Monthly Data Summary

BAYSWATER MONTHLY DATA SUMMARY JUNE 2018

LICENCE NO	**779**
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	JUNE 2018

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
JUNE 2018	10/07/2018	Oil and Grease	milligrams per litre	Fortnightly	4	<5	2.5	<5	10 mg/L
JUNE 2018	10/07/2018	Total suspended solids	milligrams per litre	Fortnightly	4	<1	0.9	1.0	20 mg/L
JUNE 2018	10/07/2018	Volume discharge	kilolitres per week	Weekly during discharge	4	0	8853	11289	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
JUNE 2018	10/07/2018	Conductivity	uS/cm	Continuous	0.993	1.1	2556.5	3362.2	4500 uS/cm
JUNE 2018	10/07/2018	pH	pH Units	Continuous	0.993	6.9	8.0	8.6	6.5 - 8.5
JUNE 2018	10/07/2018	Volume discharge	Megalitres per month	Weekly during discharge	14	205.5			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
JUNE 2018	10/07/2018	Conductivity	uS/cm	Continuous during disharge	1	2720.0	2720.0	2720.0	-
JUNE 2018	10/07/2018	pH	pH Units	Daily during discharge	1	8.3	8.3	8.3	6.5 - 8.5
JUNE 2018	10/07/2018	Total suspended solids	milligrams per litre	Monthly	1	6.0	6.0	6.0	30 mg/L
JUNE 2018	10/07/2018	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	700 ML
Comments:	HRSTS discharge did not occur during May 2018. Results obtained from routine monthly sampling.								

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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
JUNE 2018	10/07/2018	Conductivity	uS/cm	Continuous during disharge	1	7780.0	7780.0	7780.0	-
JUNE 2018	10/07/2018	pH	pH Units	Daily during discharge	1	8.6	8.6	8.6	6.5 - 9.5
JUNE 2018	10/07/2018	Total suspended solids	milligrams per litre	Monthly	1	6.0	6.0	6.0	30 mg/L
JUNE 2018	10/07/2018	Boron	milligrams per litre	Weekly duirng discharge	1	2.8	2.8	2.8	0.81
JUNE 2018	10/07/2018	Cadmium	milligrams per litre	Weekly duirng discharge	1	0.0	0.0	0.0	0.0003
JUNE 2018	10/07/2018	Copper	milligrams per litre	Weekly duirng discharge	1	<0.001	0.0	<0.001	0.001
JUNE 2018	10/07/2018	Iron	milligrams per litre	Weekly duirng discharge	1	<0.05	0.0	<0.05	0.27
JUNE 2018	10/07/2018	Molybdenum	milligrams per litre	Weekly duirng discharge	1	0.4	0.4	0.4	0.29
JUNE 2018	10/07/2018	Nickel	milligrams per litre	Weekly duirng discharge	1	0.0	0.0	0.0	0.19
JUNE 2018	10/07/2018	Silver	milligrams per litre	Weekly duirng discharge	1	<0.0001	0.0	<0.0001	0.0005
JUNE 2018	10/07/2018	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	20 ML
Comments:	**HRSTS discharge did not occur during June 2018. Results obtained from routine monthly sampling**								

Discharge & Monitoring Point 18

Discharge to waters

Discharge from Bayswater Ash Dam unlined flood spillway located near left abutment

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
JUNE 2018	10/07/2018	Conductivity	uS/cm	Weekly duirng discharge	0	-	-	-	-
JUNE 2018	10/07/2018	pH	pH Units	Weekly duirng discharge	0	-	-	-	6.5 - 9.5
JUNE 2018	10/07/2018	Total suspended solids	milligrams per litre	Weekly duirng discharge	0	-	-	-	30 mg/L
JUNE 2018	10/07/2018	Boron	milligrams per litre	Weekly duirng discharge	0	-	-	-	0.81
JUNE 2018	10/07/2018	Cadmium	milligrams per litre	Weekly duirng discharge	0	-	-	-	0.0003
JUNE 2018	10/07/2018	Copper	milligrams per litre	Weekly duirng discharge	0	-	-	-	0.001

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JUNE 2018	10/07/2018	Iron	milligrams per litre	Weekly duirng discharge	0	-	-	-	**0.27**
JUNE 2018	10/07/2018	Molybdenum	milligrams per litre	Weekly duirng discharge	0	-	-	-	**0.29**
JUNE 2018	10/07/2018	Nickel	milligrams per litre	Weekly duirng discharge	0	-	-	-	**0.19**
JUNE 2018	10/07/2018	Silver	milligrams per litre	Weekly duirng discharge	0	-	-	-	**0.0005**
Comments:	**Discharge did not occur during June 2018**								

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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
JUNE 2018	10/07/2018	Nitrogen Oxides	parts per million	Continuous	One hour					-
JUNE 2018	10/07/2018		milligrams per cubic metre							1500 mg/m^3
JUNE 2018	10/07/2018	Sulphur dioxide	parts per million	Continuous	One hour					600 ppm
JUNE 2018	10/07/2018		milligrams per cubic metre							-
JUNE 2018	10/07/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour					-
Comments:	**Unit out of service during June 2018**									

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
-	-	Cadmium	milligrams per cubic metre	-	-	-	1.0
-	-	Carbon monoxide	ppm	-	-	-	
-	-	Chlorine	milligrams per cubic metre	-	-	-	200
-	-	Copper	milligrams per cubic metre	-	-	-	
-	-	Hazardous substances (Metals)	milligrams per cubic metre	-	-	-	5
-	-	Hydrogen chloride	milligrams per cubic metre	-	-	-	100
-	-	Mercury	milligrams per cubic metre	-	-	-	1.0
-	-	Nitrogen oxides	milligrams per cubic metre	-	-	-	1500
-	-	Solid particles	milligrams per cubic metre	-	-	-	100
-	-	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	-	-	-	100
-	-	Sulphur dioxide	milligrams per cubic metre	-	-	-	
-	-	Total fluoride	milligrams per cubic metre	-	-	-	50
Comments:	**Unit out of service during June 2018**						

