

Licence Variation

Licence - 12894



MANGOOLA COAL OPERATIONS PTY LIMITED
Trading as MANGOOLA COAL OPERATIONS PTY LIMITED
ABN 54 127 535 755 ACN 127 535 755
PO BOX 495
MUSWELLBROOK NSW 2333

Attention:

Notice Number 1535274
File Number EF13/4404
Date 14-Dec-2015

NOTICE OF VARIATION OF LICENCE NO. 12894

BACKGROUND

- A. MANGOOLA COAL OPERATIONS PTY LIMITED Trading as MANGOOLA COAL OPERATIONS PTY LIMITED ("the licensee") is the holder of Environment Protection Licence No. 12894 ("the licence") issued under the *Protection of the Environment Operations Act 1997* ("the Act"). The licence authorises the carrying out of activities at Wybong Road, WYBONG, NSW, 2333 ("the premises").
- B. On 09-Oct-2015 the Environment Protection Authority (EPA) received an application for the variation of the licence. The application requested that the requirement to monitor Total Suspended Particles (TSP) and dust deposition be removed from the licence.
- C. When developing the Upper Hunter Air Quality Monitoring Network (UHAQMN) the EPA and Department of Planning and Environment (DPE) entered into a Memorandum of Understanding (MoU) with Upper Hunter power station and coal mine operators. The MoU states that upon establishment of the network, the EPA and DPE would work with industry to rationalise the existing mine operated monitoring network by removing redundant monitoring requirements.
- D. To fulfil the requirements of the MoU and to facilitate capture of improved air quality data in the Upper Hunter Valley, the EPA intends to no longer require mines to monitor air quality at nearby residences, but instead monitor at locations near the edge of each mine site. Monitoring is to be both upwind and downwind of the mine site to align with the predominant wind direction. The EPA is proposing to optimise monitoring in this way because:
 - Current air quality monitoring at residential locations cannot be attributed to particular sources;
 - The optimised monitoring should provide a better indication of the particulate matter emissions from each mine, thereby giving a better indication of whether particulate matter emissions are being effectively managed at each site; and

Licence Variation



- The UHAQMN is now providing robust and quality assured data on air quality in populated areas.

E. This notice varies the air quality monitoring required by this licence to be consistent with this approach

VARIATION OF LICENCE NO. 12894

1. By this notice the EPA varies licence No. 12894. The attached licence document contains all variations that are made to the licence by this notice.
2. The following variations have been made to the licence:
 - Condition P1.1 - removal of dust monitoring points 1, 2, 3 and 4.
 - Condition P1.1 - addition of dust monitoring points 19 and 20 to enable continuous monitoring of upwind and downwind PM₁₀ concentration.
 - Condition M2.2 - remove monitoring points 1, 2, 3 and 4 and add monitoring points 19 and 20.
 - Condition M2.3 - addition of a condition to describe Special Method 1 for determining PM₁₀ concentration at monitoring points 19 and 20.
 - Condition M8.6 - addition of a condition requiring monitoring data to be recorded in ten minute intervals.

.....
Mitchell Bennett
Head Regional Operations Unit
North - Hunter
(by Delegation)

INFORMATION ABOUT THIS NOTICE

- This notice is issued under section 58(5) of the Act.
- Details provided in this notice, along with an updated version of the licence, will be available on the EPA's Public Register (<http://www.epa.nsw.gov.au/prpoeo/index.htm>) in accordance with section 308 of the Act.

Appeals against this decision

- You can appeal to the Land and Environment Court against this decision. The deadline for lodging the appeal is 21 days after you were given notice of this decision.

Licence Variation



When this notice begins to operate

- The variations to the licence specified in this notice begin to operate immediately from the date of this notice, unless another date is specified in this notice.
- If an appeal is made against this decision to vary the licence and the Land and Environment Court directs that the decision is stayed the decision does not operate until the stay ceases to have effect or the Land and Environment Court confirms the decision or the appeal is withdrawn (whichever occurs first).

