



ENVIRONMENT PROTECTION AUTHORITY

Our reference:
Contact:

SF13/2945 DOC13/48077
Brad Tanswell 02 6883 5367

Mr Howard Reed
NSW Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Stephen O'Donoghue

Dear Mr Reed,

Thank you for the opportunity to comment on the documentation received by the Environment Protection Authority (EPA) on 14 August 2013 provided as additional information to the Submission Report (SR) associated with the proposed Cobbora Coal Mine (ref 10_0001).

Additionally I refer to:

- The EPA's submission on the exhibited Environmental Assessment (EA) dated 16 November 2012; and
- The EPA's initial response letter on the SR dated 8 March 2013.

The EPA has determined that it is still able to support the proposal, subject to the Department of Planning and Infrastructure (DoPI) including a number of revised conditions of approval. The recommended conditions and justification of the recommended conditions are listed in **Attachment A**.

The key revised conditions relate to:

1. Measures to protect surface water and groundwater from pollution;
2. Measures to protect local air quality; and
3. Measures to protect local noise amenity.

These issues are addressed in further detail in Attachment A. It should be noted that incorporation of the EPA's proposed conditions into DoPI's Determination report are important for the EPA's ongoing support of the proposal.

It is expected that the EPA will be given an opportunity to review the draft Director-General's Environmental Assessment report for this proposal prior to finalisation to ensure conditions have been included to the satisfaction of the EPA.

The EPA notes that the proposal will require an Environment Protection Licence (EPL) pursuant to the *Protection of the Environment Operations Act 1997* to commence construction activities and to operate. The proponent will need to make a separate application to the EPA to obtain this licence once development project approval is granted.

The EPA would like to advise prospective proponents of the mine that every Protection of the Environment Operations Act 1997 (POEO) licence will contain a number of mandatory conditions regarding monitoring and discharge requirements and limits for various environmental media (e.g. air, water, noise etc). Where these requirements have not been addressed/agreed to prior to issue of consent, this information must be provided prior to or with an application for an EPL for the EPA's consideration and must be agreed to before the EPA can issue an EPL.

Should you have any queries regarding the EPA's submission, please contact myself at the Dubbo Office of the EPA on (02) 6883 5367.

Yours sincerely



10/09/13

BRAD TANSWELL
A/Head Far West Operations
Environment Protection Authority NSW

Encl- Attachment A – Recommended Conditions of Approval.

ATTACHMENT A

Recommended Conditions of Approval

WATER

The EPA recommends that DoPI incorporate the follow conditions of consent for water quality impacts.

Surface Water Discharges

The proponent shall ensure that all surface water discharges from the site comply with the discharge limits set for the project in any Environment Protection Licence.

The following interim concentration limits will apply to sediment basin discharges to surface waters from the site and these limits shall be revised through a pollution reduction program set by the EPA after 2 years from the commencement of operations. Additional limits may be included on the environment protection licence based on sediment basin monitoring conducted in accordance with the Site Water Management Plan.

Pollutant	Units of Measure	50 percentile concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre		50
Total dissolved solids	milligrams per litre	350	600
pH	pH		6.5 – 8.5
Aluminium	milligrams per litre		0.5
Iron	milligrams per litre		1.5
Manganese	milligrams per litre		2.0

Erosion and Sediment control Plan

The proponent shall prepare and implement an Erosion and Sediment Control Plan (ESCP) for the project to the satisfaction of the Director General and in consultation with the EPA prior to commencement of construction of surface facilities or mining operations. The ESCP shall be prepared in accordance with:

- (a) Managing Urban Stormwater: Soils and Construction Volume 1;
- (b) Managing Urban Stormwater: Soil and Construction: Volume 2E Mines and Quarries (DECC, 2008);
- (c) Managing Urban Stormwater: Soils and Construction: Volume 2C Unsealed Roads (DECC, 2008) for erosion and sediment control of on-site roads and waterway crossings (guidance is also provided in the field guide Erosion and sediment control on unsealed roads available on the Office of Environment and Heritage stormwater website); and
- (d) Managing Urban Stormwater: Soils and Construction: Volume 2A Installation of Services (DECC 2008) for erosion and sediment control during the installation of the water pipeline and any other reticulated services.

