Environment Protection Licence - Protection of the Environment Operations Act 1997

Licence Variation

Section 58(5) Protection of the Environment Operations Act 1997



DELTA ELECTRICITY, Trading as DELTA ELECTRICITY, ABN 67 139 819 642, LOCKED BAG 1, PORTLAND NSW 2847 STANDARD POST

Attention: Mr. NINO DI FALCO

Notice Number 1033370 File Number 260932 Date 13-May-2005

NOTICE OF VARIATION OF LICENCE 766

BACKGROUND

- A. DELTA ELECTRICITY t/as DELTA ELECTRICITY ("the licensee") is the holder of environment protection licence 766 for Scheduled Activity - Premises Based ("the licence") under the Protection of the Environment Operations Act 1997 ("the POEO Act").
- B. Licence varied as an outcome of the Licence Review conducted by the EPA as required under s 78 of the POEO Act 1997.

VARIATION OF LICENCE 766

- 1. By this notice the EPA varies licence 766 as set out in the Appendix. The Appendix is a copy of the licence marked with the variations that are made to it by this notice.
- 2. The variations to the licence are indicated in the following way:
 - if a strike through mark appears through any word or other text (eg. Solids or) this indicates that the word or other text is deleted from the licence by this notice; and

Environment Protection Licence - Protection of the Environment Operations Act 1997

Licence Variation



Section 58(5) Protection of the Environment Operations Act 1997

- if a double underline appears under any word or other text (eg. <u>must be treated</u>) this indicates that the word or other text is added to the licence by this notice.
- 3. Except, as provided by s84(2) of the POEO Act, the variations to the licence by this notice begin to operate at the expiry of the period of 21 days from when you get notice of the variations, unless another date is specified in this notice.
- 4. Note: Section 84(2) provides that a variation to a licence does not operate until
 - the expiry of the period of 21 days after notice of the decision to vary the licence is given to the licensee, or
 - if an appeal against the decision is lodged, until the Land and Environment Court determines the appeal, or
 - the licensee notifies the EPA in writing that no appeal is to be made against the decision to vary the licence,

whichever first occurs.

5. This notice is issued under section 58(5) of the Protection of the Environment Operations Act 1997.

Mr Darryl Clift Head Regional Operations Unit Central West (by Delegation)

INFORMATION ABOUT THIS NOTICE

- Section 287 of the Act enables appeals to be made in connection with decisions about a licence application within 21 days after notice of the decision is given to the applicant.
- Details provided in this notice will be available on the EPA's Public Register in accordance with section 308 of the Protection of the Environment Operations Act 1997.



Environment Protection Authority

- Licence number: 766
- File number: 260932
- Licence Anniversary Date: 01-January
- Review date not later than 2023-Mar-20052008

Section 55 Protection of the Environment Operations Act 1997

Environment Protection Licence

Licence Type Premises

Licensee DELTA ELECTRICITY LOCKED BAG 1 PORTLAND NSW 2847

Licensed Premises

MOUNT PIPER POWER STATIONS 350 BOULDER ROAD PORTLAND NSW 2847 AND INCLUDING WALLERAWANG POWER STATION 1 MAIN STREET WALLERAWANG NSW 2845

Fee Based Activity	Scale
Electricity Generation - Generation of electrical	> 4000 - Gwh generated
power from coal (34[a])	

EPA Region

Central West 219 Howick Street BATHURST NSW 2795 Phone: 02 6332 7600 Fax: 02 6332 2387

PO Box 1388 BATHURST NSW 2795



A3	Other activities	3
A4	Information supplied to the EPA	3
P1	Location of monitoring/discharge points and areas	3
L3	Concentration limits	5
L4	Volume and mass limits	8
L5	Waste	8
M2	Requirement to monitor concentration of pollutants discharged	9
M6	Requirement to monitor volume or mass	13
M7	Requirement to monitor impurities in solid alternative fuels	13
M8	Requirement to monitor weather	14
Pollu	ITION STUDIES AND REDUCTION PROGRAMS	14
SPECI	AL CONDITIONS	15
E1	Solid alternative fuel	15
Gen	eral Dictionary	



A3 Other activities

A2 1	Not applicable
A3. I	посаррисарие.

