

# Monthly Data Summary

## BAYSWATER MONTHLY DATA SUMMARY JULY 2018

LICENCE NO	779
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	JULY 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 hoB Wing 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
JULY 2018	15/08/2018	Oil and Grease	milligrams per litre	Fortnightly	5	<5	3.0	5.0	10 mg/L
JULY 2018	15/08/2018	Total suspended solids	milligrams per litre	Fortnightly	5	<1	1.4	3.0	20 mg/L
JULY 2018	15/08/2018	Volume discharge	kilolitres per week	Weekly during discharge	5	0	8,656	14,056	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
JULY 2018	15/08/2018	Conductivity	uS/cm	Continuous	0.993	376.0	1872.5	3940.0	4500 uS/cm
JULY 2018	15/08/2018	pH	pH Units	Continuous	0.993	2.6	8.1	9.1	6.5 - 8.5
JULY 2018	15/08/2018	Volume discharge	Megalitres per month	Weekly during discharge	20		418.9		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
JULY 2018	15/08/2018	Conductivity	uS/cm	Continuous during discharge	1	2670.0	2670.0	2670.0	-
JULY 2018	15/08/2018	pH	pH Units	Daily during discharge	1	8.5	8.5	8.5	6.5 - 8.5
JULY 2018	15/08/2018	Total suspended solids	milligrams per litre	Monthly	1	14.0	14.0	14.0	30 mg/L
JULY 2018	15/08/2018	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	700 ML
Comments: HRSTS discharge did not occur during July. Results recorded here were obtained from routine monthly monitoring									

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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
JULY 2018	15/08/2018	Conductivity	uS/cm	Continuous during discharge	1	7450.0	7450.0	7450.0	-
JULY 2018	15/08/2018	pH	pH Units	Daily during discharge	1	8.6	8.6	8.6	6.5 - 9.5
JULY 2018	15/08/2018	Total suspended solids	milligrams per litre	Monthly	1	<5	2.5	<5	30 mg/L
JULY 2018	15/08/2018	Boron	milligrams per litre	Weekly during discharge	1	3.2	3.2	3.2	0.81
JULY 2018	15/08/2018	Cadmium	milligrams per litre	Weekly during discharge	1	<0.0001	0.0	<0.0001	0.0003
JULY 2018	15/08/2018	Copper	milligrams per litre	Weekly during discharge	1	<0.001	0.0	<0.001	0.001
JULY 2018	15/08/2018	Iron	milligrams per litre	Weekly during discharge	1	0.1	0.1	0.1	0.27
JULY 2018	15/08/2018	Molybdenum	milligrams per litre	Weekly during discharge	1	0.4	0.4	0.4	0.29
JULY 2018	15/08/2018	Nickel	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.19
JULY 2018	15/08/2018	Silver	milligrams per litre	Weekly during discharge	1	<0.0001	0.0	<0.0001	0.0005
JULY 2018	15/08/2018	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	20 ML
Comments:	HRSTS discharge did not occur during July. Results recorded here were obtained from routine monthly monitoring								

## 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
JULY 2018	15/08/2018	Conductivity	uS/cm	Weekly during discharge	0				-
JULY 2018	15/08/2018	pH	pH Units	Weekly during discharge	0				6.5 - 9.5
JULY 2018	15/08/2018	Total suspended solids	milligrams per litre	Weekly during discharge	0				30 mg/L
JULY 2018	15/08/2018	Boron	milligrams per litre	Weekly during discharge	0				0.81
JULY 2018	15/08/2018	Cadmium	milligrams per litre	Weekly during discharge	0				0.0003
JULY 2018	15/08/2018	Copper	milligrams per litre	Weekly during discharge	0				0.001

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JULY 2018	15/08/2018	Iron	milligrams per litre	Weekly during discharge	0				0.27
JULY 2018	15/08/2018	Molybdenum	milligrams per litre	Weekly during discharge	0				0.29
JULY 2018	15/08/2018	Nickel	milligrams per litre	Weekly during discharge	0				0.19
JULY 2018	15/08/2018	Silver	milligrams per litre	Weekly during discharge	0				0.0005
Comments:	Discharge did not occur during July								

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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
JULY 2018	15/08/2018	Nitrogen Oxides	parts per million	Continuous	One hour					-
JULY 2018	15/08/2018		milligrams per cubic metre							1500 mg/m <sup>3</sup>
JULY 2018	15/08/2018	Sulphur dioxide	parts per million	Continuous	One hour					600 ppm
JULY 2018	15/08/2018		milligrams per cubic metre							-
JULY 2018	15/08/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour					-
Comments:		Unit was out of service for the duration of the monitoring period								

