

Environment Protection Licence

Licence - 12789

<u>Licence Details</u>	
Number:	12789
Anniversary Date:	20-February

<u>Licensee</u>
NARRABRI COAL OPERATIONS PTY LTD
LOCKED BAG 1002
NARRABRI NSW 2390

<u>Premises</u>
NARRABRI COAL OPERATIONS
10 KURRAJONG CREEK ROAD
BAAN BAA NSW 2390

<u>Scheduled Activity</u>
Coal works
Mining for coal

<u>Fee Based Activity</u>	<u>Scale</u>
Coal works	> 5000000 T annual handling capacity
Mining for coal	> 5000000 T annual production capacity

<u>Region</u>
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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

NARRABRI COAL OPERATIONS PTY LTD
LOCKED BAG 1002
NARRABRI NSW 2390

subject to the conditions which follow.

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Coal works	Coal works	> 5000000 T annual handing capacity
Mining for coal	Mining for coal	> 5000000 T annual production capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
NARRABRI COAL OPERATIONS
10 KURRAJONG CREEK ROAD
BAAN BAA
NSW 2390
THE LAND APPROVED UNDER PROJECT APPROVAL 08_0144- INDICATED IN APPENDIX 1- SCHEDULE OF PROJECT LAND OF PROJECT APPROVAL 08_0144, DATED 26 JULY 2010 (DOC13/91155).

A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

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2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 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.

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
3	Ambient Air Quality Monitoring		Monitoring point located at "Bow Hills" and labelled ND3 as shown on map titled "EPL 12789 Monitoring Locations" dated 21/02/2017- EPA DOC17/131971.
23		Gas Drainage Network	Pre- drainage and Goaf gas drainage network associated with the underground mining operations.

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

<i>Water and land</i>			
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
11	Wet weather discharge Discharge water quality monitoring	Wet weather discharge Discharge water quality monitoring	Discharge point on northern side of mine boundary labelled as "SD4" on Figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
13	Wet weather discharge Discharge water quality monitoring	Wet weather discharge Discharge water quality monitoring	Discharge point on south eastern side of mine boundary labelled as "SD2" on Figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
14	Ambient Water Quality Monitoring		Upstream of mine discharge point on Kurralong Creek Tributary 1 labelled as "KC1US" on Figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971."

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15	Ambient Water Quality Monitoring		Downstream of mine discharge point on Kurrajong Creek Tributary 1 labelled as "KC1DS" on Figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971."
16	Ambient Water Quality Monitoring		Upstream of mine discharge point on Kurrajong Creek Tributary 2 labelled as "KC2US" on Figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
17	Ambient Water Quality Monitoring		Downstream of mine discharge point on Kurrajong Creek Tributary 2 labelled as "KC2DS" on Figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
18	Wet weather discharge Discharge water quality monitoring	Wet weather discharge Discharge water quality monitoring	Discharge point on western side of mine boundary labelled as "SD7" on figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
19	Ambient Water Quality Monitoring		Upstream location of Kurrajong Creek labelled as "KCUS" on figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
20	Ambient Water Quality Monitoring		Upstream location of Kurrajong Creek labelled as "KCDS" on figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
21	Ambient Water Quality Monitoring		Northern portion of mining area in Pine Creek labelled as "PCa" on figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
22	Ambient Water Quality Monitoring		Monitoring point in Pine Creek Tributary 1 labelled as "PC1" on figure titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
24	Water Quality Monitoring	Water Quality Monitoring	Discharge point at Namoi River Labelled as NR1 on Map titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
25	Ambient Water Quality Monitoring	Ambient Water Quality Monitoring	Discharge point at Namoi River Labelled as NRUS on Map titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.

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26	Ambient Water Quality Monitoring	Ambient Water Quality Monitoring	Discharge point at Namoi River Labelled as NRDS on Map titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.
27	Wet Weather Discharge Discharge water quality monitoring	Wet Weather Discharge Discharge water quality monitoring	Discharge point at Ventilation Shaft Labelled as SD8 on Map titled "EPL 12789 Monitoring Locations" dated 21/02/2017, EPA DOC17/131971.