Water Management Plan

The proponent shall prepare and implement a Water Management Plan (WMP) for the project to the satisfaction of the Director General and be provided to the EPA for review and comment prior to commencement of construction of surface facilities or mining operations. The WMP must be prepared in consultation with the EPA and NOW and include:

- (e) measures to ensure that pit water, coal washery wastewater, groundwater seepage and process water are retained within the pit, infrastructure and process water systems (as committed to in the EA)
- (f) measures to ensure that water from overburden emplacements, topsoil stockpiles and other disturbed areas are directed to sediment basins designed, constructed and operated in accordance with:
 - Managing Urban Stormwater: Soils and Construction Volume 1;
 - Managing Urban Stormwater: Soil and Construction: Volume 2E Mines and Quarries (DECC, 2008);
- (g) sediment basin salinity, acidity and metal trigger values that prompt investigations of the causes of elevated salinity, acid or metal levels and the implementation of mitigation measures;
- (h) a surface and groundwater quality monitoring program that sets out:
 - the duration (pre, during, and post mining), sites to be sampled,
 - frequency of sampling
 - the parameters to be measured, for each water system including for water reuse in land application, management of the process water, groundwater and inflow to sediment basins from stockpiles
 - monitoring of discharges from the sediment basins and ambient monitoring for the purpose of confirming or amending discharge limits
 - monitoring for the potential for seepage from contaminated water storages and tailings storage facilities.
 - a program to monitor potentially acid-forming waste rock and any leachate generated, including appropriately designed detection and response systems for acid generation (covering monitoring methods, trigger levels and proposed management actions);
- (i) trigger values for investigation derived from assessment against WQOs determined using either ANZECC (2000) default trigger values or site specific WQOs determined in accordance with ANZECC (2000) and DEC (2006) procedures;
- (j) mitigation actions when trigger values are exceeded;
- (k) a framework for post-mining monitoring, with a commitment for a detailed post mining monitoring program to be prepared two years prior to the cessation of mining operations
- (l) a program for reporting on the effectiveness of the water management systems
- (m) a Groundwater Management Plan that includes Groundwater Reuse Procedures.

Facilities must be in place to transfer water from sediment basins to mine water dams in the event that mine water does not comply with the discharge criteria

Water quality monitoring of sedimentation basins will initially include:

- total suspended solids (TSS), total dissolved solids, turbidity (measured in nephelometric turbidity units (NTU)), oil and grease, pH; a suite of metals, electrical conductivity and sulfate; and as required by an EPL.

Groundwater reused for land application (rehabilitation and dust suppression) and water that may be stored within the mine workings and basins that could affect local groundwaters shall also be monitored for:

- a full suite of metals
- volatile organics
- total petroleum hydrocarbons (C6 - C9 and C10 - C36)
- alkalinity, hardness, pH, conductivity/salinity, major ions (including: sodium, chloride, bicarbonate, potassium, magnesium, carbonate, fluoride, hydroxide, sulfate, calcium)

The following indicators shall be monitored after 12 months of mining operations for presence or absence:

- semi-volatile organic compounds including polycyclic aromatic hydrocarbons and phenols
- cyanide
- radionuclides.

This information is also needed to inform licence conditions.

Waste Rock Emplacement

The Proponent shall prepare and implement a Waste Rock Management Plan prior to commencement of mining operations and to the satisfaction of the Director-General. The plan must:

- (n) be prepared in consultation with the EPA and NOW;
- (o) include a detailed description of the procedures to be implemented to monitor and manage potential acid forming material and potential for generation of metals or other pollutants from any material in waste rock emplacements;
- (p) ensure effective isolation of potential acid forming material in rock dumps;
- (q) include procedures for appropriate testing of potentially acid forming waste rock prior to it being brought to the surface;
- (r) include procedures for prioritising the relocation of potential acid forming material to a suitable underground locations prior to oxidation;
- (s) include procedures to ensure that material relocated underground does not, to the extent reasonable and feasible, further oxidise or cause impact to groundwater;
- (t) notwithstanding (f) above, trigger levels for any material that has oxidised to the extent that it cannot be placed underground without impacting groundwater quality and procedures for adequate capping and sealing of such material at the surface;
- (u) detail proposed neutralising options to be implemented for oxidising material stored or encapsulated aboveground; and

- (v) where there is likely to be an extended time between placement of potential acid forming material underground, details of proposed methods to prevent oxidation of the material underground or to otherwise manage acid drainage to prevent impacts on groundwater;
- (w) include contingencies for management of acid forming material should this present a larger issue than first expected.

This information is also needed to inform licence conditions.

Contaminated water storages

All contaminated water storages must have a basal or impermeable liner with an equivalent permeability of 1×10^{-9} metres per second over a minimum thickness of 900mm or other liner approved by the EPA.

