

Environment Protection Licence

Licence - 2122

| Licence Details | |
|------------------------|---------|
| Number: | 2122 |
| Anniversary Date: | 01-July |

| Licensee |
|---------------------------|
| AGL MACQUARIE PTY LIMITED |
| PRIVATE MAIL BAG 2 |
| MUSWELLBROOK NSW 2333 |

| Premises |
|-----------------------|
| LIDDELL POWER STATION |
| NEW ENGLAND HIGHWAY |
| LIDDELL NSW 2333 |

| Scheduled Activity |
|---------------------------|
| Coal works |
| Electricity generation |

| Fee Based Activity | Scale |
|--|---------------------------------------|
| Coal works | > 5000000 T annual handling capacity |
| Generation of electrical power from coal | > 4000 GWh annual generating capacity |

| Region |
|--|
| North - Hunter |
| Ground Floor, NSW Govt Offices, 117 Bull Street NEWCASTLE WEST NSW 2302 |
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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:

| |
|----------------------------------|
| AGL MACQUARIE PTY LIMITED |
| PRIVATE MAIL BAG 2 |
| MUSWELLBROOK NSW 2333 |

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 |
| Electricity generation | Generation of electrical power from coal | > 4000 GWh annual generating capacity |

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

| Premises Details |
|--|
| LIDDELL POWER STATION |
| NEW ENGLAND HIGHWAY |
| LIDDELL |
| NSW 2333 |
| AS SHOWN ON PLAN TITLED LIDDELL EPL - AGL, PLAN PRODUCED 10/10/2014, AERIAL PHOTO CAPTURED MARCH 2012. |

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

| Ancillary Activity |
|--|
| Chemical storage |
| Helicopter-related activities |
| Operation of emergency 1.5 MW diesel generator |
| Operation of gas turbine |
| Sewage treatment |

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Waste storage

A4 Information supplied to the EPA

- A4.1 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:

- a) 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
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

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 |
| 1 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | In the flue gases of unit 1 boiler labelled as "Unit 1 Boiler 1-2 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 2 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | In the flue gases of unit 2 boiler labelled as "Unit 2 Boiler 1-2 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 3 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | In the flue gases of unit 3 boiler labelled as "Unit 3 Boiler 3-4 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 4 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | In the flue gases of unit 4 boiler labelled as "Unit 4 Boiler 3-4 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 6 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | Diesel generator exhaust labelled as "diesel generator" on plan no. LD800474 amended 05 and dated 24/01/2007. |
| 7 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | Continuous monitoring equipment in flue gases of unit 1 boiler labelled as "Unit 1 Boiler 1-2 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |

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| | | | |
|----|---|---|--|
| 8 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | Continuous monitoring equipment in flue gases of unit 2 boiler labelled as "Unit 2 Boiler 1-2 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 9 | Discharge to air Air emissions monitoring | Discharge to air Air emissions monitoring | Continuous monitoring equipment in flue gases in flue gases of unit 3 boiler labelled as "Unit 1 Boiler 3-4 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 10 | Discharges to air Air emissions monitoring | Discharges to air Air emissions monitoring | Continuous monitoring equipment in flue gases of unit 4 boiler labelled as "Unit 4 Boiler 3-4 Chimney Stack" on plan No. LD800474 amended 05 and dated 24/01/2007. |
| 11 | Weather monitoring | | Weather monitoring station located at Liddell Power Station. Coordinates - 308267E and 641610N. |

P1.2 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 |
|------------------------|--------------------------------|--------------------------------|--|
| 12 | Discharge and Monitoring Point | Discharge and Monitoring Point | Water sampling platform located on the Outlet Canal of Liddell Power Station |
| 13 | Discharge and Monitoring Point | Discharge and Monitoring Point | The water quality sampling platform located at the Oil and Grit Trap weir overflow |
| 14 | Discharge and Monitoring Point | Discharge and Monitoring Point | The skimmer dam overflow spillway, located at the left abutment of the skimmer dam |

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 Load limits

L2.1 The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.