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

Chemical Storage Facilities

Coal Works

Crushing, Grinding or Separating Works

Waste Facilities - large-scale landfilling

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.

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.



EPA Identi- fication no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
11	Air emissions monitoring Discharge to air	Air emissions monitoring Discharge to air	Mt Piper Power Station Boiler 1 <mark>. identified as</mark> <u>"EPA ID 11" on a map provided to the EPA in</u> a letter dated 18 March 2005 .
12	Air emissions monitoring Discharge to air	Air emissions monitoring Discharge to air	Mt Piper Power Station Boiler 2 <mark>. identified as</mark> "EPA ID 12" on a map provided to the EPA in a letter dated 18 March 2005.
13	Air emission monitoring Discharge to air	Air emission monitoring Discharge to air	Wallerawang Power Station Boiler 7 identified as "EPA ID 13" on a map provided to the EPA in a letter dated 18 March 2005
14	Air emissions monitoring Discharge to air	Air emissions monitoring Discharge to air	Wallerawang Power Station Boiler 8 identified as "EPA ID 14" on a map provided to the EPA in a letter dated 18 March 2005
15	Ambient air monitoring		Blackmans Flat location, identified as "EPA ID 15" on a map provided to the EPA in a letter dated 18 March 2005
16	Ambient air monitoring		Off Brays Lane <mark>,</mark> Wallerawang <u>location,</u> identified as "EPA ID 16" on a map provided to the EPA in a letter dated 18 March 2005
17	Ambient air monitoring		Newnes Plateau location, identified as "EPA ID 17" on a map provided to the EPA in a letter dated 18 March 2005
19	AmbientWeather monitoring		Mount Piper Power Station Weather Station identified as "EPA ID 19" on a map provided to the EPA in a letter dated 18 March 2005

Air

- 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.
- P1.3 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.



EPA identi- fication no.	Type of monitoring point	Type of discharge point	Description of location
1	Volume monitoring <mark>EffuentEffluent</mark> quality monitoring Discharge to waters	Volume monitoring EffuentEffluent monitoring Discharge to waters	Discharge to Coxs River from Unit 7 cooling tower identified as "EPA ID 1" on a map provided to the EPA in a letter dated 18 March 2005.
2 <u>3</u>	Volume monitoring Effluent quality monitoring Discharge to waters	Volume monitoring Effluent quality monitoring Discharge to waters	Overflow drain from settling pond which receives effluent from the Oil & Grease trap., identified as "EPA ID 3" on a map provided to the EPA in a letter dated 18 March 2005.
3 <u>4</u>	Volume monitoring EfluentEffluent monitoring Discharge to waters	Volume monitoring EfluentEffluent monitoring Discharge to waters	Caustic Injection Injection plant discharge to Coxs River, identified as "EPA ID 4" on a map provided to the EPA in a letter dated 18 March 2005.
4 <u>5</u>	Volume monitoring Effluent quality monitoring DischargeDischareg waters	Volume monitoring Effluent quality monitoring DischargeDischared to waters	Discharge to Coxs River from No 8 cooling tower blowdown-, identified as "EPA ID 5" on a map provided to the EPA in a letter dated 18 March 2005.
5 <mark>6</mark>	Total volume monitoring Effluent quality monitoring Dischareg <mark>Discharge</mark> to waters	Total volume monitoring Effluent quality monitoring DischaregDischarge to waters	Overflow drain from southern retention basin to Coxs River <u>identified as "EPA ID</u> 6" on a map provided to the EPA in a letter dated 18 March 2005
6 <u>7</u>	Total volume <mark>Ambient</mark> water monitoring Effluent quality monitoring Discharge to waters	Total volume monitoring Effluent quality monitoring Discharge to waters	Final holding pond monitoring station to Neubecks Creek, identified as "EPA ID 7" on a map provided to the EPA in a letter dated 18 March 2005.
7 <u>8</u>	Ambient <mark>water monitoring</mark>		Main Street Road Bridge upstream of all discharge points in the Wallerawang Power Station, identified as "EPA ID 8" on a map provided to the EPA in a letter dated 18 March 2005.
8 <u>18</u>	AmbientVolume monitoring Effluent quality monitoring Discharge to water	<u>Volume monitoring</u> Effluent guality monitoring Discharge to water	Railway Bridge in the receiving waters downstream of points 1,2,3 & 5 at Wallerawang Power Station, identified as "EPA ID 18" on a map provided to the EPA in a letter dated 18 March 2005.
<mark>18</mark>	Volume monitoring Effluent quality monitoring Discharge to air	Volume monitoring Effluent quality monitoring Discharge to air	The overflow drain from the coal stockpile settling basin at Wallerawang Power Station to the Coxs River