The licensee must obtain and retain documentation from an appropriately qualified person to demonstrate the liners for all structures referred to above meet the permeability requirements specified above.

The dam liner assessment shall be conducted in consultation with the EPA and to the satisfaction of the Director General prior to the construction of contaminated water storages.

Tailings storage facilities

All out-of-pit tailings storage facilities (TSFs) must have a basal or impermeable liner with an equivalent permeability of 1×10^{-9} metres per second over a minimum thickness of 900mm or other liner approved by the EPA.

The licensee must obtain and retain documentation from an appropriately qualified person to demonstrate the liners for all structures referred to above meet the permeability requirements specified above.

The out-of-pit TSFs liner assessment shall be conducted in consultation with the EPA and to the satisfaction of the Director General prior to the construction of the out-of-pit TSFs.

All in-pit TSFs shall be assessed for the potential for seepage to contaminate groundwater to be undertaken by a suitably qualified. The assessment shall be conducted in consultation with the EPA and to the satisfaction of the Director General prior to the construction of the in-pit TSFs. (Related to Key commitment 12).

Site contamination

Contaminated site assessments must be undertaken for both "Yallambie" and "Danabar" piggeries in accordance with guidelines such as the *National Environment Protection (Assessment of Site Contamination) Measure 1999* and other relevant EPA Guidelines to inform management decisions.

These contaminated site assessments must be completed to the satisfaction of the Department of Planning and in consultation with the EPA prior to disturbing these sites or within two years of the start of operations.

AIR

The EPA recommends that DoPI incorporate the follow conditions of consent for air quality impacts.

Coal Mine Particulate Matter Control Best Practice

The proponent must conduct a site specific Best Management Practice (BMP) determination to identify the most practicable means to reduce particle emissions.

The proponent must prepare a report which includes, but is not necessarily limited to, the following:

- identification, quantification and justification of best practice measures that could be used to minimise particle emissions;
- evaluation of the practicability of implementing these best practice measures; and
- a proposed timeframe for implementing all practicable best practice measures.

In preparing the report, the proponent must utilise the document entitled *Coal Mine Particulate Matter Control Best Practice – Site Specific Determination Guideline – August 2011*

(<http://www.environment.nsw.gov.au/resources/air/20110813coalmineparticulate.pdf>)

All cost related information is to be included as Appendix 1 of the Report required by condition 1.2 above.

The report required by condition 1.2 must be submitted by the proponent to the Environment Protection Authority's Regional Manager Dubbo, at PO Box 2111 Dubbo NSW 2830 prior to an application for a new or varied environment protection licence for the project. This information is also needed to inform licence conditions.

The report required by condition 1.2 above, except for cost related information contained in Appendix 1 of the Report, must be made publicly available by the proponent on the proponent's website by **<date>**.

Air Quality Management Plan

Based on the information contained in the site specific BMP, refer to condition 1 above, and the project EA, the proponent must develop and implement an air quality management plan for the project. As a minimum the air quality management plan must include the following information for each emission source:

- *Key performance indicator(s);*
- *Monitoring method;*
- *Location, frequency and duration of monitoring;*
- *Record keeping;*

- *Response mechanisms; and*
- *Compliance reporting.*

It is noted that following the receipt and review of the BMP report and Air Quality Management Plan required in the recommended Conditions of Approval, the EPA will use the site specific data as a basis for establishing the Environment Protection Licence (EPL) conditions for the project.

HAZARDOUS CHEMICAL AND WASTE MANAGEMENT

The EPA recommends that the Department of Planning and Infrastructure incorporate the following conditions of consent in relation to hazardous chemical and waste management following the proponent's commitment to meeting these requirements as outlined in the Response to Submissions report.

Dangerous Goods must be transported in accordance with the requirements of the Australian Code for the Transport of Dangerous Goods by Road and Rail- Current Edition.

All hydrocarbon and chemical products must be stored within a bunded area complying with the relevant Australian Standard

Toxic Chemicals must be stored in accordance with the requirements of AS/NZS 4452- The Storage and Handling of Toxic Substances.

All wastes onsite must be classified as waste in accordance with the document Waste Classification Guidelines Part 1: Classifying Waste (DECCW 2009) and subsequently disposed at landfill facilities that can lawfully accept the waste following classification.

LIGHTING IMPACTS

The EPA acknowledges the proponents commitment to engage a suitably qualified expert to prepare a detailed light management plan for the project. In light of this the EPA recommends that the Department of Planning and Infrastructure incorporate the following condition of consent.

