

Monthly Data Summary

BAYSWATER MONTHLY DATA SUMMARY DECEMBER 2019

LICENCE NO	779
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	DECEMBER 2019

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

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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 / measurement frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
DECEMBER 2019	15/01/2020	Oil and Grease	milligrams per litre	Fortnightly	5	<5	2.5	<5	10 mg/L
DECEMBER 2019	15/01/2020	Total suspended solids	milligrams per litre	Fortnightly	5	1.0	2.4	4.0	20 mg/L
DECEMBER 2019	15/01/2020	Volume discharge	kilolitres per week	Weekly during discharge	4	0	11,409	12,621	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
DECEMBER 2019	15/01/2020	Conductivity	uS/cm	Continuous	0.993	10.4	3475.3	4216.0	4500 uS/cm
DECEMBER 2019	15/01/2020	pH	pH Units	Continuous	0.993	7.8	8.1	8.4	6.5 - 8.5
DECEMBER 2019	15/01/2020	Volume discharge	Megalitres per month	Weekly during discharge	2		113.6		840 ML
Comments:									

Discharge & Monitoring Point 8

Discharge to waters

Discharge & monitoring point under the Hunter River Salinity Trading Scheme, Discharge pipe from Lake 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
DECEMBER 2019	15/01/2020	Conductivity	uS/cm	Continuous during discharge	1	2890.0	2890.0	2890.0	-
DECEMBER 2019	15/01/2020	pH	pH Units	Daily during discharge	1	8.1	8.1	8.1	6.5 - 8.5
DECEMBER 2019	15/01/2020	Total suspended solids	milligrams per litre	Monthly	1	<5	2.5	<5	30 mg/L
DECEMBER 2019	15/01/2020	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	700 ML
Comments: HRSTS discharge did not occur during December. Results obtained from routine monthly sampling									

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Discharge & Monitoring Point 17

Discharge to waters

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

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
DECEMBER 2019	15/01/2020	Conductivity	uS/cm	Continuous during discharge	1	8880.0	8880.0	8880.0	-
DECEMBER 2019	15/01/2020	pH	pH Units	Daily during discharge	1	8.7	8.7	8.7	6.5 - 9.5
DECEMBER 2019	15/01/2020	Total suspended solids	milligrams per litre	Monthly	1	<5	2.5	<5	30 mg/L
DECEMBER 2019	15/01/2020	Boron	milligrams per litre	Weekly during discharge	1	3.6	3.6	3.6	0.81
DECEMBER 2019	15/01/2020	Cadmium	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.0003
DECEMBER 2019	15/01/2020	Copper	milligrams per litre	Weekly during discharge	1	<0.001	0.0	<0.001	0.001
DECEMBER 2019	15/01/2020	Iron	milligrams per litre	Weekly during discharge	1	<0.05	0.0	<0.05	0.27
DECEMBER 2019	15/01/2020	Molybdenum	milligrams per litre	Weekly during discharge	1	0.5	0.5	0.5	0.29
DECEMBER 2019	15/01/2020	Nickel	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.19
DECEMBER 2019	15/01/2020	Silver	milligrams per litre	Weekly during discharge	1	<0.0001	0.0	<0.0001	0.0005
DECEMBER 2019	15/01/2020	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	20 ML
Comments:	HRSTS discharge did not occur during December. Results obtained from routine monthly sampling								

Discharge & Monitoring Point 18

Discharge to waters

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

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
DECEMBER 2019	15/01/2020	Conductivity	uS/cm	Weekly during discharge	0				-
DECEMBER 2019	15/01/2020	pH	pH Units	Weekly during discharge	0				6.5 - 9.5
DECEMBER 2019	15/01/2020	Total suspended solids	milligrams per litre	Weekly during discharge	0				30 mg/L
DECEMBER 2019	15/01/2020	Boron	milligrams per litre	Weekly during discharge	0				0.81
DECEMBER 2019	15/01/2020	Cadmium	milligrams per litre	Weekly during discharge	0				0.0003
DECEMBER 2019	15/01/2020	Copper	milligrams per litre	Weekly during discharge	0				0.001
DECEMBER 2019	15/01/2020	Iron	milligrams per litre	Weekly during discharge	0				0.27

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DECEMBER 2019	15/01/2020	Molybdenum	milligrams per litre	Weekly during discharge	0				0.29
DECEMBER 2019	15/01/2020	Nickel	milligrams per litre	Weekly during discharge	0				0.19
DECEMBER 2019	15/01/2020	Silver	milligrams per litre	Weekly during discharge	0				0.0005
Comments:	Discharge did not occur during December								

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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, 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
DECEMBER 2019	15/01/2020	Nitrogen Oxides	parts per million	Continuous	One hour	98.2%	105.4	188.2	279.0	-
DECEMBER 2019	15/01/2020		milligrams per cubic metre				216.3	386.3	572.6	1500 mg/m ³
DECEMBER 2019	15/01/2020	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	100.3	137.7	201.3	600 ppm
DECEMBER 2019	15/01/2020		milligrams per cubic metre				286.7	393.4	575.4	-
DECEMBER 2019	15/01/2020	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	1.7%	4.4%	7.4%	-
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
Oct-19	28/10/2019	Cadmium	milligrams per cubic metre	1	1	<0.0003	1.0
Oct-19	28/10/2019	Carbon monoxide	ppm	1	1	<2	
Oct-19	28/10/2019	Chlorine	milligrams per cubic metre	1	1	0.0	200
Oct-19	28/10/2019	Copper	milligrams per cubic metre	1	1	0.0011	
Oct-19	28/10/2019	Hazardous substances (Metals)	milligrams per cubic metre	1	1	<0.0082	5
Oct-19	28/10/2019	Hydrogen chloride	milligrams per cubic metre	1	1	14.0	100
Oct-19	28/10/2019	Mercury	milligrams per cubic metre	1	1	0.00048	1.0
Oct-19	28/10/2019	Nitrogen oxides	milligrams per cubic metre	1	1	670	1500
Oct-19	28/10/2019	Solid particles	milligrams per cubic metre	1	1	15.0	100
Oct-19	28/10/2019	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	10.00	100
Oct-19	28/10/2019	Sulphur dioxide	milligrams per cubic metre	1	1	1100	
Oct-19	28/10/2019	Total fluoride	milligrams per cubic metre	1	1	9.6	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.							

