

# Monthly Data Summary

## BAYSWATER MONTHLY DATA SUMMARY NOVEMBER 2015

LICENCE NO	779
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	NOVEMBER 2015

### A1 Licence Holder

Licence Number 779  
 Licence HoBWer AGL Macquarie  
 Trading Name (if applicable)  
 ABN 18 402 904 344

### A2 Premises to which Licence Applies (if applicable)

Common Name (if any) BAYSWATER POWER STATION  
 Premises NEW ENGLAND HIGHWAY MUSWELLBROOK NSW 2333

### A3 Activities to which Licence Applies

Electricity Generation

### A4 Other Activities (if applicable) Crushing, Grinding or Separating Works Aircraft (helicopter) facilities

Crushing, Grinding or Separating Works  
 Sewage Treatment Systems  
 Chemical Storage Facilities  
 Aircraft (helicopter) facilities

### A5 Fee-Based Activity Classifications

**Note** that the fee based activity classification is used to calculate the administrative fee.

Fee-based activity	Activity scale	Unit of measure
Generation of electrical power from coal	> 4,000.00	Gwh generated
Chemical Storage	> 100	Tonnes Generated or Stored
Coal Works	> 5000000	Tonnes handled

# Monthly Data Summary

## Discharge & Monitoring Point 1

### Discharge to waters

Effluent quality and volume monitoring, Discharge from main station oil separator hoB Wing basin and Treated Process Water Pond to Tinkers Creek, shown as "EPA ID No. 1" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Oil and Grease	milligrams per litre	Fortnightly	4	2.5	4.1	9.0	10 mg/L
NOVEMBER 2015	4/12/2015	Total suspended solids	milligrams per litre	Fortnightly	4	2.5	4.8	8.0	20 mg/L
NOVEMBER 2015	4/12/2015	Volume discharge	kilolitres per week	Weekly during discharge	4	0	7,952	8,863	36,400 kL
Comments:									

## Discharge & Monitoring Point 7

### Discharge to waters

Effluent quality and volume monitoring, Discharge from cooling towers to Tinkers Creek, shown as "EPA ID No. 7" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Conductivity	uS/cm	Weekly	4	2140	2683	3450	4500 uS/cm
NOVEMBER 2015	4/12/2015	pH	pH Units	Weekly	4	8	8.2	8.3	6.5 - 8.5
NOVEMBER 2015	4/12/2015	Volume discharge	Megalitres per month	Weekly during discharge	1		42.9		840 ML
Comments:									

## Discharge & Monitoring Point 8

### Discharge to waters

Discharge & monitoring point under the Hunter River Salinity Trading Scheme, Discharge pipe from Lake Liddel dam wall, shown as "EPA ID No. 8" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Conductivity	uS/cm	Continuous during discharge	1	2270	2270	2270	-
NOVEMBER 2015	4/12/2015	pH	pH Units	Daily during discharge	1	7.9	7.9	7.9	6.5 - 8.5
NOVEMBER 2015	4/12/2015	Total suspended solids	milligrams per litre	Monthly	1	5.0	5.0	5.0	30 mg/L
NOVEMBER 2015	4/12/2015	Volume discharge	Megalitres per day	Daily during discharge	0				700 ML
Comments: HRSTS discharge did not occur during the reporting period. Results shown here are from routine monthly sampling									

# Monthly Data Summary

## Discharge & Monitoring Point 10

### Discharge to air

Air emission monitoring, Boiler 1 stack emissions, shown as "EPA ID No. 10" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	206.4	331.7	433.6	700 ppm
NOVEMBER 2015	4/12/2015		milligrams per cubic metre				423.6	680.8	890.0	1500 mg/m <sup>3</sup>
NOVEMBER 2015	4/12/2015	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	253.4	335.1	386.7	600 ppm
NOVEMBER 2015	4/12/2015		milligrams per cubic metre				724.3	957.8	1105.2	-
NOVEMBER 2015	4/12/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	1.8%	6.5%	13.0%	20%
Comments:										