Water and land

L3 **Concentration limits**

- L3.1 For each monitoring/discharge point or utilisation area specified in the table\s 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.
- Where a pH quality limit is specified in the table, the specified percentage of samples must be L3.2 within the specified ranges.
- To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other L3.3 than those specified in the table/s.



Air

Pollutant	Units of measure	100 percentile concentration limi
Cadmium	mg/m3	1.0
Chlorine	mg/m3	200
Mercury	mg/m3	1.0
Nitrogen Oxides	g/m3	2.5
Hydrogen chloride	mg/m3	100
Solid Particles	mg/m3	250
<mark>Sulphuric<mark>Sulfuric</mark> acid mist and/or sulphur<mark>sulfur</mark> trioxide (as SO3)</mark>	mg/m3	100
Total Fluoride	mg/m3	50
Hazardous substances	mg/m3	5.0

Water and Land

POINT 1

POINTS 1,4

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
рН	рН				6.5-8.5
Sulfate	mg/L				1200

POINT 2

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	<mark>mg/L</mark>				<mark>10</mark>
<mark>рН</mark>	<mark>pH</mark>				<mark>6.5-8.5</mark>
Total Suspended Solids	<mark>mg/L</mark>				<mark>30</mark>

POINT 3

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
рН	pН				6.5-8.5
Sulfate	mg/L				1200
Total Suspended SolidsTotal	mg/L				30
suspended solids					

POINT 4

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
<mark>рН</mark>	<mark>pH</mark>				<mark>6.5-8.5</mark>
Sulfate	<mark>mg/L</mark>				<mark>1200</mark>



POINT 5

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	Visible <mark>mg/L</mark>				Nil <mark>10</mark>
рН	рН				6.5-8.5

POINT 18

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	Visible <mark>mg/L</mark>				Nil <mark>10</mark>
pH	pН				6.5-8.5
Total Suspended SolidsTotal suspended solids	mg/L				30

L3.4 The reference basis for the air pollutants specified in condition L3.3 for points 11, 12, 13, 14 are as follows:

For Nitrogen oxides (NO2-and/or NO) and Solid particles: dry, 273 K, 101.3 kPa, 7% O2.
 L3.4 The monitoring results undertaken under reference bases and collected in compliance with condition M2.1 can be used to determine compliance with the 100% concentration limits specified in condition L3.3.
 L3.5 Monitoring at points 11, 12, 13 and 14 must be undertaken under the following reference basis for the pollutants specified in condition L3.3;

For Sulphuric acid mist (H₂SO₄) and/or sulphur trioxide (SO₃), chlorine (Cl₂), Hydrogen chloride (HCl), Total Fluoride, Hazardous substances, Cadmium (Cd) and Mercury (Hg): dry, 273 K, 101.3 kPa.

