Monthly Data Summary

BAYSWATER MONTHLY DATA SUMMARY JULY 2015

LICENCE NO	**779**
LICENCE OWNER	AGL Macquarie
REPORTING PERIOD	01 / 7 / 2015 to 31 / 7/ 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 / measurment frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Oil and Grease	milligrams per litre	Fortnightly	4	1.0	4.1	11.0	10 mg/L
Mar-15	13/03/2015	Total suspended solids	milligrams per litre	Fortnightly	4	0.5	2.0	4.0	20 mg/L
Mar-15	13/03/2015	Volume discharge	kilolitres per week	Weekly during discharge	4	6,844.0	7,888	8,719	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 / measurment frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Conductivity	uS/cm	Weekly	4	2460	3003	3400	4500 uS/cm
Mar-15	13/03/2015	pH	pH Units	Weekly	4	8	8.2	8.3	6.5 - 8.5
Mar-15	13/03/2015	Volume discharge	Megalitres per month	Weekly during discharge	1	784.6			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 / measurment frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Conductivity	uS/cm	Continuous during disharge	1	2190	2190	2190	-
Mar-15	13/03/2015	pH	pH Units	Daily during discharge	1	8.3	8.3	8.3	6.5 - 8.5
Mar-15	13/03/2015	Total suspended solids	milligrams per litre	Monthly	1	7.0	7.0	7.0	30 mg/L
Mar-15	13/03/2015	Volume discharge	Megalitres per day	Daily during discharge					700 ML
Comments:	No HRSTS discharge during July 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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	108.8	289.9	519.1	700 ppm
Mar-15	13/03/2015		milligrams per cubic metre				223.2	595.0	1065.5	1500 mg/m^3
Mar-15	13/03/2015	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	232.7	320.6	384.1	600 ppm
Mar-15	13/03/2015		milligrams per cubic metre				665.1	916.2	1097.9	-
Mar-15	13/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.4%	5.7%	11.4%	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	7/09/2014	Cadmium	milligrams per cubic metre	1	1	0.0019	1.0
Aug-15	7/09/2014	Carbon monoxide	ppm	1	1	15	
Aug-15	7/09/2014	Chlorine	milligrams per cubic metre	1	1	<1	200
Aug-15	7/09/2014	Copper	milligrams per cubic metre	1	1	0.0019	
Aug-15	7/09/2014	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.027	5
Aug-15	7/09/2014	Hydrogen chloride	milligrams per cubic metre	1	1	2.0	100
Aug-15	7/09/2014	Mercury	milligrams per cubic metre	1	1	0.0013	1.0
Aug-15	7/09/2014	Nitrogen oxides	milligrams per cubic metre	1	1	500	1500
Aug-15	7/09/2014	Solid particles	milligrams per cubic metre	1	1	19.0	100
Aug-15	7/09/2014	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	<1.13	100
Aug-15	7/09/2014	Sulphur dioxide	milligrams per cubic metre	1	1	484	
Aug-15	7/09/2014	Total fluoride	milligrams per cubic metre	1	1	10.0	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 1.						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	0.5%	3.7%	10.8%	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
Feb-15	20/02/2015	Cadmium	milligrams per cubic metre	1	1	0.0010	1.0
Feb-15	20/02/2015	Carbon monoxide	ppm	1	1	128	
Feb-15	20/02/2015	Chlorine	milligrams per cubic metre	1	1	<1.9	200
Feb-15	20/02/2015	Copper	milligrams per cubic metre	1	1	0.0010	
Feb-15	20/02/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.015	5
Feb-15	20/02/2015	Hydrogen chloride	milligrams per cubic metre	1	1	<1.9	100
Feb-15	20/02/2015	Mercury	milligrams per cubic metre	1	1	<0.0000	1.0
Feb-15	20/02/2015	Nitrogen oxides	milligrams per cubic metre	1	1	369	1500
Feb-15	20/02/2015	Solid particles	milligrams per cubic metre	1	1	14.0	100
Feb-15	20/02/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	<0.91	100
Feb-15	20/02/2015	Sulphur dioxide	milligrams per cubic metre	1	1	564	
Feb-15	20/02/2015	Total fluoride	milligrams per cubic metre	1	1	7.5	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.						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	4.1%	8.4%	13.9%	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
Dec-15	14/12/2015	Cadmium	milligrams per cubic metre	1	1	0.0019	1.0
Dec-15	14/12/2015	Carbon monoxide	ppm	1	1	15	
Dec-15	14/12/2015	Chlorine	milligrams per cubic metre	1	1	<1	200
Dec-15	14/12/2015	Copper	milligrams per cubic metre	1	1	0.0019	
Dec-15	14/12/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.027	5
Dec-15	14/12/2015	Hydrogen chloride	milligrams per cubic metre	1	1	2.0	100
Dec-15	14/12/2015	Mercury	milligrams per cubic metre	1	1	0.0013	1.0
Dec-15	14/12/2015	Nitrogen oxides	milligrams per cubic metre	1	1	500	1500
Dec-15	14/12/2015	Solid particles	milligrams per cubic metre	1	1	19.0	100
Dec-15	14/12/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	<1.13	100
Dec-15	14/12/2015	Sulphur dioxide	milligrams per cubic metre	1	1	484	
Dec-15	14/12/2015	Total fluoride	milligrams per cubic metre	1	1	10.0	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.						