Environment Protection Licence



Licence - 12894

Licence Details

Number:	12894
Anniversary Date:	07-July

Licensee

MANGOOLA COAL OPERATIONS PTY LIMITED

PO BOX 495

MUSWELLBROOK NSW 2333

Premises

MANGOOLA COAL OPERATIONS PTY LIMITED

WYBONG ROAD

WYBONG NSW 2333

Scheduled Activity

Coal Works

Crushing, Grinding or Separating

Mining for Coal

Railway Systems Activities

Fee Based Activity

Scale

Coal works	> 5000000 T handled
Crushing, grinding or separating	> 500000-2000000 T processed
Mining for coal	> 5000000 T produced
Railway systems activities	Any annual capacity

Region

North - Hunter

Ground Floor, NSW Govt Offices, 117 Bull Street
NEWCASTLE WEST NSW 2302

Phone: (02) 4908 6800

Fax: (02) 4908 6810

PO Box 488G NEWCASTLE

NSW 2300

Environment Protection Licence

Licence - 12894



INFORMATION ABOUT THIS LICENCE	4
Dictionary	4
Responsibilities of licensee	4
Variation of licence conditions	4
Duration of licence	4
Licence review	4
Fees and annual return to be sent to the EPA	4
Transfer of licence	5
Public register and access to monitoring data	5
1 ADMINISTRATIVE CONDITIONS	6
A1 What the licence authorises and regulates	6
A2 Premises or plant to which this licence applies	6
A3 Information supplied to the EPA	6
2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND	7
P1 Location of monitoring/discharge points and areas	7
3 LIMIT CONDITIONS	9
L1 Pollution of waters	9
L2 Concentration limits	9
L3 Noise limits	9
L4 Blasting	11
4 OPERATING CONDITIONS	12
O1 Activities must be carried out in a competent manner	12
O2 Maintenance of plant and equipment	12
O3 Dust	12
O4 Effluent application to land	12
O5 Other operating conditions	13
5 MONITORING AND RECORDING CONDITIONS	13
M1 Monitoring records	13
M2 Requirement to monitor concentration of pollutants discharged	13
M3 Testing methods - concentration limits	15
M4 Weather monitoring	15
M5 Recording of pollution complaints	16
M6 Telephone complaints line	16
M7 Blasting	16

Environment Protection Licence



Licence - 12894

M8	Other monitoring and recording conditions	17
6	REPORTING CONDITIONS	17
R1	Annual return documents	17
R2	Notification of environmental harm	18
R3	Written report	18
R4	Other reporting conditions	19
7	GENERAL CONDITIONS	20
G1	Copy of licence kept at the premises or plant	20
8	POLLUTION STUDIES AND REDUCTION PROGRAMS	20
U1	Coal Mine Wind Erosion of Exposed Land Assessment	20
U2	Saline Dispersion Investigation	21
U3	Targeted Noise Monitoring and Assessment Program	21
9	SPECIAL CONDITIONS	22
E1	Hunter River Salinity Training Scheme	22
DICTIONARY		23
	General Dictionary	23

Environment Protection Licence

Licence - 12894



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).

Environment Protection Licence

Licence - 12894



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:

MANGOOLA COAL OPERATIONS PTY LIMITED

PO BOX 495

MUSWELLBROOK NSW 2333

subject to the conditions which follow.

Environment Protection Licence

Licence - 12894



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 handled
Crushing, Grinding or Separating	Crushing, grinding or separating	> 500000 - 2000000 T processed
Mining for Coal	Mining for coal	> 5000000 T produced
Railway Systems Activities	Railway systems activities	Any annual capacity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
MANGOOLA COAL OPERATIONS PTY LIMITED
WYBONG ROAD
WYBONG
NSW 2333
THE PREMISES IS AS SHOWN IN THE MAP TITLED "EPL 12894 BOUNDARY" DATED 10/04/2013 AND PROVIDED TO THE EPA ON 11 APRIL 2013 (DOC13/15510). PUBLIC ROADS ARE NOT A PART OF THE PREMISES.

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.

Environment Protection Licence

Licence - 12894



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.