L2.2 The actual load of an assessable pollutant must be calculated in accordance with the relevant load

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calculation protocol.

| Assessable Pollutant | Load limit (kg) |
|-----------------------------------|-----------------|
| Arsenic (Air) | |
| Benzo(a)pyrene (equivalent) (Air) | |
| Coarse Particulates (Air) | |
| Fine Particulates (Air) | |
| Fluoride (Air) | |
| Lead (Air) | |
| Mercury (Air) | |
| Nitrogen Oxides (Air) | |
| Sulfur Oxides (Air) | |

Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.

L3 Concentration limits

L3.1 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.

L3.2 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table.

L3.3 Air Concentration Limits

POINT 1,2,3,4

| Pollutant | Units of measure | 100 percentile concentration limit | Reference conditions | Oxygen correction | Averaging period |
|-------------------|----------------------------|------------------------------------|----------------------|-------------------|---------------------|
| Chlorine | milligrams per cubic metre | 200 | Dry, 273K, 101.3kPa | 7% | 1 hour block |
| Hydrogen chloride | milligrams per cubic metre | 100 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |
| Total Fluoride | milligrams per cubic metre | 50 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |
| Nitrogen Oxides | milligrams per cubic metre | 1500 | Dry, 273K, 101.3kPa | 7% | 1 hour block |

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| | | | | | |
|--|----------------------------|-----|---------------------|----|---------------------|
| Type 1 and Type 2 substances in aggregate | milligrams per cubic metre | 5.0 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |
| Cadmium | milligrams per cubic metre | 1.0 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |
| Mercury | milligrams per cubic metre | 1.0 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |
| Solid Particles | milligrams per cubic metre | 100 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |
| Sulfuric acid mist and sulfur trioxide (as SO ₃) | milligrams per cubic metre | 100 | Dry, 273K, 101.3kPa | 7% | Special Frequency 1 |

POINT 6

| Pollutant | Units of measure | 100 percentile concentration limit | Reference conditions | Oxygen correction | Averaging period |
|------------------|----------------------------|------------------------------------|----------------------|-------------------|------------------|
| Nitrogen dioxide | milligrams per cubic metre | 90 | Dry, 273K, 101.3kPa | 7% | 1 hour block |

L3.4 Water and/or Land Concentration Limits

POINT 12,13,14

| 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 |
| pH | pH | | | | 6.5-9.0 |

Note: Special Frequency 1 means - 1 hour, or the minimum sampling period specified in the relevant test method referred to in Schedule 5, Part 1 Test Methods of the *Protection of the Environment Operations (Clean Air) Regulation 2010*.

Note: Subject to the completion of a Pollution Reduction Program on or before 3 July 2017 (licence condition U5), the emissions from Unit 1 to 4 boiler stacks are not required to meet the Group 5 emission standard for nitrogen oxides.

L3.5 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.

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- L3.6 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L4 Waste

- L4.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

This condition does not limit any other conditions in this licence.

| Code | Waste | Description | Activity | Other Limits |
|------|--|---|-------------------------------------|---|
| NA | Waste Water and Sludges | Lime and gypsum residues from drinking water treatment, as defined by and meeting the requirements of The Lime and Gypsum Residues from Drinking Water Treatment Exemption, as in-force from time to time | Waste storage Capping of Ash Dam | Can also be used for other fit-for-purpose rehabilitation works at the premises |
| NA | Drilling mud and/or muddy waters from drilling operations | As defined by and meeting the requirements of the Treated Drilling Mud Order and Exemption, as in-force from time to time | Waste storage Capping of Ash Dam | Can also be used for other fit-for-purpose engineering fill and/or earthworks at the premises |
| NA | Organics | Compost, manure and mulch as defined by and meeting the requirements of the Compost, Manure, Mulch and Pasteurised Garden Organics Order and Exemption, as in-force from time to time | Waste storage Capping of Ash Dam | Can also be used for other fit-for-purpose rehabilitation works at the premises |
| NA | Biosolids categorised as unrestricted use, or as restricted use 1, 2 or 3, in accordance with the criteria set out in the biosolids guidelines | As defined by and meeting the requirements of the Biosolids Order and Exemption, as in-force from time to time | Waste storage Capping of Ash Dam | Can also be used for other fit-for-purpose rehabilitation works at the premises |
| NA | Excavated natural | As defined by and | Waste storage | Can also be used |