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, Easments, Site Survey" dated 24/12/2004.

Month	Date of Publication	Pollutant	Unit of measure	Sampling / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Mar-15	13/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	99.5%	2.2%	5.6%	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	0.0015	1.0
May-15	15/05/2015	Carbon monoxide	ppm	1	1	17	
May-15	15/05/2015	Chlorine	milligrams per cubic metre	1	1	<1	200
May-15	15/05/2015	Copper	milligrams per cubic metre	1	1	<0.0001	
May-15	15/05/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.004	5
May-15	15/05/2015	Hydrogen chloride	milligrams per cubic metre	1	1	1.3	100
May-15	15/05/2015	Mercury	milligrams per cubic metre	1	1	<0.0003	1.0
May-15	15/05/2015	Nitrogen oxides	milligrams per cubic metre	1	1	443	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	<5.85	100
May-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	1	1	605	
May-15	15/05/2015	Total fluoride	milligrams per cubic metre	1	1	9.0	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.						

Monthly Data Summary

Details of Non-Compliance with Licence Conditions
Licence condition number not complied with
Condition L1.1
Condition L3.6
Condition L3.6
Summary of particulars of the non-compliance **(NO MORE THAN 50 WORDS)**
Return water pipeline failure resulting in release of ash dam return water to seepage pond's 1 and 2 which overboarded to Pikes Gully.
Elevated pH reading at Discharge monitoring point 7
Elevated Oil and Grease at Discharge monitoring point 1
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
4-Jul-15
7-Jul-15
20-Jul-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
A failure occurred at the coupling on joint 95 on the A and B Bayswater ash dam return water lines, causing the joint to bend and deflect water out of the joints
Failure of the acid dosing of the Units 3 and 4 cooling water caused an increase in the pH in the cooling water system.
The cause of the non-compliance is yet to be determined and is under investigation. Routine testing at a downstream point on the same day returned results which did not exceed the oil and grease limit for discharge monitoring point 1.
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
Source immediately isolated upon discovery. Realignment and repair works were completed by 1130hrs 5 July 2015.
An immediate investigation of the source of the high pH was launched when the pH warning alarm sounded on the monitoring point. On discovery of thecooling water pH in Units 3 and 4 cooling tower blowdown was halted from this source
The non-conformance is currently under investigation
Action taken or that will be taken to prevent a recurrence of the non-compliance
Concrete blocks were installed following the Event to prevent the line from moving in the vicinity of the failure. Pipeline survey schedule accelerated to monitor for movement more frequently. A program to investigate replacing the line to prevent future failures will begin this financial year.
The acid dosing system on Unit 3 and 4 was reinstated after repair works were completed on the 8 July 2015.
Any recommendations from the investigation will be adopted.