Air

EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
5	Meteorological Monitoring		Weather Station North (WSN), located north of the site (Wybong Road), as shown on plan titled "Mangoola Coal Meteorological Stations" dated 7/08/2015, DOC15/303778.
18	Meteorological Monitoring		Weather Station South (WSS), located south of the Coal Handling and Preparation Plant as shown on plan titled "Mangoola Coal Meteorological Stations" dated 7/08/2015, DOC15/303778.
19	Particulate Matter Monitoring		Monitor "D7" at coordinates 279920 6426993 (Easting Northing) as shown on plan titled "Mangoola Open Cut Location of E Sampler Units" dated 18/11/2015, DOC15/399801-02.
20	Particulate Matter Monitoring		Monitor "D8" at coordinates 285715 6421858 (Easting Northing) as shown on plan titled "Mangoola Open Cut Location of E Sampler Units" dated 18/11/2015, DOC15/399801-02.

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.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
6	Ambient Surface Water Monitoring		Anvil Creek as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
7	Ambient Surface Water Monitoring		Sandy Creek as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.

Environment Protection Licence

Licence - 12894



8	Ambient Surface Water Monitoring		Big Flat Creek Tributary s shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
9	Ambient Surface Water Monitoring		Wybong Creek as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
10	Groundwater Monitoring		Big Flat Creek as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
11	Groundwater Monitoring		Wybong Creek as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
12	Discharge point under the Hunter River Salinity Trading Scheme; Discharge quality and volume monitoring	Discharge point under the Hunter River Salinity Trading Scheme; Discharge quality and volume monitoring	Outlet of HRSTS discharge pipe as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
13	Ambient Surface Water Monitoring		Hunter River - downstream as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.
14	Ambient Surface Water Monitoring		Hunter River - upstream as shown on plan titled "EPL12894 Surface Water and Groundwater Monitoring Locations", dated 7/11/2014, DOC14/284854.

P1.4 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or setting of limits for the emission of noise from the point.

Noise

EPA identification no.	Type of monitoring point	Location description
15	Air blast overpressure & ground vibration peak particle velocity monitoring	Monitoring location identified as "BM01" in the document titled: "Mangoola Open Cut, 2015 EPL Blast Monitoring Locations, 2/06/2015"
16	Air blast overpressure & ground vibration peak particle velocity monitoring	Monitoring location identified as "BM03" in the document titled: "Mangoola Open Cut, 2015 EPL Blast Monitoring Locations, 2/06/2015"

Environment Protection Licence

Licence - 12894



17	Air blast overpressure & ground vibration peak particle velocity monitoring	Monitoring location identified as "BM04" in the document titled: "Mangoola Open Cut, 2015 EPL Blast Monitoring Locations, 2/06/2015"
----	---	--

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

POINT 12

Pollutant	Units of Measure	50 Percentile concentration limit	90 Percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
pH	pH				6.5-9.5
Total suspended solids	milligrams per litre				120

L3 Noise limits

L3.1 Noise generated from the premises must not exceed the noise impact assessment criteria specified in following table:

Environment Protection Licence



Licence - 12894

Land Number	Day LAeq(15 minute)	Evening LAeq(15 minute)	Night LAeq(15 minute)	Night LA1(1 minute)
132A	40	40	40	45
121, 132B	39	39	39	45
176	38	38	38	45
25, 66, 110, 130, 148, 154, 164	37	37	37	45
106C, 111, 174A, 174B, 175	36	36	36	45
109, 134A, 134B, 177, 190, 251	35	35	35	45
All other privately-owned land	35	35	35	45
Anglican Church, Castlerock Road	41	41	41	-

Note: For the purposes of condition L3.1:

- 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;
- The limits specified in condition L3.1 do not apply if the Licensee has an approved written agreement with the relevant owner/s of these residences to generate higher noise levels;
- The limits at condition L3.1 do not apply to mine owned residences;
- Land identification numbers are as defined on the plan title " Appendix 4 Land Ownership" as per Project Approval 06_0014, dated February 2014 (DOC14/286878); and
- LAeq means the equivalent continuous noise level - the level equivalent to the energy average of noise levels occurring over a measurement period.
- The limits specified in condition L3.1 do not apply to properties in which the Licensee can demonstrate are not in an inhabitable state as per the Building Code of Australia. If such properties do become inhabitable or re-occupied then limits specified in condition L3.1 do apply.

