



Your reference :
Our reference : EF13/2524; DOC14/246388
Contact : Mr Allan Adams; (02) 6332 7610

Mr Thomas Watt
Planning Officer
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

31 October 2014

Dear Mr Watt

**AIRLY MINE EXTENSION PROJECT – STATE SIGNIFICANT DEVELOPMENT 5581
ENVIRONMENTAL IMPACT STATEMENT – EPA ASSESSMENT**

I refer to the Environmental Impact Statement (EIS) for the Airly Mine Extension Project (SSD 5581) provided to the Environment Protection Authority (EPA) on the 22 September 2014 requesting comments on the development application and advice on recommended conditions of approval by Friday 31 October 2014.

The EPA has reviewed the EIS and has attached comments and conditions of approval in Attachment 1; the EPA recommends that the conditions be incorporated into the consent. The Airly Mine site is currently licensed (EPL 12374) by the EPA under the *Protection of the Environment Operations Act 1997*; If the project is approved the proponent will need to submit a Licence Variation application to ensure the licence incorporates the relevant conditions of the planning approval.

Should you have any further enquiries in relation to this matter please contact Mr Allan Adams at the Central West (Bathurst) Office of the EPA by telephoning (02) 6332 7610.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Darryl Clift'.

DARRYL CLIFT
Head Central West Unit
Environment Protection Authority

Attachment A: EPA comments and recommended conditions of project approval for the Airly Mine Extension Project.

Attachment A Comments and recommended conditions of Project Approval

Noise and Vibration Impact Assessment

The review of the Noise and Vibration Impact Assessment (NVIA) by the EPA has determined that the assessment has been generally undertaken in accordance with the Director General's Requirements (DGRs), however, the following issues should be addressed:

- a) F class inversions and source to receiver winds were modelled independently, but not together, to predict a maximum $L_{Aeq(15min)}$ at receivers of 35 dBA. Appendix D of the *New South Wales Industrial Noise Policy* (INP, EPA 2000) indicates that adding an inversion to a source to receiver wind prediction may increase the predicted level by 2-3 dB (over a distance of 400 – 600m), which would result in a predicted $L_{Aeq(15min)}$ up to 38 dB (3 dBA above the Project Specific Noise Level [PSNL]). **Predictions should therefore be provided considering both inversion conditions and source to receiver winds in combination;**
- b) The EIS stated that the exploration program will be used "for the ongoing refinement of the site's existing geological model which then allows detailed mine planning" (page 86), indicating that it is not an exploration or construction activity but part of the operation of the project. Each drilling campaign was estimated to last less than three weeks in the EIS, which was used as a justification for assessing it under the *Interim Construction Noise Guideline* (ICNG, DECC 2009). **The proposed drilling appears to be part of the ongoing operation of the mine, for an extended period (up to the life of the project), and the ICNG does not apply to mining. The proposed drilling should therefore be assessed under the INP;**
- c) The NVIA predicted that the project would increase $L_{Aeq(night)}$ rail noise levels, which are already above criteria from the *Rail Infrastructure Noise Guideline* (EPA 2013), by 0.6 dB. While this increase is likely to be imperceptible, **existing noise levels above criteria will be exacerbated by the project and the EPA recommends that Department of Planning and Environment (DPE) consider requiring the proponent to use only best practise rolling stock for rail transport resulting from the proposal (including only locomotives which have obtained EPA approval to operate on the NSW rail network under Condition L2 of EPL No. 3142, 12208 or 13421, or in accordance with the former *Noise Control Act 1975*);**
- d) Some of the Sound Power Levels (SWL) given in the NVIA appear to be low, for example the Coal Handling and Preparation Plant (CHPP) was given a SWL of 94 dBA internal, and four locomotives (notch two) were given a combined SWL of 111 dBA. No tonal or low frequency modifying factor adjustments were considered applicable, but low frequency modifying factor adjustments are often required for mining projects, especially CHPPs. The NVIA stated that the two SWL were measured at Newstan Colliery, **the EPA requests that the modelled SWLs are justified by comparing the measured CHPP and locomotives with the types in use at Airly Mine or proposed for the project;**
- e) The statement of commitments in the EIS commits to a Noise Management Plan (NMP) for the project, without specifying what will be addressed in the plan. **Any project approval issued should include requirements to be addressed in a NMP for construction, operation and drilling noise;**
- f) L_{Amax} levels were used to predict impacts on sleep disturbance. This is acceptable, and **care should be taken to specify appropriate sleep disturbance limits in any project approval given (L_{Amax} limits should be provided rather than $L_{A1(1min)}$);**

- g) Blast overpressure and vibration was not assessed in the EIS or NVIA. **If any blasting is proposed for the project, it should be assessed against ANZEC (1990) guidelines;** and
- h) Impacts on passive recreation areas in the Capertee National Park and Gardens of Stone National Park do not appear to have been assessed. However, compliance with criteria at these locations is indicated by compliance with residential criteria at nearby receivers, for example receiver R1. **Any project approval, if issued, should contain noise limits for passive recreation areas in the National Parks.**