For Nitrogen oxides (NO2 and/or NO) and Solid particles: dry, 273 K, 101.3 kPa, 7% O2.

- L3.56 The concentration of an impurity contained in the solid alternative fuel must not exceed the concentration specified for that impurity in the table.
- L3.6—7—For the purposes of the tables above Hazardous substances means the aggregate of Type I and Type II substances (Sb, As, Be, Cd, Cr, Co, Pb, Mn, Hg, Ni, Se, Sn or and V) and Cu.
- L3.7—8 The pollutants that are authorised to be discharged by condition L3, in addition to the tables noted above:
 - (a) include the substances listed in Schedule 2 to the Clean Waters Regulation 1972 (which is deemed to be a table for the purposes of this condition); and
 - (b) must not cause the concentration of that substance in any part of the receiving waters exceed the concentrations listed in Schedule 2 to the Clean Waters Regulation 1972 with the exception of:
 - filterable manganese;
 - filterable iron; and
 - sulfate



Only when the natural levels of filtrable iron, filtrable manganese and sulfate in the receiving waters exceed the levels of those substances prescribed in the Clean Waters Regulations.

L4 Volume and mass limits

- L4.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
 - (a) liquids discharged to water; or;
 - (b) solids or liquids applied to the area;

must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of measure	Volume/Mass Limit
1	kL/week	70000
2	kL/week	70000
3	kL/week	70000
4	kL/week	105000
<mark>6</mark>	kL/week	<mark>24500</mark>

<u>L4.2</u>	The limits set out in the above table refer to dry weather discharges limits only and do not apply
	during wet weather.
L4.2	Notwithstanding the volume limits specified in condition L4.1, the combined volume discharged
	from point(s) 1 and 4 shall not exceed 105,000 kL per week.
L4.3	The volume/mass limits for point(s) 1 and 4 specified in condition L4.1 apply for dry weather
	conditions only.
L5	Waste
L5.1	The following wastes generated on the premises may be disposed of to the ash disposal area at Mt

 Piper Power Station or within the ash dam or within the ash dam catchment at Wallerawang Power Station.

 L5.1
 The licensee must not cause, permit or allow any waste generated outside the premises to be

received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.

5.2 Only the following types of waste may be disposed of at the premises:

(i)	Ash <mark>.</mark>
(ii)	Mill pyrites , demineralisation
(iii)	Demineralisation and polisher plant effluents, chemical
(iv)	Chemical clean solutions, cooling
(v)	Cooling tower sediments <mark>, ion</mark>
(vi)	lon exchange resins <mark>, fabric</mark>



(vii)	Fabric	filter bags	, brine	
()	Distant and	a subscription of the second second		the state of the second second

- (viii) <u>Brine</u> conditioned fly-ash, biomass
- (ix) <u>Biomass</u> co-firing ash, settling
- (x) <u>Settling</u> pond sediments, oil
 (xi) <u>Oil</u> and grit trap sediments.
- Any other material approved in writing by the EPA.
- L5.3 The wastes listed in condition L5.2 Brine generated on site may must only be stored on disposed of to the ash disposal area at Mt Piper Power Station or within the premises in impermeable ponds ash dam or within the ash dam catchment at Wallerawang Power Station.

O4 Solid alternative fuel

```
O4.1 For the purposes of this Licence, solid alternative fuel means timber products that are either:-
```

- Biomass that is sustainably harvested as defined in "Greenhouse Gas Emissions from Electricity Supplied in NSW: Emissions Workbook, October 2000, Ministry of Energy and Utilities"; or
- Recycled timber products obtained from manufacturing, construction and demolition sources that comply with the fuel specification L3.4 for hazardous substances; or
- In accordance with Regulation 8 (Special requirements wood wastes) of Division 2.2 (Eligible renewable energy sources) in Part 2 of the Renewable Energy (Electricity) Regulations 2001 and Renewable Energy (Electricity) Act 2000.
- O4.2 Solid alternative fuel may only be fed to the boiler during coal firing.
- O4.3 Solid alternative fuel may only be fed to the boiler at a feed rate of less than or equal to 5 % weight of the coal feed rate.