L3.2 To determine compliance with the LAeq(15 minutes) limits specified in condition L3.1, noise from the premises must be measured at, or computed for, the most affected point on or within the residential boundary, or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary.

Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.

The modification factors presented in Section 4 of the NSW Industrial Noise Policy must be applied to the measured noise levels where applicable.

L3.3 To determine compliance with the LA1(1minute) noise limits in condition L3.1, noise from the premises is to be measured at 1m from the dwelling façade.

Where it can be demonstrated that direct measurement of noise from the premises is impractical, the

Environment Protection Licence



Licence - 12894

EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.

- L3.4 The noise emission limits identified in condition L3.1 apply under all meteorological conditions except for the following:
- Wind speeds greater than 3m/s at 10 metres above ground level; or
 - Stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10 metres above the ground level; or
 - Stability category G temperature inversion conditions.
- L3.5 For the purpose of condition L3.4:
- Data recorded from the meteorological stations identified as EPA Licence Points 5 and 18 which is located closest to each receptor must be used to determine the meteorological conditions; and
 - 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.

L4 Blasting

- L4.1 The airblast overpressure level from blasting operations in or on the premises must not exceed: 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; at either monitoring point 15, 16 or 17 in Condition P1.4.
- L4.2 The airblast overpressure level from blasting operations in or on the premises must not exceed: 120 dB (Lin Peak) at any time; at either monitoring point 15, 16 or 17 in Condition P1.4.
- L4.3 The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 5 mm/second for more than 5% of the total number of blasts during each reporting period; at either monitoring point 15, 16 or 17 in Condition P1.4.
- L4.4 The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 10 mm/second at any time; at either monitoring point 15, 16 or 17 in Condition P1.4.
- L4.5 Blasting in or on the premises must only be carried out between 9:00 hours and 15:00 hours, Monday to Saturday. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.
- L4.6 Offensive blast fume must not be emitted from the premises.

Definition:

Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:

Environment Protection Licence



Licence - 12894

1. *are harmful to (or likely to be harmful to) a person that is outside the premises from which it is emitted, or*
2. *interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.*

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 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O3.2 Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

O3.3 All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.

O4 Effluent application to land

O4.1 Effluent application must not occur in a manner that causes surface runoff.

O4.2 Spray from effluent application must not drift beyond the boundary of the premises.

O4.3 The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids.

Environment Protection Licence

Licence - 12894



For the purpose of this condition, 'effectively utilise' include the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.

O5 Other operating conditions

- O5.1 A saline water management system must be established for the containment of any water that has come into contact with coal or coal tailings, including saline groundwater seepage, coal stockpile runoff and runoff from coal haul roads.
- O5.2 Water from the saline water management system must not be discharged from the site unless authorised by this licence and must not be used in areas that drain to the site's non-saline water management systems.

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.
- 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 19,20

Pollutant	Units of measure	Frequency	Sampling Method
-----------	------------------	-----------	-----------------

Environment Protection Licence

Licence - 12894



PM10	micrograms per cubic metre	Continuous	Special Method 1
------	----------------------------	------------	------------------

Note: Special Method 1 requires the Licensee to undertake the monitoring of PM10 concentration in strict accordance with the manufacturer's operating manual supplied with the continuous monitoring equipment and titled "E-Sampler-9800 Particulate Monitor Operation Manual Revision K", or any updated version as published by the manufacturer.