## 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 <sup>3</sup>			
Oct-17	15/11/2017	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0			
Oct-17	15/11/2017	Carbon monoxide	ppm	1	1	<2				
Oct-17	15/11/2017	Chlorine	milligrams per cubic metre	1	1	0.0	200			
Oct-17	15/11/2017	Copper	milligrams per cubic metre	1	1	0.0005				
Oct-17	15/11/2017	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.013	5			
Oct-17	15/11/2017	Hydrogen chloride	milligrams per cubic metre	1	1	15.0	100			
Oct-17	15/11/2017	Mercury	milligrams per cubic metre	1	1	0.00180	1.0			
Oct-17	15/11/2017	Nitrogen oxides	milligrams per cubic metre	1	1	850	1500			
Oct-17	15/11/2017	Solid particles	milligrams per cubic metre	1	1	45.0	100			
Oct-17	15/11/2017	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	20.00	100			
Oct-17	15/11/2017	Sulphur dioxide	milligrams per cubic metre	1	1	950				
Oct-17	15/11/2017	Total fluoride	milligrams per cubic metre	1	1	9.9	50			
Comments:		Monitoring of emission from each of the 4 boilers for the substances in this table is required annually								

# 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
JULY 2018	15/08/2018	Nitrogen Oxides	parts per million	Continuous	One hour	98.4%	101.4	282.4	339.7	-
JULY 2018	15/08/2018		milligrams per cubic metre				208.1	579.6	697.3	1500 mg/m <sup>3</sup>
JULY 2018	15/08/2018	Sulphur dioxide	parts per million	Continuous	One hour	99.5%	118.0	230.4	272.3	600 ppm
JULY 2018	15/08/2018		milligrams per cubic metre				337.2	658.4	778.2	-
JULY 2018	15/08/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	2.0%	5.7%	12.8%	-
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, 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 <sup>3</sup>
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.							

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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
JULY 2018	15/08/2018	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	120.4	274.3	350.2	-
JULY 2018	15/08/2018		milligrams per cubic metre				247.2	562.9	718.7	1500 mg/m <sup>3</sup>
JULY 2018	15/08/2018	Sulphur dioxide	parts per million	Continuous	One hour	99.5%	100.3	290.3	357.5	600 ppm
JULY 2018	15/08/2018		milligrams per cubic metre				286.6	829.7	1021.8	-
JULY 2018	15/08/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	1.4%	5.5%	13.6%	-
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 <sup>3</sup>
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.							

# 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
JULY 2018	15/08/2018	Nitrogen Oxides	parts per million	Continuous	One hour	97.0%	103.6	299.5	429.8	-
JULY 2018	15/08/2018		milligrams per cubic metre				212.6	614.7	882.2	1500 mg/m <sup>3</sup>
JULY 2018	15/08/2018	Sulphur dioxide	parts per million	Continuous	One hour	97.0%	172.0	238.8	384.4	600 ppm
JULY 2018	15/08/2018		milligrams per cubic metre				491.7	682.6	1098.7	-
JULY 2018	15/08/2018	Opacity -Undifferentiated particles	Percent	Continuous	One hour	97.0%	3.0%	6.1%	11.3%	-
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 <sup>3</sup>
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.							



# Monthly Data Summary

<b>Details of Non-Compliance with Licence Conditions</b>
Licence condition number not complied with
Condition L3.6
Condition L3.6
Summary of particulars of the non-compliance ( <b>NO MORE THAN 50 WORDS</b> )
Low pH recorded at EPL pt7 between 0030hrs and 0100hrs on 13 July 2018. The incident did not result in material harm to the environment
High pH recorded at EPL pt7 between 2315hrs and 2355hrs on 19 July 2018. The incident did not result in material harm to the environment
If required, further details on particulars of non-compliance
-
-
Date(s) when the non-compliance occurred, if applicable
13-Jul-18
19-Jul-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
N/A
Cause of non-compliance
Incident caused by a leak from demineralisation plant effluent system
A leak from a pipe in the reverse osmosis effluent line of the water treatment system allowed effluent to enter a stormwater pipe
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
Source isolated on identification
Source isolated on identification
Action taken or that will be taken to prevent a recurrence of the non-compliance
Effluent system repaired to prevent recurrence.
Leak in the water treatment system effluent pipeline repaired