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| | | | | |
|----|-----------------------------------|---|-------------------------------------|---|
| | material | meeting the requirements of the Excavated Natural Material Order and Exemption, as in-force from time to time | Capping of Ash Dam | for other fit-for-purpose engineering fill and/or earthworks at the premises |
| NA | Virgin excavated natural material | As defined by the Protection of the Environment Operations Act, as in-force from time to time | Waste storage Capping of Ash Dam | Can also be used for other fit-for-purpose engineering fill and/or earthworks at the premises |

L4.2 Except as provided by any other condition of this licence, only the following types of waste that have been generated on the premises may be treated, reprocessed or disposed of at the premises:

- Acid solutions or acids in solid form,
- Asbestos,
- Fly ash and bottom ash,
- Water treatment residual chemicals
- Boiler cleaning residues,
- Lime,
- Gypsum,
- Demineralisation resins,
- Sediment basin clays
- Filter bags,
- Treated sewage effluent,
- Ash line poly pipe,
- Cooling tower sediments,
- and any other waste material approved in writing by the EPA.

L5 Potentially offensive odour

L5.1 No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

L6 Other limit conditions

L6.1 Start-up fuel specifications

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All start-up fuel used at the premises must conform with the Australian Standard for Automotive Diesel Fuel (AS 3570 - 1998) and as updated from time to time.

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.

Note: Page Break.

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 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.

O3.3 Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.

O4 Processes and management

Assess and Manage Coal Supply

O4.1 Prior to burning coal fuel supplies, the licensee must:

- a) assess the sulphur content of each coal fuel supply;
- b) operate a coal delivery system that can manage the coal delivery and stockpile management process in a manner that would minimise any exceedence of the sulphur dioxide gas emission trigger value of

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600ppm and described in condition R4.1.

Note: This condition requires the licensee to ensure that all coal fuel for combustion is blended and managed to reduce the concentration of sulphur dioxide emissions during combustion.

O5 Waste management

O5.1 The licensee must not receive any liquid or non liquid wastes that are not expressly authorised by this licence without the EPA's prior written approval.

O6 Other operating conditions

O6.1 The sulphur content of coal as fired in the boilers must not exceed 1.0% by weight on a monthly average basis.

O6.2 If, due to emergency circumstances, there is a possibility of interruption to electricity supply, limits prescribed by this licence may be temporarily exceeded provided (i) the Environment Protection Authority is notified, by the licensee, of the situation at the earliest opportunity, and (ii) the Environment Protection Authority concurs with such emergency operation.

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:

- a) in a legible form, or in a form that can readily be reduced to a legible form;
- b) kept for at least 4 years after the monitoring or event to which they relate took place; and
- c) 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:

- a) the date(s) on which the sample was taken;
- b) the time(s) at which the sample was collected;
- c) the point at which the sample was taken; and
- d) 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:

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M2.2 Water and/ or Land Monitoring Requirements