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:

POINT 1

POINTS 1,4

Pollutant	Units of measure	Frequency	Sampling Method
SulfateConductivity	mg/L <mark>uS/cm</mark>	Weekly	Representative sample
Total Suspended Solids <mark>Selenium</mark>	mg/L <mark>uS/cm</mark>	Weekly	Representative sample
pH <mark>Sulfate</mark>	pH <mark>mg/L</mark>	Weekly	Representative sample

POINT 2

PollutantTotal suspended solids	<mark>Units of</mark> measure <u>mg/L</u>	FrequencyWeekly	Sampling MethodRepresentative sample
Oil and Grease	mg/L	Weekly	Representative sample
Total Suspended Solids	mg/L	Weekly	Representative sample
рН	рН	Weekly	Representative sample



POINT 3

Pollutant	Units of measure	Frequency	Sampling Method
Boron	mg/L	<u>Weekly during any</u> <u>discharge</u>	Representative sample
Conductivity	uS/cm	<u>Weekly during any</u> <u>discharge</u>	Representative sample
Filterable iron	mg/L	<u>Weekly during any</u> <u>discharge</u>	Representative sample
Filterable manganese	mg/L	<u>Weekly during any</u> <u>discharge</u>	Representative sample
<u>Fluoride</u>	mg/L	<u>Weekly during any</u> <u>discharge</u>	Representative sample
<u>Selenium</u>	mg/L	<u>Weekly during any</u> <u>discharge</u>	Representative sample
Sulfate	mg/L	<u>Weekly during any</u> <u>discharge</u>	Representative sample
Total suspended solids	mg/L	<u>Weekly during any</u> discharge	Representative sample
<u>pH</u>	<u>рН</u>	<u>Weekly during any</u> <u>discharge</u>	Representative sample

POINTS 5,6,18

Pollutant	<u>Units of</u> measure	Frequency	Sampling Method
Conductivity	uS/cm	Monthly during discharge	Representative sample
<u>Selenium</u>	mg/L	Monthly during discharge	Representative sample
Sulfate	mg/L	Monthly during discharge	Representative sample
Total suspended solids	mg/L	Monthly during discharge	Representative sample
<mark>рН</mark>	<mark>рН</mark>	Monthly during discharge	Representative sample

POINTS 7,8

Pollutant	<u>Units of</u> measure	Frequency	Sampling Method
Boron	mg/L	Monthly	Representative sample
Filterable ironConductivity	<mark>mg/L</mark> uS/cm	MonthlyWeekly	Representative sample
Filterable manganese	<mark>mg/L</mark>	Monthly	Representative sample
Fluoride	<mark>mg/L</mark>	Weekly	Representative sample
Selenium	mg/L	Monthly	Representative sample
Sulfate	<mark>mg/L</mark>	Weekly	Representative sample
Total Suspended Solids	mg/L	Weekly	Representative sample
<mark>рН</mark>	<mark>рН</mark>	Weekly	Representative sample

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Sulfate	mg/L	Weekly	Representative sample
Total Suspended Solids	mg/L	Weekly	Representative sample
<mark>рН</mark>	<mark>рН</mark>	Weekly	Representative sample

POINT 5

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Weekly	Inspection
Total Suspended Solids	<mark>mg/L</mark>	Weekly	Representative sample
<mark>рН</mark>	<mark>pH</mark>	Weekly	Representative sample



POINT 6

Pollutant	Units of	Frequency	Sampling Method
	measure		
Chloride	<mark>mg/L</mark>	Quarterly	Representative sample
Conductivity	<mark>uS/cm</mark>	Monthly	Representative sample
Sulfate	<mark>mg/L</mark>	Quarterly	Representative sample
Total Suspended Solids	<mark>mg/L</mark>	Quarterly	Representative sample
<mark>рН</mark>	<mark>рН</mark>	Monthly	Representative sample

