Monthly Data Summary

BAYSWATER MONTHLY DATA SUMMARY SEPTEMBER 2016

LICENCE NO	**779**
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	SEPTEMBER 2016

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 hoBWing 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 / measurment frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
SEPTEMBER 2016	14/10/2016	Oil and Grease	milligrams per litre	Fortnightly	4	<5	2.5	<5	10 mg/L
SEPTEMBER 2016	14/10/2016	Total suspended solids	milligrams per litre	Fortnightly	4	3.0	4.0	5.0	20 mg/L
SEPTEMBER 2016	14/10/2016	Volume discharge	kilolitres per week	Weekly during discharge	4	0	8,902	10,780	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 / measurment frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
SEPTEMBER 2016	14/10/2016	Conductivity	uS/cm	Weekly	4	2700.0	3115.0	3340.0	4500 uS/cm
SEPTEMBER 2016	14/10/2016	pH	pH Units	Weekly	4	8.2	8.3	8.3	6.5 - 8.5
SEPTEMBER 2016	14/10/2016	Volume discharge	Megalitres per month	Weekly during discharge	22	456.7			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 / measurment frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
SEPTEMBER 2016	14/10/2016	Conductivity	uS/cm	Continuous during disharge	6	2390.0	2440.0	2520.0	-
SEPTEMBER 2016	14/10/2016	pH	pH Units	Daily during discharge	6	8.0	8.2	8.3	6.5 - 8.5
SEPTEMBER 2016	14/10/2016	Total suspended solids	milligrams per litre	Monthly	6	1.0	2.5	4.0	30 mg/L
SEPTEMBER 2016	14/10/2016	Volume discharge	Megalitres per day	Daily during discharge	5	0	35.09	483.2	700 ML
Comments:	HRSTS discharge events occurred during September 2016								