POINT 12,13

| Pollutant | Units of measure | Frequency | Sampling Method |
|-------------------------------------|--------------------------------|--------------------------------|-----------------|
| Ammonia | milligrams per litre | Fortnightly | Grab sample |
| Antimony | milligrams per litre | Fortnightly | Grab sample |
| Arsenic | milligrams per litre | Fortnightly | Grab sample |
| Barium | milligrams per litre | Fortnightly | Grab sample |
| Beryllium | milligrams per litre | Fortnightly | Grab sample |
| Boron | milligrams per litre | Fortnightly | Grab sample |
| Cadmium | milligrams per litre | Fortnightly | Grab sample |
| Chlorine | milligrams per litre | Fortnightly | Grab sample |
| Chromium (total) | milligrams per litre | Fortnightly | Grab sample |
| Chromium (VI) Compounds | milligrams per litre | Fortnightly | Grab sample |
| Cobalt | milligrams per litre | Fortnightly | Grab sample |
| Conductivity | microsiemens per centimetre | Fortnightly | Grab sample |
| Copper | milligrams per litre | Fortnightly | Grab sample |
| Fluoride | milligrams per litre | Fortnightly | Grab sample |
| Lead | milligrams per litre | Fortnightly | Grab sample |
| Manganese | milligrams per litre | Fortnightly | Grab sample |
| Mercury | milligrams per litre | Fortnightly | Grab sample |
| Methylene Blue Active Substances | milligrams per litre | Fortnightly | Grab sample |
| Molybdenum | milligrams per litre | Fortnightly | Grab sample |
| Nickel | milligrams per litre | Fortnightly | Grab sample |
| Nitrogen (total) | milligrams per litre | Fortnightly | Grab sample |
| Oil and Grease | milligrams per litre | Weekly during any discharge | Grab sample |
| pH | pH | Daily | Grab sample |
| Phosphorus | milligrams per litre | Fortnightly | Grab sample |
| Selenium | milligrams per litre | Fortnightly | Grab sample |
| Sulfur | milligrams per litre | Fortnightly | Grab sample |
| Temperature | degrees Celsius | Fortnightly | In situ |
| Tin | milligrams per litre | Fortnightly | Grab sample |
| Total dissolved solids | milligrams per litre | Fortnightly | Grab sample |
| Total organic carbon | milligrams per litre | Fortnightly | Grab sample |
| TSS | milligrams per litre | Fortnightly | Grab sample |
| Vanadium | milligrams per litre | Fortnightly | Grab sample |
| Zinc | milligrams per litre | Fortnightly | Grab sample |

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POINT 14

| Pollutant | Units of measure | Frequency | Sampling Method |
|-------------------------|-----------------------------|-----------------------------|-----------------|
| Arsenic | milligrams per litre | Weekly during any discharge | Grab sample |
| Boron | milligrams per litre | Weekly during any discharge | Grab sample |
| Cadmium | milligrams per litre | Weekly during any discharge | Grab sample |
| Chromium (total) | milligrams per litre | Weekly during any discharge | Grab sample |
| Chromium (VI) Compounds | milligrams per litre | Weekly during any discharge | Grab sample |
| Copper | milligrams per litre | Weekly during any discharge | Grab sample |
| Electrical conductivity | microsiemens per centimetre | Weekly during any discharge | Grab sample |
| Fluoride | milligrams per litre | Weekly during any discharge | Grab sample |
| Lead | milligrams per litre | Weekly during any discharge | Grab sample |
| Mercury | milligrams per litre | Weekly during any discharge | Grab sample |
| Oil and Grease | milligrams per litre | Weekly during any discharge | Grab sample |
| pH | pH | Weekly during any discharge | Grab sample |
| Selenium | milligrams per litre | Weekly during any discharge | Grab sample |
| TSS | milligrams per litre | Weekly during any discharge | Grab sample |
| Zinc | milligrams per litre | Weekly during any discharge | Grab sample |

M2.3 Air Monitoring Requirements**POINT 1,2,3,4**

| Pollutant | Units of measure | Frequency | Sampling Method |
|-------------------|----------------------------|-----------|----------------------|
| Cadmium | milligrams per cubic metre | Yearly | TM-12 |
| Carbon dioxide | milligrams per cubic metre | Yearly | TM-24 |
| Chlorine | milligrams per cubic metre | Yearly | TM-7 & TM-8 |
| Copper | milligrams per cubic metre | Yearly | TM-12, TM-13 & TM-14 |
| Dry gas density | kilograms per cubic metre | Yearly | TM-23 |
| Hydrogen chloride | milligrams per cubic metre | Yearly | TM-7 & TM-8 |
| Moisture content | percent | Yearly | TM-22 |