M2.3 Water and/ or Land Monitoring Requirements

POINT 6,7,8,9

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Once a month (min. of 4 weeks)	Grab sample
pH	pH	Once a month (min. of 4 weeks)	Grab sample
Total suspended solids	milligrams per litre	Once a month (min. of 4 weeks)	Grab sample

POINT 10,11

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Quarterly	A probe designed to measure the range 0 to 10,000 uS/cm
pH	pH	Quarterly	Grab sample

POINT 12

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

POINT 13,14

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per metre	Daily during any discharge	Grab sample
pH	pH	Daily during any discharge	Grab sample

Environment Protection Licence



Licence - 12894

Total suspended solids	milligrams per litre	Daily during any discharge	Grab sample
------------------------	----------------------	----------------------------	-------------

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
 - 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
 - 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.

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".

- 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.

M4 Weather monitoring

- M4.1 For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns:

Point 5; and

Point 18

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Rainfall	mm	Continuous	1 hour	AM-4
Wind speed @ 10 metres	m/s	Continuous	15 minutes	AM-2 & AM-4
Wind direction @ 10 metres	0	Continuous	15 minutes	AM-2 & AM-4
Temperature @ 2 metres	0C	Continuous	15 minutes	AM-4
Temperature @ 10 metres	0C	Continuous	15 minutes	AM-4
Sigma theta @ 10 metres	0	Continuous	15 minutes	AM-2 & AM-4

Environment Protection Licence

Licence - 12894



Solar radiation	W/m2	Continuous	15 minutes	AM-4
Additional requirements				AM-2 & AM-4
- siting				AM-2 & AM-4
- measurement				

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 Blasting

- M7.1 To determine compliance with conditions L4.1, L4.2, L4.3 and L4.4:
- Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 15, 16 and 17 for the parameters specified in Column 1 of the table below; and
 - The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns.

Environment Protection Licence

Licence - 12894



Parameter	Units of Measure	Frequency	Sampling Method
Airblast Overpressure	Decibels (Linear Peak)	All Blasts	Australian Standard AS 2187.2-2006
Ground Vibration Peak Particle Velocity	millimetres/second	All Blasts	Australian Standard AS 2187.2-2006

M8 Other monitoring and recording conditions

M8.1 Requirement to Monitor Noise

Every six months the Licensee must monitor noise from the premises in accordance with Conditions L3.2, L3.3 and L3.4 to determine compliance with the limits specified in Condition L3.1.

M8.2 Hunter River Salinity Trading Scheme (HRSTS) Monitoring

The licensee must continuously operate and maintain communication equipment which makes the conductivity and flow measurements, taken at Point 12 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 them available in the format specified in the "Hunter River Salinity Trading Scheme Discharge Point Site Equipment" as published by the Department of Land and Water Conservation on 7 May 2002.

M8.3 The licensee must ensure that the results of the measurements it takes at the ambient surface water monitoring points are available to the regional water quality monitoring network operated by the NSW Office of Water (or other service provider as advised by the EPA) within 1 hour of its recording.

M8.4 The licensee must ensure that all monitoring data is within a margin of error of 5% for conductivity measurements and 10% for discharge flow measurement.

M8.5 The licensee must mark monitoring point(s) 12, 13, 14 with a sign which clearly indicates the name of the licensee, whether the monitoring point is up or down stream of the discharge point(s) and that it is a monitoring point for the Hunter River Salinity Trading Scheme.

M8.6 Requirement to Monitor Particulate Matter

The Licensee must record the average PM10 concentration at Monitoring Points 19 and 20 at intervals of 10 minutes. This data must be made available upon request by any Authorised Officer of the EPA who asks to see them.

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:
 a) a Statement of Compliance; and
 b) a Monitoring and Complaints Summary.

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.

Environment Protection Licence



Licence - 12894

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

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.

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.

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

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 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 Statement 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.

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:

Environment Protection Licence

Licence - 12894



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 Reporting of Blast Monitoring

The licensee must supply, with each Annual Return, a Blast Monitoring Report which must include the following information relating to each blast carried out within the premises during the reporting period covered by the Annual Return:

- (a) the date and time of the blast;
- (b) the location of the blast on the premises;
- (c) the blast monitoring results at each blast monitoring station; and
- (d) an explanation for any missing blast monitoring results.

R4.2 Reporting exceedence of blasting limits

The licensee must report any exceedence of the licence blasting limits to the Environment Line on 131 555 as soon as practicable after the exceedence becomes known to the licensee or to one of the licensee's employees or agents.