Monthly Data Summary

Discharge & Monitoring Point 17

Discharge to waters

Ravensworth void. Inlet point located on the Void 4 pontoon pump system

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
SEPTEMBER 2016	14/10/2016	Conductivity	uS/cm	Continuous during disharge	1	6860.0	6860.0	6860.0	-
SEPTEMBER 2016	14/10/2016	pH	pH Units	Daily during discharge	1	8.5	8.5	8.5	6.5 - 9.5
SEPTEMBER 2016	14/10/2016	Total suspended solids	milligrams per litre	Monthly	1	<5	2.5	<5	30 mg/L
SEPTEMBER 2016	14/10/2016	Boron	milligrams per litre	Weekly duirng discharge	1	2.3	2.3	2.3	0.81
SEPTEMBER 2016	14/10/2016	Cadmium	milligrams per litre	Weekly duirng discharge	1	0.0002	0.0002	0.0002	0.0003
SEPTEMBER 2016	14/10/2016	Copper	milligrams per litre	Weekly duirng discharge	1	0.001	0.001	0.001	0.001
SEPTEMBER 2016	14/10/2016	Iron	milligrams per litre	Weekly duirng discharge	1	<0.05	0.0	<0.05	0.27
SEPTEMBER 2016	14/10/2016	Molybdenum	milligrams per litre	Weekly duirng discharge	1	0.321	0.321	0.321	0.29
SEPTEMBER 2016	14/10/2016	Nickel	milligrams per litre	Weekly duirng discharge	1	0.01	0.01	0.01	0.19
SEPTEMBER 2016	14/10/2016	Silver	milligrams per litre	Weekly duirng discharge	1	<0.0001	0.0	<0.0001	0.0005
SEPTEMBER 2016	14/10/2016	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	20 ML
Comments:	**Discharge did not occur during September 2016. Results obtained 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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
SEPTEMBER 2016	14/10/2016	Nitrogen Oxides	parts per million	Continuous	One hour	99.3%	101.6	303.8	738.5	700 ppm
SEPTEMBER 2016	14/10/2016		milligrams per cubic metre				208.5	623.5	1515.8	1500 mg/m^3
SEPTEMBER 2016	14/10/2016	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	184.2	335.7	392.0	600 ppm
SEPTEMBER 2016	14/10/2016		milligrams per cubic metre				526.3	959.3	1120.2	-
SEPTEMBER 2016	14/10/2016	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	3.0%	7.1%	11.7%	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^3
May-16	22/06/2016	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0
May-16	22/06/2016	Carbon monoxide	ppm	1	1	390	
May-16	22/06/2016	Chlorine	milligrams per cubic metre	1	1	0.0	200
May-16	22/06/2016	Copper	milligrams per cubic metre	1	1	0.0007	
May-16	22/06/2016	Hazardous substances (Metals)	milligrams per cubic metre	1	1	<0.011	5
May-16	22/06/2016	Hydrogen chloride	milligrams per cubic metre	1	1	4.5	100
May-16	22/06/2016	Mercury	milligrams per cubic metre	1	1	<0.00040	1.0
May-16	22/06/2016	Nitrogen oxides	milligrams per cubic metre	1	1	510	1500
May-16	22/06/2016	Solid particles	milligrams per cubic metre	1	1	4.5	100
May-16	22/06/2016	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	0.51	100
May-16	22/06/2016	Sulphur dioxide	milligrams per cubic metre	1	1	760	
May-16	22/06/2016	Total fluoride	milligrams per cubic metre	1	1	3.6	50
Comments:	Monitoring of emission from each of the 4 boilers for the substances in this table is required annually. This table contains the results from Boiler 1 tested on 19 May 2016.						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
SEPTEMBER 2016	14/10/2016	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	5.5%	8.8%	14.3%	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^3
Jul-15	17/08/2015	Cadmium	milligrams per cubic metre	1	1	0.0001	1.0
Jul-15	17/08/2015	Carbon monoxide	ppm	1	1	27	
Jul-15	17/08/2015	Chlorine	milligrams per cubic metre	1	1	0.0	200
Jul-15	17/08/2015	Copper	milligrams per cubic metre	1	1	0.0011	
Jul-15	17/08/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.04	5
Jul-15	17/08/2015	Hydrogen chloride	milligrams per cubic metre	1	1	16.0	100
Jul-15	17/08/2015	Mercury	milligrams per cubic metre	1	1	0.00140	1.0
Jul-15	17/08/2015	Nitrogen oxides	milligrams per cubic metre	1	1	670	1500
Jul-15	17/08/2015	Solid particles	milligrams per cubic metre	1	1	8.2	100
Jul-15	17/08/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	55.00	100
Jul-15	17/08/2015	Sulphur dioxide	milligrams per cubic metre	1	1	810	
Jul-15	17/08/2015	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. This table contains the results from Boiler 2 tested on 16 July 2015. This boiler is scheduled for testing during October 16.						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
SEPTEMBER 2016	14/10/2016	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	4.2%	8.3%	14.9%	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, 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^3
Jul-15	17/08/2015	Cadmium	milligrams per cubic metre	1	1	0.0000	1.0
Jul-15	17/08/2015	Carbon monoxide	ppm	1	1	5	
Jul-15	17/08/2015	Chlorine	milligrams per cubic metre	1	1	0.0	200
Jul-15	17/08/2015	Copper	milligrams per cubic metre	1	1	0.0011	
Jul-15	17/08/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.01	5
Jul-15	17/08/2015	Hydrogen chloride	milligrams per cubic metre	1	1	12.0	100
Jul-15	17/08/2015	Mercury	milligrams per cubic metre	1	1	0.00170	1.0
Jul-15	17/08/2015	Nitrogen oxides	milligrams per cubic metre	1	1	780	1500
Jul-15	17/08/2015	Solid particles	milligrams per cubic metre	1	1	20.0	100
Jul-15	17/08/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	37.00	100
Jul-15	17/08/2015	Sulphur dioxide	milligrams per cubic metre	1	1	960	
Jul-15	17/08/2015	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. This table contains the results from Boiler 3 tested on 14 July 2015. This boiler is scheduled for testing during October 16.						

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
SEPTEMBER 2016	14/10/2016	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	3.6%	6.9%	12.4%	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, 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^3
May-16	21/06/2016	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0
May-16	21/06/2016	Carbon monoxide	ppm	1	1	9	
May-16	21/06/2016	Chlorine	milligrams per cubic metre	1	1	0.0	200
May-16	21/06/2016	Copper	milligrams per cubic metre	1	1	0.0003	
May-16	21/06/2016	Hazardous substances (Metals)	milligrams per cubic metre	1	1	<0.013	5
May-16	21/06/2016	Hydrogen chloride	milligrams per cubic metre	1	1	11.0	100
May-16	21/06/2016	Mercury	milligrams per cubic metre	1	1	0.00032	1.0
May-16	21/06/2016	Nitrogen oxides	milligrams per cubic metre	1	1	630	1500
May-16	21/06/2016	Solid particles	milligrams per cubic metre	1	1	6.2	100
May-16	21/06/2016	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	2.50	100
May-16	21/06/2016	Sulphur dioxide	milligrams per cubic metre	1	1	900	
May-16	21/06/2016	Total fluoride	milligrams per cubic metre	1	1	12.0	50
Comments:	Monitoring of emission from each of the 4 boilers for the substances in this table is required annually. This table contains the results from Boiler 4 tested on 17 May 2016.						

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Details of Non-Compliance with Licence Conditions
Licence condition number not complied with
N/A
Summary of particulars of the non-compliance **(NO MORE THAN 50 WORDS)**
-
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
-
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
-
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
-
Action taken or that will be taken to prevent a recurrence of the non-compliance
-