P1.4 Point W1 in the table, is identified in this license for the purpose of monitoring of weather parameters at that point. Point W2 in the table, is identified in this license for the purpose of monitoring Inversion conditions.

EPA identification number	Type of Monitoring Point	Description of Location
W1	Weather analysis	Weather station identified as "W1" on map titled "EPL 12789 Monitoring Locations" dated 21/02/2017 - EPA DOC17/131971.
W2	Measurement of Inversion conditions	Inversion tower identified as "W2" on map titled "EPL 12789 Monitoring Locations" dated 21/02/2017 - EPA DOC17/131971.

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table below (by a point number), 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.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table.

L2.4 Water and/or Land Concentration Limits

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POINT 11,13,18,27

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Oil and Grease	milligrams per litre	-	-	-	10

POINT 11,13,18,24,27

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
pH	pH	-	-	-	6.5-8.5

POINT 11,13,18,27

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total suspended solids	milligrams per litre	-	-	-	50

POINT 24

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Total dissolved solids	milligrams per litre	250			350

L2.5 The Total Suspended Solids concentration limits specified for Points 11, 13, 18 and 27 may be exceeded for water discharged provided that:

- (a) the discharge occurs solely as a result of rainfall measured at the premises that exceeds 38.4 millimetres over any consecutive 5 day period immediately prior to the discharge occurring; and
- (b) all practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store run off from a 38.4 millimetre, 5 day rainfall event.

Note: 38.4 mm equates to the 5 day 90%ile rainfall depth for Gunnedah sourced from Table 6.3a Managing Urban Stormwater: Soils and Construction Volume 1: 4th edition, March 2004.

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L3 Noise limits

L3.1 Noise generated at the premises must not exceed the noise limits in the table below.

Locality and Location	Day- LAeq (15 minute)	Evening- LAeq (15 minute)	Night- LAeq (15 minute)	Night- LA1 (1 minute)
All privately-owned residences	35	35	35	45

L3.2 The noise limits identified in the above table do not apply at privately owned residences that are:

- identified as residences subject to acquisition or noise mitigation on request within the Project Approval; or
- subject to a private agreement, relating to the noise levels, between the licensee and the land owner.

L3.3 For the purpose of the table above:

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

L3.4 Determining Compliance

To determine compliance:

- with the Leq(15 minute) noise limits in the Noise Limits table, 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.
- with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade.
- with the noise limits in the Noise Limits table, 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 part (a) or part (b) of this condition.

L3.5 The noise limits set out in the Noise Limits table apply under all meteorological conditions except for the following:

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

For the purposes of this condition:

- Data recorded by the meteorological station identified as EPA Identification Point(s) W1 must be used to determine meteorological conditions; and

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ii) Temperature inversion conditions (stability category) are to be determined by direct measurement over a minimum 50m height interval as referred to in Part E2 of Appendix E of the *"New South Wales Industrial Noise Policy"* dated January 2000 ISBN 0 7313 2715 2.

L3.6 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.

L4 Blasting

- L4.1 The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) 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.
- L4.2 The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time. 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.
- L4.3 The airblast overpressure level from blasting operations listed in Conditions L4.1 and L4.2 must not be exceeded at any point within 30 metres of any non-project related residential building or other noise sensitive location.
- L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec 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.
- L4.5 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time. 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.
- L4.6 The ground vibration peak particle velocity limits listed in Conditions L4.5 and L4.4 must not be exceeded at any point within 3.5 metres of any non-project related residential building or other noise sensitive location.
- L4.7 Blasting operations at the premises may only take place between 10:00am-4:00pm Monday to Friday. (Where compelling safety reasons exist, the Authority may permit a blast to occur outside the abovementioned hours. Prior written (or facsimile) notification of any such blast must be made to the Authority).
- L4.8 Blasting at the premises is limited to:
- a) A maximum of two (2) blasts per day;
 - b) Five (5) blasts a week, averaged over a twelve month period;
- on each day on which blasting is permitted.