POINT 7

Pollutant	Units of measure	Frequency	Sampling Method
Boron	mg/L	Monthly	Representative sample
Filterable iron	mg/L	Monthly	Representative sample
Filterable manganese	mg/L	Monthly	Representative sample
Fluoride	mg/L	Monthly	Representative sample
Selenium	mg/L	Monthly	Representative sample
Sulfate	mg/L	Weekly	Representative sample

POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
Boron	mg/L	Monthly	Representative sample
Filterable iron	mg/L	Monthly	Representative sample
Filterable manganese	mg/L	Monthly	Representative sample
Fluoride	mg/L	Monthly	Representative sample
Selenium	mg/L	Monthly	Representative sample
Sulfate	mg/L	Weekly	Representative sample

POINTS 11,12,13,14

Pollutant	Units of measure	Frequency	Sampling Method
Carbon dioxide	<mark>%</mark>	<u>Yearly</u>	<u>TM-24</u>
Chlorine	mg/m3	Yearly	TM-7 & 8
Copper	mg/m3	Yearly	TM - 12, 13 & 14
Dry gas density	kg/m3	Yearly	<u>TM-23</u>
Hazardous substances	mg/m3	Yearly	TM - 12, 13 & 14
Hydrogen chloride	mg/m3	Yearly	TM-7 & 8
Moisture content	<mark>%</mark>	Yearly	<u>TM-22</u>
Molecular weight of stack gases	g/g-mole	Yearly	<u>TM-23</u>
Nitrogen Oxides	g/m3	Continuous	CEM-2
Oxygen (O2)	<mark>%</mark>	Yearly	CEM-3
Solid Particles	mg/m3	Yearly	TM-15
Sulfuric acid mist and sulfur trioxide (as SO3)	<u>mg/m3</u>	Yearly	<u>TM-3</u>
Sulphur dioxide	mg/m3	Continuous	CEM-2
Sulphuric acid mist and/or sulphur trioxide <u>Temperature</u>	<mark>mg/m3</mark> oC	Yearly	TM- <mark>32</mark>
Total Fluoride	mg/m3	Yearly	TM-9

POINT 15

PollutantVelocity	<mark>Units of</mark> measure <u>m/s</u>	FrequencyYearly	Sampling Method TM-2
Nitrogen Oxides <mark>Volumetric</mark> flowrate	pphm <mark>m3/s</mark>	Continuous Yearly	AM-12 <mark>TM-2</mark>
Sulphur dioxide	<mark>pphm</mark>	Continuous	AM-20

POINT 16



POINTS 15,16

Pollutant	Units of measure	Frequency	Sampling Method
Nitrogen Oxides	pphm	Continuous	AM-12
Sulphur dioxide	pphm	Continuous	AM-20

POINT 17

Pollutant	Units of measure	Frequency	Sampling Method
Nitrogen Oxides	pphm	MonthlyContinuous	Special Method 1
Sulphur dioxide	pphm	MonthlyContinuous	Special Method 1

POINT 18

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Monthly during discharge	Inspection
Total Suspended Solids	mg/L	Monthly during discharge	Representative sample
<mark>рН</mark>	<mark>рН</mark>	Monthly during discharge	Representative sample

POINTS 11, 12, 13, 14

Parameter	Units of measure	Frequency	Sampling Method
Carbon dioxide in stack gases	<mark>%</mark>	Annual	TM-24
Dry gas density	<mark>kg/m³</mark>	Annual	TM-23
Molecular weight of stack gases	<mark>g/gmole</mark>	Annual	TM-23
Moisture content in stack gases	<mark>%</mark>	Annual	TM-22
Oxygen in stack gases	<mark>%</mark>	Annual	CEM-3
Temperature	<mark>≏C</mark>	Annual	TM-2
Velocity	<mark>m/s</mark>	Annual	TM-2
Volumetric flow rate	m ³ /s	Annual	TM-2

The selection of sampling positions must be carried out in accordance with test method TM-1.