The proponent must engage an appropriately qualified expert to prepare and implement a light management plan for all aspects of the project.

NOISE

The EPA provides the following comments in relation to CHC's proposed amendments to conditions of consent and recommends that DoPI incorporate the follow revised conditions of consent for noise impacts.

CHC states that the noise limits should only apply at non-mine owned residences. The EPA accepts this and suggests that the following wording be included in a new Condition L6.11:

The EPA recommends that DoPI incorporate the follow condition of consent for noise impacts.

L6.11 The noise levels in conditions L6.1 to L6.4 do not apply at noise sensitive locations that are owned by the licensee or subject to a private agreement, relating to noise levels, between the licensee and land owner.

CHC also states that the appropriate criteria for residential receivers along the proposed rail spur are to be drawn from Appendix 3 of the NSW EPA's Rail Infrastructure Noise Guideline (RING). The EPA agrees.

CHC considers that the noise criterion for national parks should apply at the boundary. The EPA recommends that the wording for Condition L6.3 should remain unchanged, and the measurement point for a passive recreation area such as a national park should be at the most affected point within 50 metres of the boundary of a National Park or Nature Reserve, as written in the INP.

CHC considers the wording on Condition L6.4 to be contradictory to that in Condition L6.3. This condition has been included to facilitate measurement at alternative monitoring points when direct measurement at a receiver is inappropriate or impractical. This is a standard inclusion in EPA's licence Conditions.

CHC's response to Condition L6.8 relating to heavy vehicle movements to and from the site is provided in Item 15 of Table 2.1 of the Response to the PAC Review. CHC suggests a definition of the condition that only includes incoming deliveries of goods or materials to the mine. The EPA recommends that this condition be amended to also include heavy vehicles leaving the site. This is provided for in the initial recommended conditions provided to DoPI.

Proposed out of hours construction

CHC disagrees with the scheduling of construction works only during the standard hours identified in the Interim Construction Noise Guideline. It proposes extended construction hours as standard and provides an assessment of the impact of these extended hours works. The EPA has reviewed the assessment and detailed comments are provided below.

CHC has assessed the likely impacts of construction activities proposed to take place outside the standard construction hours in the Interim Construction Noise Guideline (ICNG). The assessment proposes construction to be carried out on a seven days per week basis, with up to 12 hours per day. The exact proposed hours throughout the week are not explicitly stated, however works are proposed for 7am to 6pm on Sundays and Public Holidays. Night works are proposed outside the 7am to 6pm standard hours for construction in the ICNG.

The assessment in Section 1.2 states that the extended standard hours will allow for works to be expedited and so reduce the overall duration of construction noise, which it considers a positive for the community.

EPA usually only agrees to construction works outside standard ICNG hours where the construction requires closure of public roads or rail (a road or rail possession) in order to minimise disruption to commuter traffic. The assessment must provide clear evidence of community consultation and support for these extended standard construction hours before it could be supported by EPA.

The EPA notes that from Table 1.1, the proposed out of hours (night-time) works are predicted to take place over 3 weeks to 39 weeks. These works are predicted to result in exceedances of up to 23 dB above the night-time criterion of 35 dBA at a number of receivers (see Section 3.2.1).

To address the above exceedances, a number of general management and mitigation measures are proposed in Section 4.3 and Table 4.1. The EPA consider that as construction noise impacts are very likely, further information on specific measures to be applied to individual items of plant and equipment should be provided in the assessment, together with predictions post-mitigation to show their likely effectiveness in reducing construction noise impacts at sensitive receivers.

Further detail and justification should be provided as to why construction of the Coal Handling and Preparation Plant and the Mine Infrastructure Area require construction outside the standard ICNG hours.

Table 3.1 provides sound power levels (SWLs) for items of plant and equipment. Some items, such as the dozers and excavators, have SWLs that appear inconsistent with their capacities. For example, a 20t excavator has a SWL of 104 dBA, a 25t unit 99 dBA and a 40t unit 107 dBA. The SWLs in Table 3.1 should be reviewed and confirmed as being correct.

Table 3.12 gives the measured L_{Amax} noise level of a dump truck as 125 dBA, and the subsequent text states that the SWL of an unmitigated dump truck is also 125 dBA. These values should be reviewed and confirmed or amended as necessary.