R4.3 Noise Compliance Assessment Report

Environment Protection Licence



Licence - 12894

A noise compliance assessment report must be submitted to the EPA within three months of commencement of operations, and every 12 months thereafter submitted with the Annual Return. The report must:

- a) be prepared by an accredited acoustical consultant and determine compliance with the noise limits in condition L3.1;
- b) include all routine attended monitoring undertaken throughout the year;

R4.4 HRSTS Reporting

The licensee must compile a written report of the activities under the Scheme for each scheme year. The scheme year shall run from 1 July to 30 June each year. The written report must be submitted to the EPA's regional office within 60 days after the end of each scheme year and be in a form and manner approved by the EPA. The information will be used by the EPA to compile an annual scheme report.

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 Coal Mine Wind Erosion of Exposed Land Assessment

- U1.1 The licensee must undertake the following steps:
 1. Calculate the wind erosion exposed surface area (in hectares) within the premises as of 31 December 2014.
 2. Determine the wind erosion exposed surface area (in hectares) predicted as at 31 December 2014 within the licensee's Environmental Assessment for the premises.
 3. Compare the areas calculated in steps 1 and 2.
 4. Submit a written report to the EPA at hunter.region@epa.nsw.gov.au containing the analysis required in steps 1 to 3, by 31 March 2015.

The report submitted to the EPA must be accompanied by spatial data to confirm the wind erosion exposed surface area calculations. The following data is required:

- Shapefiles showing the premises boundary.
- Shapefiles showing the wind erosion exposed area within the premises as of 31 December 2014
- Shapefiles showing areas classified as stabilised surface as of 31 December 2014.
- Details of any studies undertaken to verify that the areas of stabilised surface meet the definition.

Note: *Environmental Assessment* means any environmental assessment document prepared in order to gain

Environment Protection Licence

Licence - 12894



approval or consent under the Environmental Planning and Assessment Act (1979) under which the licensee currently operates at the premises. If the predictions made in this document do not correspond to the current year of mine operation, the licensee should extrapolate between predictions.

Stabilised Surface means any previously disturbed surface area which shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilised. Stabilisation can be determined in accordance with one or more of the applicable test methods contained in the Rule 403 Implementation Handbook located at:

www.capcoa.org/Docs/SCAQMD%20r403%20handbook.doc.

Wind Erosion Exposed Surface Area means the portion of the premises surface which has been physically moved, uncovered, destabilised or otherwise modified from its natural state, thereby increasing the potential for fugitive particulate matter emissions, but excluding areas which have been:

- paved or covered by a permanent building or structure;
- maintained with a vegetative ground cover of at least 50% of ground cover for particular areas.

Vegetative ground cover can be determined in accordance with the standardised procedure for revegetation assessment contained in Atyeo C. & Thackway R. (2009) located at:

http://data.daff.gov.au/data/warehouse/pe_brs90000004196/revegetationManual200906_20100410_ap14.pdf or

- classified as a stabilised surface.

U2 Saline Dispersion Investigation

U2.1 During the licensee's next discharge under the Hunter River Salinity Trading Scheme (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 it should be timed to coincide with the peak flow of discharge water.

The results of this monitoring must be reported to the EPA's Manager Hunter Region within 30 days of being collected. The report should detail the exact location, time and method of monitoring.

Note: A handheld salinity probe is considered an adequate method of undertaking the monitoring. This monitoring can be carried out in conjunction with other discharging participants in the HRSTS.

U3 Targeted Noise Monitoring and Assessment Program

U3.1 The licensee must complete operator attended noise monitoring and assessment to determine compliance with the night time noise limit conditions in this licence at the residence located at 599 Roxburgh Rd, Muswellbrook, including night LAeq(15 minute) and night LA1(1 minute). All noise parameters necessary for assessment against the licence limits must be captured and permanently recorded either electronically or manually. The noise monitoring is to be undertaken by a suitably qualified and experienced person.