M2.2 For the purposes of the tables above:

- Hazardous substances means the aggregate of Type I and Type II substances (Sb, As, Be, Cd, Cr, Co, Pb, Mn, Hg, Ni, Se, Sn or and V) and Cu.
- Special Method 1 means the CSIRO diffusion tube method.
- M2.3 The monitoring of air pollutants required under condition M2.1 must be undertaken during firing with coal and each of the alternative fuels specified in this licence.
- 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 18 of the Protection of the Environment Operations (General) Regulation 1998. 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.epa.nsw.gov.au.

M2.5 One sample per quarter taken for the monitoring of Total Suspended Solids required for Point 6 must be analysed using a SEM (Scanning Electron Microscope).

M2.6 For the purpose of the frequency of monitoring:-

Weekly sampling means samples taken at a minimum of 5 day intervals, 52 times per year, Monthly sampling means samples taken at a minimum of 20 day intervals, 12 times per year, and, Quarterly sampling means samples taken at a minimum of 12-week day intervals, 4 times per year.



M6 Requirement to monitor volume or mass

- M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
 - (a) the volume of liquids discharged to water or applied to the area;
 - (b) the mass of solids applied to the area;
 - (c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

POINTS 1,25,6

Frequency	Unit Of Measure	Sampling Method
Continuous	kL/week	Weir structure and level sensor

POINTS 3,4

Frequency	Unit Of Measure	Sampling Method
Continuous	kL/week	Flow meter and continuous logger

M6.2 For the purposes of Condition M6.1, the sampling method must be as follows:-

points 1, 2 and 6 – weir structure and level sensor, and points 3 and 4 – flow meter and continuous logger,

except when the equipment is unavailable or out of service, in which case, an alternate measurement method or estimate may be used.

M6.3 During co-firing, the Licensee must continuously monitor and record coal feed rate and solid alternative fuel feed rate.

M7 Requirement to monitor impurities in solid alternative fuels

M7.1 The Licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1 contained in any solid alternative fuel consisting of recycled timber products obtained from manufacturing, construction and demolition sources, and the Calorific Value (MJ/kg) of the fuel. The Licensee must use the units of measure, and sample at the frequency specified opposite in the other columns:

Parameter	Units of measure	Frequency
Antimony (Sb)	mg/kg	Per batch, as processed
Arsenic (As)	mg/kg	Per batch, as processed
Beryllium (Be)	mg/kg	Per batch, as processed
Cadmium (Cd)	mg/kg	Per batch, as processed
Chlorine (Cl)	%	Per batch, as processed
Chromium (Cr) total	mg/kg	Per batch, as processed
Cobalt (Co)	mg/kg	Per batch, as processed
Copper Cu)	mg/kg	Per batch, as processed
Fluorine (F)	%	Per batch, as processed
Lead (Pb)	mg/kg	Per batch, as processed
Manganese (Mn)	mg/kg	Per batch, as processed
Mercury (Hg)	mg/kg	Per batch, as processed
Nickel (Ni)	mg/kg	Per batch, as processed
Selenium (Se)	mg/kg	Per batch, as processed
Sulfur (S)	%	Per batch, as processed
Tin (Sn)	mg/kg	Per batch, as processed
Vanadium) (V)	mg/kg	Per batch, as processed



M8 Requirement to monitor weather

M8.1 For each monitoring specified below (by a point number)specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) each weather parameter 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 19—