### Annual monitoring of discharges to air

Air emission monitoring, Boiler 1 stack emissions, shown as "EPA ID No. 13" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	No. of samples required by licence	Samples collected and analysed	Sample value	EPL Limit mg/m <sup>3</sup>
NOVEMBER 2015	4/12/2015	Cadmium	milligrams per cubic metre	1	1	0.00003	1.0
NOVEMBER 2015	4/12/2015	Carbon monoxide	ppm	1	1	23	
NOVEMBER 2015	4/12/2015	Chlorine	milligrams per cubic metre	1	1	0.01	200
NOVEMBER 2015	4/12/2015	Copper	milligrams per cubic metre	1	1	0.0005	
NOVEMBER 2015	4/12/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.01	5
NOVEMBER 2015	4/12/2015	Hydrogen chloride	milligrams per cubic metre	1	1	16.0	100
NOVEMBER 2015	4/12/2015	Mercury	milligrams per cubic metre	1	1	0.0016	1.0
NOVEMBER 2015	4/12/2015	Nitrogen oxides	milligrams per cubic metre	1	1	830	1500
NOVEMBER 2015	4/12/2015	Solid particles	milligrams per cubic metre	1	1	9.5	100
NOVEMBER 2015	4/12/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	8.90	100
NOVEMBER 2015	4/12/2015	Sulphur dioxide	milligrams per cubic metre	1	1	1100	
NOVEMBER 2015	4/12/2015	Total fluoride	milligrams per cubic metre	1	1	9.3	50
Comments: Monitoring of emission from each of the 4 boilers for the substances in this table is required annually. In most years one boiler is tested each quarter. This table contains the latest results from Boiler 1 tested 27 October 2015.							

# Monthly Data Summary

## Discharge & Monitoring Point 11

Discharge to air

Air emission monitoring, Boiler 2 stack emissions, shown as "EPA ID No. 11" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.3%	6.2%	12.3%	20%
Comments:										

## Annual monitoring of discharges to air

Air emission monitoring, Boiler 2 stack emissions, shown as "EPA ID No. 13" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	No. of samples required by licence	Samples collected and analysed	Sample value	EPL Limit mg/m <sup>3</sup>
NOVEMBER 2015	4/12/2015	Cadmium	milligrams per cubic metre	1	1	0.00005	1.0
NOVEMBER 2015	4/12/2015	Carbon monoxide	ppm	1	1	27	
NOVEMBER 2015	4/12/2015	Chlorine	milligrams per cubic metre	1	1	0.007	200
NOVEMBER 2015	4/12/2015	Copper	milligrams per cubic metre	1	1	0.0011	
NOVEMBER 2015	4/12/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.037	5
NOVEMBER 2015	4/12/2015	Hydrogen chloride	milligrams per cubic metre	1	1	16.0	100
NOVEMBER 2015	4/12/2015	Mercury	milligrams per cubic metre	1	1	0.0014	1.0
NOVEMBER 2015	4/12/2015	Nitrogen oxides	milligrams per cubic metre	1	1	670	1500
NOVEMBER 2015	4/12/2015	Solid particles	milligrams per cubic metre	1	1	8.2	100
NOVEMBER 2015	4/12/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	55	100
NOVEMBER 2015	4/12/2015	Sulphur dioxide	milligrams per cubic metre	1	1	810	
NOVEMBER 2015	4/12/2015	Total fluoride	milligrams per cubic metre	1	1	6.7	50
Comments: Monitoring of emission from each of the 4 boilers for the substances in this table is required annually. In most years one boiler is tested each quarter. This table contains the latest results from Boiler 2 tested on 16 and 17 July 2015.							

# Monthly Data Summary

## Discharge & Monitoring Point 12

Discharge to air

Air emission monitoring, Boiler 3 stack emissions, shown as "EPA ID No. 12" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	4.3%	8.3%	19.4%	20%
Comments:										