U3.2 Noise monitoring is to be completed once every month for a minimum of 15 minutes during the night period, for a total of 12 months. The first month of monitoring is to occur during October 2015.

Environment Protection Licence

Licence - 12894



- U3.3 Weather forecasts shall be used to assess likely wind conditions and select a monitoring date that is forecast to have meteorological conditions such that the licence limits apply
- U3.4 Where noise monitoring results identify contribution noise levels from the licensed premises above the licence limits at 599 Roxburgh Rd, Muswellbrook, monitoring must be continued for the next three (3) fifteen minute measurement periods for assessment against the licence.
- U3.5 For the purposes of assessing compliance with the noise limits for the residence located at 599 Roxburgh Rd, Muswellbrook, where it can be demonstrated that direct measurements of noise at a location satisfying conditions L3.2 and L3.3 cannot be obtained due to access issues, the licensee is to undertake the measurement at, as near as is practicable, to the intersection of the driveway of 599 Roxburgh Rd and Roxburgh Road, Muswellbrook. The EPA will regard measurements undertaken at a location on Roxburgh Road that is the reasonably most closest point to the residence, as being taken at a location satisfying L3.2 and L3.3.
- U3.6 The licensee is to submit the results of noise monitoring to the EPA at hunter.region@epa.nsw.gov.au on a monthly basis, together with the meteorological data for the monitoring period from the Mangoola weather station, and a summary report of the 12 months of monitoring within 2 weeks of completion of the monitoring program.

9 Special Conditions

E1 Hunter River Salinity Trading Scheme

- E1.1 This licence authorises the discharge of saline water into the Hunter River Catchment from an authorised discharge point (or points), in accordance with the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2012*.
- E1.2 For the purposes of Clauses 23 and 29 of the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 the licensee must apply the conversion factor of 0.6.
- E1.3 Conditions M2.3 (relevant to monitoring points 12, 13 and 14), M8.2, M8.3, M8.5, R4.4 and E1.1 do not apply until the licensee notifies the EPA in writing that the monitoring and telemetry equipment is installed as per the conditions of this licence. Until the EPA receives notification, this licence does not authorise the discharge of saline water.

Environment Protection Licence



Licence - 12894

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

Environment Protection Licence



Licence - 12894

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> .

Environment Protection Licence

Licence - 12894



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 Mitchell Bennett

Environment Protection Authority

(By Delegation)

Date of this edition: 07-July-2008

Environment Protection Licence

Licence - 12894



End Notes

- 1 Licence varied by notice 1092347, issued on 29-Sep-2008, which came into effect on 29-Sep-2008.
- 2 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 3 Licence varied by notice 1106373, issued on 27-Nov-2009, which came into effect on 27-Nov-2009.
- 4 Licence varied by notice 1115183, issued on 09-Jun-2010, which came into effect on 09-Jun-2010.
- 5 Licence varied by notice 1128581, issued on 06-Jul-2011, which came into effect on 06-Jul-2011.
- 6 Licence varied by notice 1501583 issued on 02-Dec-2011
- 7 Licence varied by notice 1505686 issued on 11-May-2012
- 8 Licence varied by notice 1506566 issued on 19-Jun-2012
- 9 Licence varied by notice 1509331 issued on 17-Oct-2012
- 10 Licence varied by notice 1510489 issued on 21-Mar-2013
- 11 Licence varied by notice 1513352 issued on 05-Sep-2013
- 12 Licence varied by notice 1521308 issued on 17-Apr-2014
- 13 Licence varied by notice 1522197 issued on 13-Oct-2014
- 14 Licence varied by notice 1525579 issued on 16-Mar-2015
- 15 Licence varied by notice 1529807 issued on 13-Apr-2015
- 16 Licence varied by notice 1530069 issued on 04-May-2015
- 17 Licence varied by notice 1531157 issued on 12-Jun-2015
- 18 Licence varied by notice 1531304 issued on 15-Jun-2015
- 19 Licence varied by notice 1532828 issued on 12-Aug-2015
- 20 Licence varied by notice 1533987 issued on 09-Oct-2015