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| | | | |
|--|----------------------------|------------|----------------------|
| Molecular weight of stack gases | grams per gram mole | Yearly | TM-23 |
| Nitrogen Oxides | milligrams per cubic metre | Yearly | TM-11 |
| Oxygen (O ₂) | percent | Yearly | TM-25 |
| Solid Particles | milligrams per cubic metre | Yearly | TM-15 |
| Sulfuric acid mist and sulfur trioxide (as SO ₃) | milligrams per cubic metre | Yearly | TM-3 |
| Sulphur dioxide | milligrams per cubic metre | Yearly | TM-4 |
| Temperature | degrees Celsius | Yearly | TM-2 |
| Total Fluoride | milligrams per cubic metre | Yearly | TM-9 |
| Type 1 and Type 2 substances in aggregate | milligrams per cubic metre | Yearly | TM-12, TM-13 & TM-14 |
| Undifferentiated Particulates | percent Opacity | Continuous | CEM-1 |
| Velocity | metres per second | Yearly | TM-2 |
| Volatile organic compounds | milligrams per cubic metre | Yearly | TM-34 |
| Volumetric flowrate | cubic metres per second | Yearly | TM-2 |

POINT 7,8,9,10

| Pollutant | Units of measure | Frequency | Sampling Method |
|-----------------|-------------------|------------|-----------------|
| Nitrogen Oxides | parts per million | Continuous | CEM-2 |
| Opacity | percent | Continuous | CEM-1 |
| Sulphur dioxide | parts per million | Continuous | CEM-2 |

Note: USEPA Method 1 - *Sample and Velocity Traverses for Stationary Sources (Alternate Procedure)* is an accepted method in determining gas flow in ducts upstream of the sampling planes on Points 1,2,3 and 4.

M2.4 Samples taken pursuant to a requirement in this licence to monitor the volume, mass or concentration of pollutants, must be analysed and reported in accordance with the laboratory accreditation requirements set out in section 2.1.3 of the Load Calculation Protocol.

The Load Calculation Protocol is the Protocol referred to in clause 15 of the Protection of the Environment Operations (General) Regulation 2009. A copy of the Protocol was published in the Government Gazette on 25 June 1999 and can be purchased from the EPA or viewed at <http://www.environment.nsw.gov.au>.

Note: In relation to the table for monitoring points 7,8,9,10, the licensee must ensure that at least two(2) continuous monitors are operating and accurately measuring nitrogen oxides, opacity and sulphur dioxide in flue gases during the reporting period.

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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 Testing methods - load limits

Note: Division 3 of the *Protection of the Environment Operations (General) Regulation 2009* requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.

M5 Weather monitoring

Weather Monitoring

- M5.1 For Monitoring Point 11 the licensee must monitor (by sampling and obtaining results of analysis) the parameter specified in column 1. The licensee must use the sampling method, units of measure, averaging and sample frequency, specified opposite in the other columns:

| Parameter | Units of Measure | Averaging Period | Frequency | Sampling Method |
|---------------------------|------------------|------------------|--------------|-----------------|
| Wind direction @ 10m | Degrees | 1 hour | continuously | AM-2 & AM-4 |
| Sigma Theta @ 10m | Degrees | 1 hour | continuously | AM-2 & AM-4 |
| Ambient Temperature @ 10m | Degrees Celsius | 1 hour | continuously | AM-4 |

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|---------------------|-----|--------|--------------|-------------|
| Humidity | % | 1 hour | continuously | AM-4 |
| Wind Speed @ 10m | m/s | 1 hour | continuously | AM-2 & AM-4 |

M6 Recording of pollution complaints

- M6.1 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.
- M6.2 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.
- M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M6.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M7 Telephone complaints line

- M7.1 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.
- M7.2 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.
- M7.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

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 Statement of Compliance,
 - a Monitoring and Complaints Summary,
 - a Statement of Compliance - Licence Conditions,
 - a Statement of Compliance - Load based Fee,

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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.

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 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 Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:

- a) the assessable pollutants for which the actual load could not be calculated; and
- b) the relevant circumstances that were beyond the control of the licensee.

R1.7 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.

R1.8 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.

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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

Air Emission trigger value exceedences at Points 7,8,9 and 10

- R4.1 For each of the pollutants required to be continuously monitored at Points 7,8,9 and 10 the licensee must

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provide a report to the EPA if the concentration values of any of the following pollutants are exceeded:

- a) Opacity - 20% opacity;
- b) Sulphur Dioxide - 600ppm;
- c) Nitrogen oxides - 700ppm

The report must be provided to the EPA's Regional Manager, Hunter within thirty (30) days of the concentration value(s) being exceeded and include the following information:

- a) Details of the date and times of the exceedence;
- b) The duration of the exceedence;
- c) The reason(s) for the exceedence; and
- d) Actions to be taken to address any future exceedence(s).