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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
DECEMBER 2019	15/01/2020	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	166.9	265.5	371.5	-
DECEMBER 2019	15/01/2020		milligrams per cubic metre				342.6	544.9	762.5	1500 mg/m ³
DECEMBER 2019	15/01/2020	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	185.0	237.1	349.9	600 ppm
DECEMBER 2019	15/01/2020		milligrams per cubic metre				528.6	677.6	1000.0	-
DECEMBER 2019	15/01/2020	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	3.0%	5.3%	9.7%	-
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			
Oct-19	28/10/2019	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0			
Oct-19	28/10/2019	Carbon monoxide	ppm	1	1	<2				
Oct-19	28/10/2019	Chlorine	milligrams per cubic metre	1	1	0.0	200			
Oct-19	28/10/2019	Copper	milligrams per cubic metre	1	1	<0.0003				
Oct-19	28/10/2019	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.01	5			
Oct-19	28/10/2019	Hydrogen chloride	milligrams per cubic metre	1	1	12.0	100			
Oct-19	28/10/2019	Mercury	milligrams per cubic metre	1	1	0.00064	1.0			
Oct-19	28/10/2019	Nitrogen oxides	milligrams per cubic metre	1	1	710	1500			
Oct-19	28/10/2019	Solid particles	milligrams per cubic metre	1	1	17.0	100			
Oct-19	28/10/2019	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	3.10	100			
Oct-19	28/10/2019	Sulphur dioxide	milligrams per cubic metre	1	1	1200				
Oct-19	28/10/2019	Total fluoride	milligrams per cubic metre	1	1	8.4	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.								

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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
DECEMBER 2019	15/01/2020	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	145.9	377.6	533.6	-
DECEMBER 2019	15/01/2020		milligrams per cubic metre				299.4	775.0	1095.2	1500 mg/m ³
DECEMBER 2019	15/01/2020	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	185.8	338.9	446.1	600 ppm
DECEMBER 2019	15/01/2020		milligrams per cubic metre				531.2	968.6	1275.0	-
DECEMBER 2019	15/01/2020	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.0%	5.3%	10.2%	-
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
Apr-19	9/05/2019	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0
Apr-19	9/05/2019	Carbon monoxide	ppm	1	1	<2	
Apr-19	9/05/2019	Chlorine	milligrams per cubic metre	1	1	0.0	200
Apr-19	9/05/2019	Copper	milligrams per cubic metre	1	1	0.0007	
Apr-19	9/05/2019	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.011	5
Apr-19	9/05/2019	Hydrogen chloride	milligrams per cubic metre	1	1	9.3	100
Apr-19	9/05/2019	Mercury	milligrams per cubic metre	1	1	0.00081	1.0
Apr-19	9/05/2019	Nitrogen oxides	milligrams per cubic metre	1	1	710	1500
Apr-19	9/05/2019	Solid particles	milligrams per cubic metre	1	1	7.5	100
Apr-19	9/05/2019	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	0.76	100
Apr-19	9/05/2019	Sulphur dioxide	milligrams per cubic metre	1	1	1100	
Apr-19	9/05/2019	Total fluoride	milligrams per cubic metre	1	1	7.6	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.							

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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
DECEMBER 2019	15/01/2020	Nitrogen Oxides	parts per million	Continuous	One hour	96.6%	100.1	188.3	392.7	-
DECEMBER 2019	15/01/2020		milligrams per cubic metre				205.5	386.4	806.0	1500 mg/m ³
DECEMBER 2019	15/01/2020	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	170.5	228.0	284.4	600 ppm
DECEMBER 2019	15/01/2020		milligrams per cubic metre				487.4	651.6	812.9	-
DECEMBER 2019	15/01/2020	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.3%	4.0%	6.9%	-
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			
Mar-19	13/05/2019	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0			
Mar-19	13/05/2019	Carbon monoxide	ppm	1	1	<3				
Mar-19	13/05/2019	Chlorine	milligrams per cubic metre	1	1	0.0	200			
Mar-19	13/05/2019	Copper	milligrams per cubic metre	1	1	0.0007				
Mar-19	13/05/2019	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.032	5			
Mar-19	13/05/2019	Hydrogen chloride	milligrams per cubic metre	1	1	3.8	100			
Mar-19	13/05/2019	Mercury	milligrams per cubic metre	1	1	0.00120	1.0			
Mar-19	13/05/2019	Nitrogen oxides	milligrams per cubic metre	1	1	860	1500			
Mar-19	13/05/2019	Solid particles	milligrams per cubic metre	1	1	15.0	100			
Mar-19	13/05/2019	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	5.20	100			
Mar-19	13/05/2019	Sulphur dioxide	milligrams per cubic metre	1	1	960				
Mar-19	13/05/2019	Total fluoride	milligrams per cubic metre	1	1	5.3	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 4.										

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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	