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4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

O4 Other operating conditions

Pollution Incident Response Management Plan

O4.1 The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The PIRMP must document systems and procedures to deal with all types of incidents (e.g. spills, explosions, fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.

O4.2 The licensee must keep the PIRMP on the premises at all times.

5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

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M1.2 All records required to be kept by this licence must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and
- produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:

- the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 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:

M2.2 Air Monitoring Requirements

POINT 3

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Once a month (min. of 4 weeks)	AM-19

M2.3 Water and/ or Land Monitoring Requirements

POINT 11,13,18,27

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Special Frequency 1	In situ
Oil and Grease	milligrams per litre	Special Frequency 1	Grab sample
pH	pH	Special Frequency 1	In situ
Total organic carbon	milligrams per litre	Special Frequency 1	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 1	Grab sample

POINT 14,15,16,17,19,20,21,22

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Pollutant	Units of measure	Frequency	Sampling Method
pH	pH	Special Frequency 2	In situ

POINT 14,17,16,15,19,20,21,22

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Special Frequency 2	In situ
Oil and Grease	milligrams per litre	Special Frequency 2	Grab sample
Total organic carbon	milligrams per litre	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample

POINT 24,25,26

Pollutant	Units of measure	Frequency	Sampling Method
pH	pH	Special Frequency 3	In situ
Total dissolved solids	milligrams per litre	Special Frequency 3	Grab sample

- M2.4 For the purposes of the table(s) above Special Frequency 1 means the collection of samples as soon as practicable after each discharge commences and in any case not more than 12 hours after each discharge commences.
- M2.5 For the purposes of the table(s) above Special Frequency 2 means the collection of samples quarterly (in the event of flow during the quarter) at a time when there is flow and as soon as practicable after each wet weather discharge from points 11, 13,18 or 27 commences and in any case not more than 12 hours after each discharge commences.
- M2.6 Note: Groundwater monitoring has not been formally included in the licence. However, the licensee is required to undertake groundwater monitoring in accordance with the Department of Planning and Environment approved "Stage 2 Water Management Plan" required under Schedule 4, condition 18 of the Project Approval (08_0144) for the Stage 2 project. The results of this monitoring are required to be reported in the Annual Review.
- M2.7 For the purposes of the table(s) above Special Frequency 3 means the collection of samples as soon as practicable after each discharge commences from point NR1 and in any case not more than 4 hours after each discharge.

M3 Testing methods - concentration limits

- M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
- any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or

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b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or

c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M4 Weather monitoring

M4.1 Requirement to monitor weather

For each monitoring point specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the parameter 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
Rainfall	mm	Continuous	1 hour	AM-4
Wind speed @ 10 metres	m/s	Continuous	15 minute	AM-2 & AM-4
Wind direction @ 10 metres	°	Continuous	15 minute	AM-2 & AM-4
Temperature @ 2 metres	°C	Continuous	15 minute	AM-4
Temperature @ 10 metres	°C	Continuous	15 minute	AM-4
Sigma theta @ 10 metres	°	Continuous	15 minute	AM-2 & AM-4
Solar radiation	W/m ²	Continuous	15 minute	AM-4
Additional requirements - siting - measurement				AM-1 & AM-4 AM-2 & AM-4

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M5 Recording of pollution complaints

- M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.
- M5.2 The record must include details of the following:
- the date and time of the complaint;
 - the method by which the complaint was made;
 - any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
 - the nature of the complaint;
 - the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
 - if no action was taken by the licensee, the reasons why no action was taken.
- M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M6 Telephone complaints line

- M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.
- M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.
- M6.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

M7 Noise monitoring

- M7.1 For each monitoring point specified below, the Licensee must monitor the noise or vibration parameter 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.