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 Special Conditions

E1 Use of waste mineral oils as an alternate fuel

- E1.1 Waste mineral oils generated on the premises can be used as fuel under the following restrictions:
 - a) must only be fed to the boiler unit(s) during coal firing and at a maximum feed rate of less than or equal to 4% of the coal feed rate;
 - b) must not exceed the 100 percentile concentration limit of 0.5% of sulfur by weight.

E2 Annual Performance Report and Mass Emissions and Production Report

- E2.1 The licensee must submit an Annual Performance Report, and a Mass Emissions and Production Report with each Annual Return.

Annual Performance Report

This report must include an assessment of all air emission monitoring data obtained by the licensee during the reporting period. The report should include but need not be limited to the following:

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- a) tabulated results of all monitoring data required to be collected by this licence;
- b) a graphical presentation of data in order to show variability and/or trends. This should include, at a minimum, data over the previous three(3) reporting periods;
- c) a graphical presentation of monitoring data against licence limit conditions;
- d) any statistically significant variations or anomalies in the data should be highlighted and explained;
- e) Mega watt (MW) load of each of the boilers at the time of emission sampling;
- f) an analysis and interpretation of any deficiencies in environmental performance identified by the monitoring data; and
- g) any remedial action taken or proposed to be taken to address any deficiencies;

Mass Emissions and Production Report

This report must include mass emissions and production for the reporting period that includes:

- a) Total mass of particulates, sulphur dioxide, carbon dioxide, oxides of nitrogen and fluoride emitted to atmosphere;
- b) Total energy production; and
- c) Total consumption of coal, waste mineral oils and startup fuels

Note 1: This data can be presented graphically and also include historical mass emissions and production.

Note 2: The requirement to provide the Annual Performance Report and the Mass Emissions and Production Report commence with the 2013/2014 Annual Return reporting period.

E3 Water Quality and Volume Monitoring Station

- E3.1 The licensee must install volume flow monitoring equipment at Skimmer Dam Spillway, Monitoring Point 14, by no later than 31 July 2018.

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Dictionary

General Dictionary

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| 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 Bernie Weir

Environment Protection Authority

(By Delegation)

Date of this edition: 26-April-2000

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End Notes

- 1 Licence varied by notice 1004079, issued on 30-May-2003, which came into effect on 24-Jun-2003.
- 2 Licence varied by notice 1032951, issued on 02-Apr-2004, which came into effect on 27-Apr-2004.
- 3 Licence varied by notice 1037103, issued on 21-Jun-2004, which came into effect on 16-Jul-2004.
- 4 Licence varied by notice 1039422, issued on 26-Oct-2004, which came into effect on 20-Nov-2004.
- 5 Licence varied by notice 1064038, issued on 09-May-2007, which came into effect on 09-May-2007.
- 6 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 7 Licence varied by notice 1093943, issued on 10-Mar-2009, which came into effect on 10-Mar-2009.
- 8 Licence fee period changed by notice 1101276 approved on .
- 9 Licence varied by notice 1101344, issued on 18-May-2009, which came into effect on 18-May-2009.
- 10 Licence varied by admin corrections to annual return, issued on 02-Jul-2009, which came into effect on 02-Jul-2009.
- 11 Licence varied by notice 1104682, issued on 15-Sep-2009, which came into effect on 15-Sep-2009.
- 12 Licence varied by notice 1110855, issued on 02-Feb-2010, which came into effect on 02-Feb-2010.
- 13 Licence varied by notice 1509106 issued on 24-Jun-2013
- 14 Licence varied by notice 1515942 issued on 20-Sep-2013
- 15 Licence varied by notice 1519337 issued on 31-Jan-2014
- 16 Licence transferred through application 1524623 approved on 29-Aug-2014 , which came into effect on 02-Sep-2014
- 17 Licence varied by notice 1531453 issued on 29-Jun-2015
- 18 Licence varied by notice 1534817 issued on 15-Feb-2016
- 19 Licence varied by notice 1543814 issued on 23-Jan-2017