Parameter	Units of <mark>measure</mark> Measure	Frequency	Averaging Period <mark>(hr)</mark>	Sampling Method
Wind direction @ 10 mAir temperature	- <mark>:C</mark>	Continuous	1 <u>hour</u>	<mark>АМ-2-&-</mark> АМ-4
Wind <mark>speed or</mark> run @10m <u>direction</u>	m/sec	Continuous	<mark>1-15 minute</mark>	AM-2 & AM-4
Rainfall <mark>Wind</mark> speed	m <mark>∰/s</mark>	Continuous	<mark>1–</mark> 15 minute	AM- <mark>24<mark>2 & AM-4</mark></mark>
Sigma theta @ 10 m		Continuous	24- <mark>15 minute</mark>	AM-2 & AM-4
Rainfall	mm	<u>Continuous</u>	<u>24 hour</u>	<u>AM-4</u>
Additional				<u>AM-1 & AM-4</u>
<mark>requirements</mark> Siting				
<mark>Siting</mark> Measurem ent				АМ- <mark>2 &</mark> <u>1 &</u> АМ-4
Measuremen	ŧ			<mark>-2 &</mark> 4-4

Pollution studies and reduction programs

U1.1 By 1 July 2002, the Licensee must undertake an air quality impact assessment study to develop site specific emission concentration limits for each of the air pollutants and discharge points specified in the table. Emission concentration limits must be developed in accordance with the Approved Methods and Guidance for the Monitoring and Assessment of Air pollutants in NSW.

POINT 11, 12, 13, 14

Pollutant	Pollutant
H ₂ SO ₄ or SO ₃ or both (as SO ₃)	Total chromium (Cr)
Sulfur dioxide (SO ₂)	Hexavalent chromium (Cr ⁶⁺)
Chlorine (Cl ₂)	Cobalt (Co)
Hydrogen chloride (HCI)	Lead (Pb)
Any fluoride compound (HF or HF equivalent)	Manganese (Mn)



NO ₂ or NO or both (as NO ₂)	Mercury (Hg)
Type I and Type II substances	Nickel (Ni)
Solid particles	Selenium (Se)
Antimony (Sb)	Tin (Sn)
Arsenic (As)	Vanadium (V)
Beryllium (Be)	Copper (Cu)
Cadmium (Cd)	

U1.2 Undertake source emissions sampling and analysis in accordance with condition M2.1 and the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW that verifies for each monitoring/discharge point specified in the table below (by a point number), whether the concentration of a pollutant discharged at that point can meet the concentration limits specified for that pollutant in the table.

POINT 11, 12, 13 and 14

Pollutant	Units of measure	100 percentile limit	Reference conditions	Averaging period
Volatile organic compounds (VOC)	<mark>ppm</mark>	20	n-propane equivalent, dry, 273 K, 101.3 kPa, 7 % O ₂	Rolling 1 hour
Opacity	<mark>%</mark>	<mark>20</mark>	Gas stream temperature above dew point. Path length corrected to stack exit diameter.	Block 6 minute

U1.1 Not applicable.

Special conditions

E1 Solid alternative fuel

E1.1 Not applicable. E1.1 For the purposes of this Licence, solid alternative fuel means timber products that are either:-

	 Biomass that is sustainably harvested as defined in "Greenhouse Gas Emissions from
	Electricity Supplied in NSW: Emissions Workbook, October 2000, Ministry of Energy and
	Utilities"; or
	 Recycled timber products obtained from manufacturing, construction and demolition
	sources that comply with the fuel specification L3.4 for hazardous substances; or
	 In accordance with Regulation 8 (Special requirements – wood wastes) of Division 2.2
	(Eligible renewable energy sources) in Part 2 of the Renewable Energy (Electricity)
	Regulations 2001 and Renewable Energy (Electricity) Act 2000.
E1.2	Solid alternative fuel may only be fed to the boiler during coal firing.
E1.3	Solid alternative fuel may only be fed to the boiler at a feed rate of less than or equal to 5 %
	weight of the coal feed rate

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

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 1998
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 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
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 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
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
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert 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 1998
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.
reprocessing of 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
solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
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 code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Mr Jim Clarence



Regional Operations Officer Environment Protection Authority

(By Delegation)

Date of this edition - 22-Mar-2002