Your reference:
Our reference: PART 3A DOC13/25084; LIC08/960-06
Contact: Karen Marler (02) 4908 6803

Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001
Attention: Caitlin Elliot

28 JUN 2013

Dear Ms Elliot

Mangoola Coal Project – Modification 6 (DA 06_0014 MOD 6)

I refer to your email of 28 May 2013 and the document titled: *"Mangoola Coal Modification 6 Environmental Assessment"* (the EA) prepared by EMGA Mitchell McLennan Pty Limited and dated 23 May 2013 and requesting assessment and comments from the Environment Protection Authority (EPA) regarding the project.

The EPA understands that the proposed project includes:

- Increase in equipment and employee numbers to support increased mining intensity
- Increase in frequency of blasting from five blasts per week to six blasts per week and removing the condition relating to maximum instantaneous charge.
- Utilisation of mined waste rock for on-site gravel production. Up to 50,000 tonnes of rock will be crushed on site per year
- Discharge of saline water to the Hunter River under the Hunter River Salinity Trading Scheme

The EPA has reviewed the EA, and provides the following comments. Recommended conditions are provided at **Attachment A**. Please note that these conditions do not repeat conditions which are already a part of Environment Protection Licence 12894 issued to Xstrata Mangoola Pty Limited for the Mangoola Coal Mine. The EPA is unable to provide recommended condition in relation to noise impacts until further information is provided (see comments below).

Noise Impact Assessment

In *Bulga Milbrodale Progress Association Inc v Minister for Planning and Infrastructure and Warkworth Mining Limited [2013] NSWLEC 48*, one of the issues which lead to the appeal being upheld was that impacts above the Project Specific Noise Level (PSNL) were predicted, but that in giving approval to the project the Department of Planning and Infrastructure did not consider the acceptability of the impacts in accordance with Chapters 8 and 9 of the Industrial Noise Policy (INP). The EA does not appear to include justification that the residual level of impact at receivers expected to be impacted above the PSNL is acceptable in accordance with Chapters 8 and 9 of the INP.

The EPA cannot find in the EA evidence that there are no other reasonable and feasible measures available, other than those proposed, as required in the Director Generals Requirements for the project. The EPA requests that the proponent present justification that all reasonable and feasible noise mitigation controls have been considered, and provide details of how this was determined. The EPA is not able to provide recommended conditions of approval for this project in relation to noise impacts until this information is provided.

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Air Quality Impact Assessment

The Air Quality Impact Assessment (AQIA) at Appendix F of the EA generally follows the requirements of the EPA's *Approved Methods for the Modelling and Assessment of Air pollutants in NSW*. The AQIA assesses multiple operating scenarios with run of mine coal production at a rate up to 13.5 million tonnes per annum (Mtpa). The assessed production rate represents a 28% increase compared with the current approved operations (10.5 Mtpa).

The AQIA predicts exceedances of EPA's impact assessment criteria for PM10 and TSP at up to 11 privately owned receptors (refer to AQIA Table 11-9) and Table 8-1 of the AQIA lists air quality (dust) mitigation measures that will be used to control emissions and minimise off site impacts. The EPA notes that not all controls listed are quantifiable, measurable, auditable and enforceable.

Section 15.1 of the AQIA advises that an air quality management plan is currently implemented at the site. Minimal detail from the existing air quality management plan is provided in the assessment. The emissions inventory adopted for the proposal and used in the dispersion modelling is not explicitly linked to the current air quality management plan. Control factors adopted in the emissions inventory are not paired with specific auditable actions from the air quality management plan.

The Environment Protection Licence for the Mangoola mine currently includes three dust Pollution Reduction Programs (PRP's) as a part of the EPA's Dust Stop program, which require control of wheel generated dust emissions, amendment of operations during adverse weather conditions and the investigation of best practice for handling overburden. These requirements will apply to this project also.

The EPA recommends that the proponent prepare an updated air quality management plan for the modified operations that includes, but is not limited to:

- Key performance indicator(s);
- Monitoring method(s);
- Location, frequency and duration of monitoring;
- Record keeping;
- Response mechanisms; and
- Compliance reporting.

Surface Water Impact Assessment

The proponent is seeking approval to discharge saline water from the Mangoola Mine in accordance with the Hunter River Salinity Trading Scheme.

The surface water assessment (SWA) at Appendix H of the EA identifies three sources of water to be managed as part of the projects water management system - the saline water zone, the dirty water zone and the raw water zone. The SWA makes no mention of the fact that water with an electrical conductivity of more than 400 µS/cm is defined as 'saline water' for the purposes of the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002* (HRSTS Regulation) and can only be discharged via an authorised discharge point. This should be a key design criteria for the development of any water management system at the site – as it is possible that waters within the dirty water zone may also be 'saline'. The proponent should note that conformance with the requirements of the 'Blue Book' for run-off from disturbed areas may still result in non-compliance with the HRSTS Regulation and the Environment Protection Licence.

The recommended conditions of approval at Attachment A include conditions relating to the discharge of saline water from the site.

Please contact me on (02) 4908 6803 if you require any further information regarding this matter.