Table 3.14 incorrectly assesses the noise level from construction traffic only against the relevant road traffic noise criteria for a local road. The existing level of (non-project) traffic noise on Suzanne Road should be provided in this table, and then the increased traffic noise level due to construction should be determined and assessed against the criteria.

Noise monitoring carried out for the construction works should be clearly linked to management and mitigation measures in the event of identified exceedances of construction noise levels. This should be included in the summary of key commitments for the project.

Section 5.1 mentions DECCW's Environmental Noise Control Manual. This document is no longer considered current policy and is not supported. Reference to it should be removed from the assessment.

In light of the comments outlined above the EPA recommends that DoPI incorporate the following additions to the conditions of consent for noise impacts.

Construction is restricted to standard hours of 7am to 6pm Monday to Friday and 8am to 1pm Saturday except for:

- Works that comply with the relevant Noise Management Level (NML);
- Delivery of materials outside of approved hours as required by Police or other relevant authorities for safety reasons;
- Emergencies which are defined as where it is required to avoid the loss of lives, property and/or to prevent environmental harm;
- Works that can only take place during a road or rail possession outside of standard construction hours.

Noise impacts exceeding the relevant NML during standard construction hours and during road or rail possessions outside of standard construction hours are to be managed in accordance with an appropriate Construction Noise Management Strategy.

The proponent may still seek an extension of construction outside of standard hours by varying the application prior to any approval being issued, or if approval is issued by modifying the consent or when applying for an Environment Protection Licence, supported by the additional information identified by the EPA in its letter dated 10 September 2013.

The EPA further recommends that DoPI incorporate the following conditions of consent for noise impacts (as recommended previously).

Limit Conditions

L6.1 Noise generated at the premises must not exceed the noise limits in the table below.

Locality	NOISE LIMITS dB(A)			
	Day	Evening	Night	
	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)

1001-1172, 1179, 1185-3020, 3029, 3044-3052, 3062-3086, 3218-3236, 5003-5022, 5024, 5025	35	35	35	45
1178, 3041	36	36	36	48
3021, 3022, 3043	39	39	39	50
3024, 5023	38	38	38	49
3035	37	37	37	46

L6.2 For the purpose of condition L6.1;

- 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.

L6.3 To determine compliance:

a) with the $L_{eq(15 \text{ minute})}$ noise limits in condition L6.1, the noise measurement equipment must be located:

- approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
- within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
- within approximately 50 metres of the boundary of a National Park or a Nature Reserve.

b) with the $L_{A1(1 \text{ minute})}$ noise limits in condition L6.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.

c) with the noise limits in condition L6.1, the noise measurement equipment must be located:

- at the most affected point at a location where there is no dwelling at the location; or
- at the most affected point within an area at a location prescribed by conditions L6.3(a) or L6.3(b).

L6.4 A non-compliance of condition L6.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by conditions L6.3(a) and L6.3(b); and/or
- at a point other than the most affected point at a location.

L6.5 The noise limits set out in condition L6.1 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.

L6.6 For the purposes of condition L6.5:

- a) Data recorded by a meteorological station to be located onsite must be used to determine meteorological conditions; and
- b) 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.

L6.7 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.

L6.8 Heavy vehicle movements to and from the site are restricted to between the hours of 7am to 6pm Monday to Friday and 8am to 1pm Saturday and at no time on Sundays and public holidays.

Construction Noise

L6.9 All construction work at the premises must be conducted between 7am and 6pm Monday to Friday and between 8am and 1pm Saturdays and at no

time on Sundays and public holidays. This condition does not apply in the event of a direction from police or other relevant authority for safety or emergency reasons.

Note: 'safety or emergency reasons' refers to emergency works which may need to be undertaken to avoid loss of life, property loss and/or to prevent environmental harm.

Train Noise Performance

L6.10 The Proponent shall take all necessary actions to ensure that trains operated on the Site have received an 'approval to operate on the NSW rail network' in accordance with the noise performance criteria established under conditions L6.1 to L6.4 in Environment Protection Licences or a Pollution Control Approval issued pursuant to the former Pollution Control Act 1970.

M8 Requirement to Monitor Noise

M8.1 To assess compliance with Condition L6.1, attended noise monitoring must be undertaken in accordance with Conditions L6.3 and:

- a) at each one or at a location representative of the most affected location of the locations listed in Condition L6.1;
- b) occur annually in a reporting period;
- c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:
 - 1.5 hours during the day;
 - 30 minutes during the evening; and
 - 1 hour during the night.
- d) 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 yearly monitoring. The assessment must be prepared by a suitably qualified and experienced person and include:

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