EPA recommended conditions of Project Approval:

Limit Conditions

Noise generated from the premises must not exceed the limits in the table below. The locations (easting-northing) referred to in the table below are presented in the document *Environmental Impact Statement – Airly Mine Extension Project – SSD 5581, P. 16, Table 3 – Nearest Sensitive Receptors (R1-8 Residential, R17-18 Passive Recreation) in the Noise Impact Assessment – Appendix K of Volume 2: Part 4.*

Receptor ID	Noise Limits db(A)			
	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Amax}
R1-R8 Residential	35	35	35	52

Note: These locations indicate sensitive receivers that are predicted to receive noise levels at or below the project specific noise levels.

For the purposes of the noise limit table provided:

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.
- Evening is defined as the period 6pm to 10pm.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.

The noise limits provided above apply under all meteorological conditions except for the following:

- (a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- (b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- (c) Stability category G temperature inversion conditions.

For the purposes of (a), (b) and (c) above:

- (d) Data recorded by the proponents meteorological station must be used to determine meteorological conditions; and
- (e) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.

To determine compliance with the $L_{Aeq(15 \text{ minute})}$ noise limits, the noise measurement equipment must be located at the most affected point:

- i. approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises;
- ii. or within 30 metres of a dwelling façade, but not closer than 3 m, where any dwelling on the property is situated is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
- iii. where there is no dwelling, within approximately 50 metres of the property boundary of a National Park or a Nature Reserve.

To determine compliance with the L_{Amax} noise limits, the noise measurement equipment must be located within 1 metre of a dwelling façade.

A non-compliance with the noise limits will still occur where noise generated from the premises in excess of the specified noise limit is measured:

- i. at a location other than an area prescribed above; and/or
- ii. at a point other than the most affected point at a location.

For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Weather Monitoring Requirements

A meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in the table provided.

The licensee must monitor the parameters specified in the table (Column 1) using the sampling method, units of measure, averaging period, and sample at the frequency specified in the other columns for each parameter.

Parameter	Units of measure	Frequency	Averaging period	Sampling method
Wind direction	Degrees	Continuous	15 Minute	AM-2 & AM-4
Wind speed	Metres per second	Continuous	15 Minute	AM-2 & AM-4
Sigma theta	Degrees	Continuous	15 Minute	AM-2 & AM-4
Rainfall	Millimetres	Continuous	15 Minute	AM-4
Air temperature	Degrees celsius	Continuous	1 Hour	AM-4
Relative humidity	Percent	Continuous	1 Hour	AM-4

Air Quality Impact Assessment

The review of the Air Quality Impact Assessment (AQIA) by the EPA has determined that the assessment has been generally undertaken in accordance with the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW*.

EPA recommended conditions of Project Approval:

The EPA is satisfied that the air emissions are unlikely to exceed the EPA impact assessment criteria at the identified sensitive receptors, providing the project activities are undertaken in line with the four distinct scenarios utilised for the dispersion modelling.

Surface Water Impact Assessment

The EPA notes in the Summary of the Environmental Impacts – Overview of Key Findings on page IV of Volume 1: Report of the EIS, the following is stated in relation to increased discharges through the existing LDP001 "Airly Creek is predicted to experience a maximum cumulative increase of 14.5% in flow".

However, on page 3 in the Executive Summary – Appendix F of the Surface Water Impact Assessment reference is made to a change in waterway flow of 1% in Airly Creek. **The EPA is therefore seeking clarification of the likely increase to flow in Airly Creek due to mine activities related to LDP001.**

It is understood the water storage (basin) below the Reject Emplacement Area (REA) which will be the location of a proposed discharge point meets the recommended minimum design criteria for Type D sediment basins for mines and quarries (as per "Managing urban stormwater: soils and construction, Volume @E, mines and quarries" DECC 2008).

EPA recommended conditions of Project Approval:

For each monitoring/discharge point or utilisation area specified in the table provided (by a point number/description), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

Point: Licensed Discharge Point (LDP) for water from the Reject Emplacement Area (REA).

Pollutant	Units of Measure	100 percentile concentrations limit
pH	pH	6.5–9.0
TSS	milligrams per litre	50 mg/L
Oil and grease	milligrams per litre	10 mg/L

The concentrations limits stipulated in the table above are deemed not to apply when the discharge from the stormwater control structure (sediment basin) occurs solely as a result of rainfall measured at the premise which exceeds the design storage capacity of the sediment basin.

The stormwater control structure (sediment basin) identified above must be drained or pumped out following rainfall as necessary (in accordance with the discharge concentration limits) to maintain the basins design storage capacity.