Yours sincerely

KAREN MARLER
Head Regional Operations Unit – Hunter
Environment Protection Authority

ATTACHMENT A

RECOMMENDED CONDITIONS OF APPROVAL – MANGOOLA COAL PROJECT MODIFICATION 6

ADMINISTRATIVE CONDITIONS

Works to be undertaken in accordance with information supplied

1. Except as provided by these recommended conditions of approval, the works and activities shall be undertaken in accordance with the proposal contained in:

   (a) The development application DA 06_0014 MOD 6 submitted to the NSW Department of Planning and Infrastructure; and
   (b) The document *"Mangoola Coal Modification 6 Environmental Assessment"* (the EA) prepared by EMGA Mitchell McLennan Pty Limited and dated 23 May 2013.

   unless otherwise specified in these conditions of approval.

WATER QUALITY CONDITIONS

2. Location of monitoring/discharge points and areas

2.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Water and Land

EPA Identification No.	Type of monitoring point	Type of discharge point	Description of location
12 (or as specified in the Environment Protection Licence)	Hunter River Salinity Trading Scheme discharge and monitoring point	Hunter River Salinity Trading Scheme discharge and monitoring point	Discharge from Pit Water Dam to the Hunter River near the Hunter River Pump Station (location details to be provided by the proponent with the licence variation application)
13, 14 (number of locations to be specified in the Environment Protection Licence)	Ambient surface water monitoring		At locations upstream and downstream of the Hunter River Salinity Trading Scheme discharge point , and at other ambient locations located to determine the impact the of surface water discharges and runoff from mining operations at the premises (location references to be provided by the proponent with the licence variation application)

3. Limit Conditions

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

3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table:

Water and/or land concentration limits

POINT 12 (Point number to be specified in the Environment Protection Licence)

Parameter	Units of measure	100 percentile concentration limit
pH	pH	6.5-9.0
Total suspended solids	milligrams per litre	120

4. Volume and Mass Limits

4.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
(a) Liquids discharged to water, or;
(b) Solids or liquids applied to the area;
Must not exceed the volume/mass limit specified for that discharge point or area.

Point	Units of measure	Volume/Mass Limit
12	Megalitres per day	50

5. Monitoring and Recording Conditions

5.1 Requirement to monitor concentration of pollutants discharged

For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

Water and/or land monitoring requirements

POINT 12 (number of points to be determined in licence variation application and Point number to be specified in the Environment Protection Licence)

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	Microsiemens per centimetre	Continuous	A probe designed to measure the range 0 to 10,000 µS/cm
pH	pH	Daily during any discharge	Representative sample
Total suspended solids	milligrams per litre	Daily during any discharge	Representative sample

6 Requirement to monitor volume or mass

For each discharge point or utilisation area specified below, the licensee must monitor:
(a) The volume of liquids discharge to water or applied to the area;
(b) The mass of solids applied to the area;
(c) The mass of pollutants emitted to the air;
at the frequency and using the method and units of measure, specified below.

POINT 12 (Point number to be specified in the Environment Protection Licence)

Frequency	Units of measure	Sampling Method
Continuous	Megalitres per day	Ultrasonic flow meter and continuous logger or as otherwise specified by the EPA.

7. Hunter River Salinity Trading Scheme (HRSTS) Monitoring

7.1 The licensee must continuously operate and maintain communication equipment which makes the conductivity and flow measurements taken at Points 5 and 6 available to the NSW Office of Water (or other service provider as advised by the EPA) within one hour of those measurements being taken and makes then available in the format specified in the 'Hunter River Salinity Trading Scheme Discharge Point Site Equipment" as published the (then) Department of Land and Water Conservation on 7 May 2002 or as otherwise approved by the EPA.

7.2 The licensee must ensure that all monitoring data is within a margin or error of 5% for conductivity measurements and 10% for discharge flow measurements.

7.3 The licensee must mark Point 12 with a sign which clearly indicates the name of the licensee, and that Point 12 is a monitoring points for the HRSTS.

7.4 The licensee must mark all other ambient monitoring points (Points 13, 14 etc as specified in the licence) with signs which clearly indicate the name of the licensee, whether the monitoring point is upstream or downstream of discharge points 12 and that they are monitoring points for the HRSTS.

8. Saline Dispersion Study

8.1 During the licensee's first discharge under the HRSTS the licensee must monitor salinity levels at least at the following location, provided it is safe to do so:

- at the nearest downstream irrigation off-take point.

As far as practicable monitoring should be timed to coincide with the peak flow of discharge water. The results of this monitoring must be reported to the EPA's Regional Manager Hunter within 30 days of being collected. The report should detail the exact location(s), time(s) and method(s) of monitoring.

Note:- A handheld salinity probe is considered an adequate method of undertaking this monitoring.

9. Discharge Lag Time Study

9.1 Prior to any discharge of saline water from the premises, the licensee is to advise the Hunter Region Office of the EPA in writing of the estimated lag time (in hours) for discharges from the Hunter River Salinity Trading Scheme (HRSTS) discharge point to reach the Hunter River gauging station number 210055 (the HRSTS upper sector reference point which is located near Denman).