POINTS: N5, N6 and N8

Parameter	Units of Measure	Frequency	Sampling Method
Ambient Noise	LAeq (15minute) LAmax LA1 LA10 LA90 LAmin	Quarterly monitoring as detailed in the most recently approved "Noise Management Plan" for the premises.	As detailed in the most recently approved "Noise Management Plan" for the premises.

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M7.2 POINT: N10

Parameter	Units of Measure	Frequency	Sampling Method
Ambient Noise	LAeq (15 minutes) LAmix LA1 LA10 LA90 LAmin	Continuous real time noise monitoring as detailed in the most recently approved "Noise Management Plan" for the premises.	As detailed in the most recently approved "Noise Management Plan" for the premises.

M7.3 For the purposes of conditions M7.1 and M7.2 the monitoring locations are described as:

EPA Identification No.	Description of location
N5	Within 30 metres of the residence on the property "Oakleigh"
N6	Within 30 metres of the residence on the property "Newhaven"
N8	Within 30 metres of the residence on the property "Haylin View"
N10	Portable Monitor
N9	Within 30 metres of the residence on the property "High Range"

Note: Monitoring at N8 to commence when surface activities approach the eastern end of the southern longwall panels.

Note: N10 is a portable monitor enabling the monitor to be relocated to areas of potential greatest impact. The licensee is responsible to ensure that it is located at the most suitable location.

M7.4 To assess compliance with the noise limits presented in the Noise Limits table, attended noise monitoring must be undertaken in accordance with the condition titled Determining Compliance, outlined above, and:

- a) at each one of the monitoring locations N5, N6, N8 and N9;
- b) occur Quarterly 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:
 - i) 1.5 hours during the day;
 - ii) 30 minutes during the evening; and
 - iii) 1 hour during the night.
- d) occur for three consecutive operating days.

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6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

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R2 Notification of environmental harm

- R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.
- R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R3 Written report

- R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
- a) where this licence applies to premises, an event has occurred at the premises; or
 - b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
- and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.
- R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.
- R3.3 The request may require a report which includes any or all of the following information:
- a) the cause, time and duration of the event;
 - b) the type, volume and concentration of every pollutant discharged as a result of the event;
 - c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
 - d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
 - e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
 - f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
 - g) any other relevant matters.
- R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

- R4.1 A noise compliance assessment report must be submitted to the EPA within thirty (30) days of the

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completion of the quarterly noise monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

- a) an assessment of compliance with noise limits detailed in the limit conditions of this licence; and
- b) an outline of any management actions taken within the monitoring period to address any exceedences of the limits detailed in the limit conditions of this licence.

7 General Conditions

G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

8 Pollution Studies and Reduction Programs

U1 Investigate the use of Chemical Veneers

- U1.1 The Licensee must undertake a study, and provide a report, on the possible use of chemical veneers to suppress dust from coal stockpiles at Narrabri Underground Mine.

The study must include and not be limited to:

1. The use of a chemical veneer on coal stockpiles.
2. The delivery of the veneer using water cannons and trucks.
3. The use of a chemical veneer into water deluge nozzles and dump/loader pockets, surge bins, seam bins or ROM coal bins to modify coal characteristics to prevent fugitive dust from being generated.
4. Examination of concentrations of chemical veneer required, taking into account estimated wind speeds and duration of anticipated wind events.
5. Cost/benefit analysis of using chemical veneers.
6. Examination of other environmental considerations for the use of the chemical veneers.
7. An investigation into how the use of veneers would effect the requirement for use of water during mining operations.

The study must be completed by 31 March 2020 and the report provided to NSW EPA via email to Armidale@epa.nsw.gov.au, by 5pm on 14 April 2020.

- U1.2 The Licensee must nominate, for EPA approval, two suitably qualified and experienced persons to peer review the report referred to in Condition U1.1 of this licence.

The nominations must include, but is not limited to the following:

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1. Qualifications of the nominated person;
2. Relevant experience of the nominated person; and
3. Any relevant certification held by the nominated person

The nominations are to be submitted to the EPA with the report referred to in Condition U1.1 of this licence.

