

Monthly Data Summary

BAYSWATER MONTHLY DATA SUMMARY AUGUST 2015

LICENCE NO	779
LICENCE OWNER	AGL Macquarie
REPORTING PERIOD	01 / 8 / 2015 to 31 / 8 / 2015

A1 Licence Holder

Licence Number 779
 Licence Holder 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 holding 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, Easements, 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
Aug-15	15/08/2015	Oil and Grease	milligrams per litre	Fortnightly	4	2.5	5.0	8.0	10 mg/L
Aug-15	15/08/2015	Total suspended solids	milligrams per litre	Fortnightly	4	2.5	10.6	18.0	20 mg/L
Aug-15	15/08/2015	Volume discharge	kilolitres per week	Weekly during discharge	5	6,716.0	9,971	12,608	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, Easements, 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
Aug-15	15/08/2015	Conductivity	uS/cm	Weekly	4	3020	3223	3400	4500 uS/cm
Aug-15	15/08/2015	pH	pH Units	Weekly	4	8.2	8.3	8.3	6.5 - 8.5
Aug-15	15/08/2015	Volume discharge	Megalitres per month	Weekly during discharge	1	351.0			840 ML
Comments:									

Discharge & Monitoring Point 8

Discharge to waters

Discharge & monitoring point under the Hunter River Salinity Trading Scheme, Discharge pipe from Lake Liddell dam wall, shown as "EPA ID No. 8" 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	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Aug-15	15/08/2015	Conductivity	uS/cm	Continuous during discharge	2	2160	2225	2290	-
Aug-15	15/08/2015	pH	pH Units	Daily during discharge	2	8.0	8.2	8.3	6.5 - 8.5
Aug-15	15/08/2015	Total suspended solids	milligrams per litre	Monthly	2	2.5	3.8	5.0	30 mg/L
Aug-15	15/08/2015	Volume discharge	Megalitres per day	Daily during discharge	1	209.2	209.2	209.2	700 ML
Comments: HRSTS event 25 Aug 2015									

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, 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
Aug-15	15/08/2015	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	165.7	322.5	500.2	700 ppm
Aug-15	15/08/2015		milligrams per cubic metre				340.1	661.9	1026.7	1500 mg/m ³
Aug-15	15/08/2015	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	250.0	324.5	410.8	600 ppm
Aug-15	15/08/2015		milligrams per cubic metre				714.6	927.5	1174.1	-
Aug-15	15/08/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.0%	6.0%	12.0%	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, 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 ³			
Aug-15	15/08/2015	Cadmium	milligrams per cubic metre	1	1	0.00001	1.0			
Aug-15	15/08/2015	Carbon monoxide	ppm	1	1	22				
Aug-15	15/08/2015	Chlorine	milligrams per cubic metre	1	1	0.0	200			
Aug-15	15/08/2015	Copper	milligrams per cubic metre	1	1	0.0001				
Aug-15	15/08/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.009	5			
Aug-15	15/08/2015	Hydrogen chloride	milligrams per cubic metre	1	1	5.3	100			
Aug-15	15/08/2015	Mercury	milligrams per cubic metre	1	1	0.00048	1.0			
Aug-15	15/08/2015	Nitrogen oxides	milligrams per cubic metre	1	1	780	1500			
Aug-15	15/08/2015	Solid particles	milligrams per cubic metre	1	1	9.5	100			
Aug-15	15/08/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	3	100			
Aug-15	15/08/2015	Sulphur dioxide	milligrams per cubic metre	1	1	1000				
Aug-15	15/08/2015	Total fluoride	milligrams per cubic metre	1	1	3.2	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 sampled on 4 December 2014.								

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, 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
Aug-15	15/08/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	1.0%	4.5%	9.4%	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, 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 ³
Aug-15	15/08/2015	Cadmium	milligrams per cubic metre	1	1	0.00005	1.0
Aug-15	15/08/2015	Carbon monoxide	milligrams per cubic metre	1	1	34	
Aug-15	15/08/2015	Chlorine	milligrams per cubic metre	1	1	0.0071	200
Aug-15	15/08/2015	Copper	milligrams per cubic metre	1	1	0.0011	
Aug-15	15/08/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.037	5
Aug-15	15/08/2015	Hydrogen chloride	milligrams per cubic metre	1	1	16.0	100
Aug-15	15/08/2015	Mercury	milligrams per cubic metre	1	1	0.0014	1.0
Aug-15	15/08/2015	Nitrogen oxides	milligrams per cubic metre	1	1	670	1500
Aug-15	15/08/2015	Solid particles	milligrams per cubic metre	1	1	8.2	100
Aug-15	15/08/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	55	100
Aug-15	15/08/2015	Sulphur dioxide	milligrams per cubic metre	1	1	810	
Aug-15	15/08/2015	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, 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
Aug-15	15/08/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.4%	6.0%	11.6%	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, 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 ³
Aug-15	15/08/2015	Cadmium	milligrams per cubic metre	1	1	0.00002	1.0
Aug-15	15/08/2015	Carbon monoxide	milligrams per cubic metre	1	1	5.6	
Aug-15	15/08/2015	Chlorine	milligrams per cubic metre	1	1	0.0046	200
Aug-15	15/08/2015	Copper	milligrams per cubic metre	1	1	0.0011	
Aug-15	15/08/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.011	5
Aug-15	15/08/2015	Hydrogen chloride	milligrams per cubic metre	1	1	12.0	100
Aug-15	15/08/2015	Mercury	milligrams per cubic metre	1	1	0.0017	1.0
Aug-15	15/08/2015	Nitrogen oxides	milligrams per cubic metre	1	1	780	1500
Aug-15	15/08/2015	Solid particles	milligrams per cubic metre	1	1	20.0	100
Aug-15	15/08/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	37.00	100
Aug-15	15/08/2015	Sulphur dioxide	milligrams per cubic metre	1	1	960	
Aug-15	15/08/2015	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
Aug-15	15/08/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	3.8%	6.1%	0.0%	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 ³
May-15	15/05/2015	Cadmium	milligrams per cubic metre	1	1	0.00002	1.0
May-15	15/05/2015	Carbon monoxide	milligrams per cubic metre	1	1	<2.9	
May-15	15/05/2015	Chlorine	milligrams per cubic metre	1	1	0.0	200
May-15	15/05/2015	Copper	milligrams per cubic metre	1	1	0.0018	
May-15	15/05/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.012	5
May-15	15/05/2015	Hydrogen chloride	milligrams per cubic metre	1	1	22.0	100
May-15	15/05/2015	Mercury	milligrams per cubic metre	1	1	0.0011	1.0
May-15	15/05/2015	Nitrogen oxides	milligrams per cubic metre	1	1	940	1500
May-15	15/05/2015	Solid particles	milligrams per cubic metre	1	1	17.0	100
May-15	15/05/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	9.30	100
May-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	1	1	930	
May-15	15/05/2015	Total fluoride	milligrams per cubic metre	1	1	11.0	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

Details of Non-Compliance with Licence Conditions
Licence condition number not complied with
Condition L3.6
Summary of particulars of the non-compliance (NO MORE THAN 50 WORDS)
Low pH reading at Discharge monitoring point 7
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
24-Aug-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
High intensity high volume rainfall event resulting in approximately 10ML of stormwater flowing through the monitoring point in a short period of time.
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
pH readings at the discharge point dropped from 7.54 at 2040hrs to 6.33 at 2041hrs. The warning alarms sounded as per procedure.
Action taken or that will be taken to prevent a recurrence of the non-compliance
Any mitigation measures identified as part of an ongoing investigation of AGL Macquarie will be implemented.