

# Monthly Data Summary

## BAYSWATER MONTHLY DATA SUMMARY AUGUST 2017

LICENCE NO	779
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	AUGUST 2017

### 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 hoBWinng 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
AUGUST 2017	11/09/2017	Oil and Grease	milligrams per litre	Fortnightly	5	<5	2.5	<5	10 mg/L
AUGUST 2017	11/09/2017	Total suspended solids	milligrams per litre	Fortnightly	5	3.0	5.4	7.0	20 mg/L
AUGUST 2017	11/09/2017	Volume discharge	kilolitres per week	Weekly during discharge	4	0	9,824	13,612	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
AUGUST 2017	11/09/2017	Conductivity	uS/cm	Continuous	100%	16.0	2621.4	4121.0	4500 uS/cm
AUGUST 2017	11/09/2017	pH	pH Units	Continuous	100%	6.2	8.1	8.3	6.5 - 8.5
AUGUST 2017	11/09/2017	Volume discharge	Megalitres per month	Weekly during discharge	24		398.4		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
AUGUST 2017	11/09/2017	Conductivity	uS/cm	Continuous during discharge	1	2510.0	2510.0	2510.0	-
AUGUST 2017	11/09/2017	pH	pH Units	Daily during discharge	1	8.4	8.4	8.4	6.5 - 8.5
AUGUST 2017	11/09/2017	Total suspended solids	milligrams per litre	Monthly	1	<5	2.5	<5	30 mg/L
AUGUST 2017	11/09/2017	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	700 ML
Comments: HRSTS discharge did not occur during August. Results from routine monthly sampling									

# 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 / measurement frequency	Samples collected and analysed	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
AUGUST 2017	11/09/2017	Conductivity	uS/cm	Continuous during discharge	1	6840.0	6840.0	6840.0	-
AUGUST 2017	11/09/2017	pH	pH Units	Daily during discharge	1	8.6	8.6	8.6	6.5 - 9.5
AUGUST 2017	11/09/2017	Total suspended solids	milligrams per litre	Monthly	1	9.0	9.0	9.0	30 mg/L
AUGUST 2017	11/09/2017	Boron	milligrams per litre	Weekly during discharge	1	2.1	2.1	2.1	0.81
AUGUST 2017	11/09/2017	Cadmium	milligrams per litre	Weekly during discharge	1	<0.0001	0.0	<0.0001	0.0003
AUGUST 2017	11/09/2017	Copper	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.001
AUGUST 2017	11/09/2017	Iron	milligrams per litre	Weekly during discharge	1	0.1	0.1	0.1	0.27
AUGUST 2017	11/09/2017	Molybdenum	milligrams per litre	Weekly during discharge	1	0.3	0.3	0.3	0.29
AUGUST 2017	11/09/2017	Nickel	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.19
AUGUST 2017	11/09/2017	Silver	milligrams per litre	Weekly during discharge	1	<0.0001	0.0	<0.0001	0.0005
AUGUST 2017	11/09/2017	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	20 ML
Comments:	HRSTS discharge did not occur during August. Results 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 / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
AUGUST 2017	11/09/2017	Nitrogen Oxides	parts per million	Continuous	One hour	84.1%	100.0	152.9	252.7	-
AUGUST 2017	11/09/2017		milligrams per cubic metre				205.3	313.9	518.7	1500 mg/m <sup>3</sup>
AUGUST 2017	11/09/2017	Sulphur dioxide	parts per million	Continuous	One hour	98.7%	100.7	155.2	336.4	600 ppm
AUGUST 2017	11/09/2017		milligrams per cubic metre				287.7	443.6	961.4	-
AUGUST 2017	11/09/2017	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	1.4%	4.8%	8.5%	-
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 <sup>3</sup>			
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	5.1	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	1	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	920				
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 / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
AUGUST 2017	11/09/2017	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	3.0%	5.3%	8.8%	-
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 <sup>3</sup>
Sep-16	15/11/2016	Cadmium	milligrams per cubic metre	1	1	<0.0002	1.0
Sep-16	15/11/2016	Carbon monoxide	ppm	1	1	12	
Sep-16	15/11/2016	Chlorine	milligrams per cubic metre	1	1	<0.007	200
Sep-16	15/11/2016	Copper	milligrams per cubic metre	1	1	0.0016	
Sep-16	15/11/2016	Hazardous substances (Metals)	milligrams per cubic metre	1	1	≤0.031	5
Sep-16	15/11/2016	Hydrogen chloride	milligrams per cubic metre	1	1	11.0	100
Sep-16	15/11/2016	Mercury	milligrams per cubic metre	1	1	0.00320	1.0
Sep-16	15/11/2016	Nitrogen oxides	milligrams per cubic metre	1	1	1	1500
Sep-16	15/11/2016	Solid particles	milligrams per cubic metre	1	1	31.0	100
Sep-16	15/11/2016	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	2.70	100
Sep-16	15/11/2016	Sulphur dioxide	milligrams per cubic metre	1	1	1100	
Sep-16	15/11/2016	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 2 tested on 27 September 2016							

# 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 / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
AUGUST 2017	11/09/2017	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	3.5%	5.9%	11.6%	-
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	1	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, 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
AUGUST 2017	11/09/2017	Opacity -Undifferentiated particles	Percent	Continuous	One hour	99.3%	2.9%	5.4%	9.5%	-
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	1	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							

# Monthly Data Summary

<b>Details of Non-Compliance with Licence Conditions</b>
Licence condition number not complied with
Condition L3.6
Summary of particulars of the non-compliance <b>(NO MORE THAN 50 WORDS)</b>
At 6:40pm, EPL Point 7 recorded a reading of 6.38 which is below the pH limit of 6.5. The pH at EPL Point 7 remained below 6.5 until approximately 7.10pm when the pH returned a reading of 6.59. The minimum pH reading recorded during this event was 6.19, which was recorded at 6.55pm
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
26-Aug-17
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
The cause, while still under investigation, appears to be a blocked drainage pipe during an air heater wash which resulted in wash water draining through duct drains to the concrete outside the bunded area. The storm drains in this area were covered as a precaution however it is suspected that a small volume of pooled water leaked past these controls.
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
Action taken by AGL Macquarie included immediate stoppage of the air heater wash and an increase to Cooling Tower blowdown to regulate the pH and return it to a level above pH 6.5. The event did not cause or threaten material harm to the environment
Action taken or that will be taken to prevent a recurrence of the non-compliance
Complete the investigation into the incident and include all further preventative controls in the procedure for future air heater wash tasks.