U2 Algal Bloom in Brine Dams

U2.1 The Licensee shall prepare and submit a report to the EPA, reporting on the algal bloom outbreak in the brine dams at the premises. This report must include, but is not limited to:

1. An outline of the actions taken to date;
2. Taxonomic identification any algae found in the brine dams;
3. Sample results for any water and/or algae samples taken from the brine dam;
4. An outline of the plan of management for the control/mitigation of the algae; and
5. Outline of how the licensee will manage odour complaints, if, or when, they are, or have been, received.

This report must be submitted to the EPA via email to Armidale@epa.nsw.gov.au by 5pm on 28 February 2020.

U3 Review of Pit Top Dust Suppression System

U3.1 The licensee must engage a suitably qualified person to undertake a quality control audit of the dust suppression systems (fixed and mobile) in operation at the pit top area of the mine and prepare a report on the finding of that audit. The audit must include and not be limited to:

1. The operation of the automated water cannon system to ensure it is effectively used to suppress dust from coal stockpiles and transport routes, including, but not limited to: spray pattern heights, spray pattern coverage, distances from stockpiles, effectiveness in varying wind conditions and air droplet sizing; and
2. The operation and use of fixed chutes on the tripper units to prevent any discharging coal from fanning and creating dust; and
3. The operations of dust suppression on primary discharge points of stackers, including the use of boom sprays and misters; and
4. The effectiveness of trigger action response plans (TARPs) in responding to dust issues at the premises; and
5. Identifying improvements that can be made to current dust suppression systems and processes, and identify any maintenance issues with the current systems that need to be rectified.

The quality control audit must be completed by 30 April 2020 and submitted to the EPA via email to Armidale@epa.nsw.gov.au by 5pm on 14 May 2020.

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9 Special Conditions

E1 Quality assurance and verification report

- E1.1 Prior to the commissioning of the Brine Storage Ponds (approved per Stage 2 Development Consent 08_0144), the licensee must provide the EPA Armidale office with an "as constructed" report, produced by an experienced and qualified engineer. The report must include detailed design plans for the ponds and illustrate the use of low permeability layers to manage mine waters generated by the project. The report also must include a detailed Quality Assurance/Quality Control program that was used throughout the construction of the ponds.

E2 Noise Impacts

- E2.1 Noise impacts where wind speed exceeds 3 metres per second at 10 metres above the ground must be addressed by:

a) documenting noise complaints received to identify any higher level of impacts or wind patterns;

where levels of noise complaints indicated a higher level of impact then actions to quantify and ameliorate any enhanced impacts where wind speed exceeds 3 metres per second at 10 metres above the ground should be developed and implemented.

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Mr Robert O'Hern

Environment Protection Authority

(By Delegation)

Date of this edition: 20-February-2008

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End Notes

- 1 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 2 Licence varied by notice 1100826, issued on 18-Aug-2009, which came into effect on 18-Aug-2009.
- 3 Licence varied by notice 1126956, issued on 13-Jul-2011, which came into effect on 13-Jul-2011.
- 4 Licence varied by notice 1502129 issued on 20-Dec-2011
- 5 Licence transferred through application 1506423 approved on 29-May-2012 , which came into effect on 31-May-2012
- 6 Licence varied by notice 1506890 issued on 19-Jun-2012
- 7 Licence varied by notice 1516738 issued on 03-Oct-2013
- 8 Licence varied by notice 1518352 issued on 05-Feb-2014
- 9 Licence varied by notice 1521420 issued on 30-Jun-2014
- 10 Licence varied by notice 1526561 issued on 24-Nov-2014
- 11 Licence varied by notice 1528869 issued on 25-May-2015
- 12 Licence varied by notice 1545740 issued on 19-Jan-2017
- 13 Licence varied by notice 1549784 issued on 18-Jun-2019
- 14 Licence varied by notice 1582323 issued on 03-Dec-2019