponent must not transfer mine water from the Pit Water Dam to the Raw Water Dam. Saline water must only be discharged under the provisions of the Hunter River Salinity Trading Scheme.

Noise

- 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 in the Mangoola Coal Continued Operations Project Environmental Impact Statement prepared by Umwelt (Australia) Pty Limited dated July 2019 (Report No. 4004/R13/FINAL).

Location	Noise Limits in dB(A)			
	Day	Evening	Night	Night
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{AFmax}
144, 170, 171 & 176.	40	40	40	52
263, 109A, 109B, 109C, 109D, 109E, 109F & 134A.	40	39	39	52
25, 128, 154, 193, 261, 125A & 182B.	40	38	38	52
54, 79, 114, 141, 151, 192, 206, 321, 125C, 182A, 241A, 241C, 190 & 157.	40	37	37	52
165, 177, 106B, 104, 166, 178, 251, 253, 260, 112B, 183C, 184A, 147, 112A, 112C, 240 & 241B.	40	36	36	52
All other residential locations	40	35	35	52

- L6.2** For the purposes of condition L6.1:
- Day means the period from 7am to 6pm Monday to Saturday and the period from 8am to 6pm Sunday and public holidays.
 - Evening means the period from 6pm to 10pm.
 - 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 Point 5 of Environment Protection Licence 12894.
- 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) or an alternative method agreed to by the NSW Environment Protection Authority.

L6.5 To assess compliance:

- a) with the $L_{Aeq(15\text{ minutes})}$ 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 $L_{Aeq(15\text{ minutes})}$ 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).

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) should 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.

Blasting

- L7.1** The airblast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L7.2** The airblast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L7.3** Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L7.4** Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.
- L7.5** Blasting at the premises may only take place between 9:00am-5:00pm Monday to Saturday. Blasting is not permitted on Sundays or public holidays.
- L7.6** The airblast overpressure and ground vibration levels in conditions L7.1 to L7.4 do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to airblast overpressure and ground vibration levels, between the licensee and land owner.
- L7.7** Blasting at the premises is limited to 1 blast on each day on which blasting is permitted.

Monitoring Conditions

- M7.1** The meteorological weather station identified as EPA monitoring point 5 in Environment Protection Licence 12894 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 5 as listed Environment Protection Licence 12894

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

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

- a) occur monthly in a reporting period;
- b) occur during each night period as defined in the *Noise Policy for Industry* for a minimum of 1 hour during the night; and
- c) occur for three consecutive operating days.

M9 Blast Monitoring

To determine compliance with Conditions L7.1 to L7.4:

- (a) Airblast overpressure and ground vibration levels must be measured and electronically recorded in accordance with the ANZECC guidelines for all production blasts carried out in or on the premises; and
- (b) The written record must include:
 - i) the time and date of each blast;
 - ii) the station(s) at which the noise was measured;
 - iii) the ground vibration for each blast;
 - iv) the airblast overpressure for each blast;
 - v) evidence that during the past 12 month period, a calibration check had been carried out on each blast monitor to ensure accuracy of the reported data; and
 - vi) the waveform for the ground vibration and overpressure for each blast that exceeds a ground vibration of 5mm/sec (peak particle velocity) or an airblast overpressure of 115dB(L).
- (c) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard 2187.2 of 2006.

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 monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant 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.

Definitions

- 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 L6.8.

- $L_{Aeq(15\text{ minute})}$ - 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 (AS1055.1-1997).
- L_{AFmax} – the maximum sound pressure level of an event measured with a sound level meter satisfying AS IEC 61672.1-2004 set to ‘A’ frequency weighting and fast time weighting.

Operating Conditions

- O1.** All activities must be carried out in a competent manner. This includes:
- the processing, handling, movement and storage of materials and substances used to carry out the activity; and
 - the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.
- O2.** All plant and equipment installed at the premises or used in connection with the licensed activity:
- must be maintained in a proper and efficient condition; and
 - must be operated in a proper and efficient manner.

Incident Management

- O3.** The Proponent must have in place adequate procedures including notification requirements to the Appropriate Regulatory Authority and other relevant authorities for incidents that cause, or have the potential to cause, material harm to the environment (Part 5.7 of the POEO Act).

Air Quality

- O4.** The premises must be maintained in a condition which prevents or minimises the emission of air impurities, including dust, from the premises.
- O5.** All operations and activities occurring at the premises must be carried out in a manner that prevents or minimises the emission of air impurities, including dust, from the premises.
- O6.** Trucks entering and leaving the premises that are carrying loads of materials that may generate air impurities, including dust, must have their loads covered at all times, except during loading and unloading.
- O7.** The Proponent must not cause or permit the emission of offensive odours beyond the boundary of the premises.
- O8.** Prior to commencing operation, the Proponent must provide the EPA with written confirmation that all equipment to be used on the premises will meet the relevant concentration standards prescribed in the relevant schedule of the Protection of the Environment Operations (Clean Air) Regulation 2010.

Waste Management

- O9.** The Proponent must, as far as possible, follow the waste hierarchy principles contained in the *Waste Avoidance and Resource Recovery Act 2001* when dealing with any waste generated at the premises.
- O10.** The Proponent must assess and classify any waste generated at the premises in accordance with the “Waste Classification Guidelines – Part 1: Classifying waste” (EPA, 2014) and manage this waste in a lawful manner.

- O11. The Proponent must not cause, permit or allow any waste to be received at the premises, except that waste which complies with a Resource Recovery Order and Exemption issued under the *Protection of the Environment Operations (Waste) Regulation 2014* and is used for the purpose(s) stipulated by each Resource Recovery Order and Exemption.
- O12. Waste generated by all activities associated with works and operation of the project must only be:
- exported to a licensed facility for the storage, treatment, processing, reprocessing or disposal, or to any other place that can lawfully accept such waste, or
 - reused in accordance with a Resource Recovery Exemption and Order.
- O13. The Proponent must maintain a waste register that tracks any waste received at or transported from the premises that clearly identifies each entity and vehicle involved in the waste transaction and the premises from which or to which the waste originated or was transported to.
- O14. The Proponent must retain all waste related records in a legible form, or in a form that can readily be reduced to a legible form, for at least 4 years after the record was made.

Chemical Storage

- O15. All above ground tanks and containers containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place. Bunds must:
- have walls and floors constructed of impervious materials
 - be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
 - have floors graded to a collection sump; and
 - not have a drain valve incorporated in the bund structure; or
 - be constructed and operated in a manner that achieves the same environmental outcome.