## Annual monitoring of discharges to air

Air emission monitoring, Boiler 3 stack emissions, shown as "EPA ID No. 13" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	No. of samples required by licence	Samples collected and analysed	Sample value	EPL Limit mg/m <sup>3</sup>
NOVEMBER 2015	4/12/2015	Cadmium	milligrams per cubic metre	1	1	0.00002	1.0
NOVEMBER 2015	4/12/2015	Carbon monoxide	ppm	1	1	5	
NOVEMBER 2015	4/12/2015	Chlorine	milligrams per cubic metre	1	1	0.005	200
NOVEMBER 2015	4/12/2015	Copper	milligrams per cubic metre	1	1	0.0011	
NOVEMBER 2015	4/12/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.01	5
NOVEMBER 2015	4/12/2015	Hydrogen chloride	milligrams per cubic metre	1	1	12	100
NOVEMBER 2015	4/12/2015	Mercury	milligrams per cubic metre	1	1	0.0017	1.0
NOVEMBER 2015	4/12/2015	Nitrogen oxides	milligrams per cubic metre	1	1	780	1500
NOVEMBER 2015	4/12/2015	Solid particles	milligrams per cubic metre	1	1	20.0	100
NOVEMBER 2015	4/12/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	37.00	100
NOVEMBER 2015	4/12/2015	Sulphur dioxide	milligrams per cubic metre	1	1	960	
NOVEMBER 2015	4/12/2015	Total fluoride	milligrams per cubic metre	1	1	13.0	50
Comments: Monitoring of emission from each of the 4 boilers for the substances in this table is required annually. In most years one boiler is tested each quarter. This table contains the latest results from Boiler 3 sampled on 14 and 15 July 2015.							

# Monthly Data Summary

## Discharge & Monitoring Point 13

### Discharge to air

Air emission monitoring, Boiler 4 stack emissions, shown as "EPA ID No. 12" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easements, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
NOVEMBER 2015	4/12/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.1%	4.8%	11.1%	20%
Comments:										

## Annual monitoring of discharges to air

Air emission monitoring, Boiler 4 stack emissions, shown as "EPA ID No. 13" on plan titled "Bayswater Power Station Unit 1-4, Open Space, Easements, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	No. of samples required by licence	Samples collected and analysed	Sample value	EPL Limit mg/m <sup>3</sup>
NOVEMBER 2015	4/12/2015	Cadmium	milligrams per cubic metre	1	1	0.00002	1.0
NOVEMBER 2015	4/12/2015	Carbon monoxide	ppm	1	1	<0.0029	
NOVEMBER 2015	4/12/2015	Chlorine	milligrams per cubic metre	1	1	0.019	200
NOVEMBER 2015	4/12/2015	Copper	milligrams per cubic metre	1	1	0.0018	
NOVEMBER 2015	4/12/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.012	5
NOVEMBER 2015	4/12/2015	Hydrogen chloride	milligrams per cubic metre	1	1	22.0	100
NOVEMBER 2015	4/12/2015	Mercury	milligrams per cubic metre	1	1	0.0011	1.0
NOVEMBER 2015	4/12/2015	Nitrogen oxides	milligrams per cubic metre	1	1	940	1500
NOVEMBER 2015	4/12/2015	Solid particles	milligrams per cubic metre	1	1	17.0	100
NOVEMBER 2015	4/12/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	9.30	100
NOVEMBER 2015	4/12/2015	Sulphur dioxide	milligrams per cubic metre	1	1	930	
NOVEMBER 2015	4/12/2015	Total fluoride	milligrams per cubic metre	1	1	22.0	50
Comments: Monitoring of emission from each of the 4 boilers for the substances in this table is required annually. In most years one boiler is tested each quarter. This table contains the latest results from Boiler 4 sampled on 21 and 22 May 2015.							

# Monthly Data Summary

<b>Details of Non-Compliance with Licence Conditions</b>
Licence condition number not complied with
Condition L3.6
Summary of particulars of the non-compliance <b>(NO MORE THAN 50 WORDS)</b>
Low pH was recorded at EPL Point 7
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
24-Nov-15
If relevant, precise location where the non-compliance occurred (attach a map or diagram)
If applicable, registration numbers of any vehicles or the chassis number of any mobile plant involved in the non-compliance
-
Cause of non-compliance
On investigation it was found that dilute acid solution had leaked to a stormwater drain from a failed valve in the demineralisation plant
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
Source isolated upon discovery. Blowdown from the cooling towers was immediately applied to the system to increase the pH
Action taken or that will be taken to prevent a recurrence of the non-compliance
Failed valve replaced on the day of the event. Planned replacement of similar valves. Review of bunding and shielding in this location.