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
JUNE 2018	10/07/2018	Nitrogen Oxides	parts per million	Continuous	One hour	89.9%	103.4	198.0	292.4	-
JUNE 2018	10/07/2018		milligrams per cubic metre				212.2	406.3	600.2	1500 mg/m^3
JUNE 2018	10/07/2018	Sulphur dioxide	parts per million	Continuous	One hour	99.6%	111.6	178.1	254.6	600 ppm
JUNE 2018	10/07/2018		milligrams per cubic metre				319.1	509.1	727.6	-
JUNE 2018	10/07/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.2%	5.7%	10.8%	-
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
Oct-17	15/11/2017	Cadmium	milligrams per cubic metre	1	1	<0.0001	1.0
Oct-17	15/11/2017	Carbon monoxide	ppm	1	1	3	
Oct-17	15/11/2017	Chlorine	milligrams per cubic metre	1	1	<0.007	200
Oct-17	15/11/2017	Copper	milligrams per cubic metre	1	1	0.0004	
Oct-17	15/11/2017	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.0096	5
Oct-17	15/11/2017	Hydrogen chloride	milligrams per cubic metre	1	1	14.0	100
Oct-17	15/11/2017	Mercury	milligrams per cubic metre	1	1	0.00089	1.0
Oct-17	15/11/2017	Nitrogen oxides	milligrams per cubic metre	1	1	620	1500
Oct-17	15/11/2017	Solid particles	milligrams per cubic metre	1	1	41.0	100
Oct-17	15/11/2017	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	3.00	100
Oct-17	15/11/2017	Sulphur dioxide	milligrams per cubic metre	1	1	970	
Oct-17	15/11/2017	Total fluoride	milligrams per cubic metre	1	1	9.2	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 12 October 2017						

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
JUNE 2018	10/07/2018	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	144.8	314.9	409.1	-
JUNE 2018	10/07/2018		milligrams per cubic metre				297.2	646.4	839.8	1500 mg/m^3
JUNE 2018	10/07/2018	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	232.3	326.9	394.3	600 ppm
JUNE 2018	10/07/2018		milligrams per cubic metre				664.0	934.2	1127.0	-
JUNE 2018	10/07/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.0%	7.0%	14.8%	-
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
May-17	3/07/2017	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0
May-17	3/07/2017	Carbon monoxide	ppm	1	1	97	
May-17	3/07/2017	Chlorine	milligrams per cubic metre	1	1	<0.006	200
May-17	3/07/2017	Copper	milligrams per cubic metre	1	1	0.0007	
May-17	3/07/2017	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.011	5
May-17	3/07/2017	Hydrogen chloride	milligrams per cubic metre	1	1	22.0	100
May-17	3/07/2017	Mercury	milligrams per cubic metre	1	1	0.00130	1.0
May-17	3/07/2017	Nitrogen oxides	milligrams per cubic metre	1	1	720	1500
May-17	3/07/2017	Solid particles	milligrams per cubic metre	1	1	24.0	100
May-17	3/07/2017	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	1.90	100
May-17	3/07/2017	Sulphur dioxide	milligrams per cubic metre	1	1	1100	
May-17	3/07/2017	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. This table contains the results from Boiler 3 tested on 30 May 2017**						

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
JUNE 2018	10/07/2018	Nitrogen Oxides	parts per million	Continuous	One hour	96.2%	100.3	213.6	277.2	-
JUNE 2018	10/07/2018		milligrams per cubic metre				205.9	438.4	569.0	1500 mg/m^3
JUNE 2018	10/07/2018	Sulphur dioxide	parts per million	Continuous	One hour	99.3%	104.6	156.2	198.2	600 ppm
JUNE 2018	10/07/2018		milligrams per cubic metre				298.9	446.4	566.5	-
JUNE 2018	10/07/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	1.8%	5.4%	9.4%	-
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
Jul-17	5/09/2017	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0
Jul-17	5/09/2017	Carbon monoxide	ppm	1	1	90	
Jul-17	5/09/2017	Chlorine	milligrams per cubic metre	1	1	0.0	200
Jul-17	5/09/2017	Copper	milligrams per cubic metre	1	1	0.0017	
Jul-17	5/09/2017	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.025	5
Jul-17	5/09/2017	Hydrogen chloride	milligrams per cubic metre	1	1	17.0	100
Jul-17	5/09/2017	Mercury	milligrams per cubic metre	1	1	0.00061	1.0
Jul-17	5/09/2017	Nitrogen oxides	milligrams per cubic metre	1	1	650	1500
Jul-17	5/09/2017	Solid particles	milligrams per cubic metre	1	1	48.0	100
Jul-17	5/09/2017	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	2.40	100
Jul-17	5/09/2017	Sulphur dioxide	milligrams per cubic metre	1	1	750	
Jul-17	5/09/2017	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. This table contains the results from Boiler 4 tested on 27 July 2017**						

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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)**
pH exceedance at EPL point 7 of 8.61 at 1355hrs before returning below the limit of 8.5 at 1400hrs
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
3-Jun-18
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
N/A
-
Cause of non-compliance
Potential instrument error.
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
pH monitor calibrated by onsite technician.
Action taken or that will be taken to prevent a recurrence of the non-compliance
Regular checks and calibration.