

Monthly Data Summary

BAYSWATER MONTHLY DATA SUMMARY OCTOBER 2016

LICENCE NO	779
LICENCE HOLDER	AGL Macquarie
REPORTING PERIOD	OCTOBER 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 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
OCTOBER 2016	1/03/2015	Oil and Grease	milligrams per litre	Fortnightly	4	<5	2.5	<5	10 mg/L
OCTOBER 2016	1/03/2015	Total suspended solids	milligrams per litre	Fortnightly	4	<1	1.6	3.0	20 mg/L
OCTOBER 2016	1/03/2015	Volume discharge	kilolitres per week	Weekly during discharge	4	0	9,163	11,107	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
OCTOBER 2016	1/03/2015	Conductivity	uS/cm	Weekly	4	3010.0	3250.0	3440.0	4500 uS/cm
OCTOBER 2016	1/03/2015	pH	pH Units	Weekly	4	8.2	8.3	8.3	6.5 - 8.5
OCTOBER 2016	1/03/2015	Volume discharge	Megalitres per month	Weekly during discharge	22		307.9		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
OCTOBER 2016	1/03/2015	Conductivity	uS/cm	Continuous during discharge	1	2230.0	2230.0	2230.0	-
OCTOBER 2016	1/03/2015	pH	pH Units	Daily during discharge	1	8.3	8.3	8.3	6.5 - 8.5
OCTOBER 2016	1/03/2015	Total suspended solids	milligrams per litre	Monthly	1	6.0	6.0	6.0	30 mg/L
OCTOBER 2016	1/03/2015	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	700 ML
Comments: HRSTS discharge did not occur during October. 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
OCTOBER 2016	1/03/2015	Conductivity	uS/cm	Continuous during discharge	1	6730.0	6730.0	6730.0	-
OCTOBER 2016	1/03/2015	pH	pH Units	Daily during discharge	1	8.6	8.6	8.6	6.5 - 9.5
OCTOBER 2016	1/03/2015	Total suspended solids	milligrams per litre	Monthly	1	10.0	10.0	10.0	30 mg/L
OCTOBER 2016	1/03/2015	Boron	milligrams per litre	Weekly during discharge	1	2.6	2.6	2.6	0.81
OCTOBER 2016	1/03/2015	Cadmium	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.0003
OCTOBER 2016	1/03/2015	Copper	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.001
OCTOBER 2016	1/03/2015	Iron	milligrams per litre	Weekly during discharge	1	<0.05	0.0	<0.05	0.27
OCTOBER 2016	1/03/2015	Molybdenum	milligrams per litre	Weekly during discharge	1	0.3	0.3	0.3	0.29
OCTOBER 2016	1/03/2015	Nickel	milligrams per litre	Weekly during discharge	1	0.0	0.0	0.0	0.19
OCTOBER 2016	1/03/2015	Silver	milligrams per litre	Weekly during discharge	1	<0.0001	0.0	<0.0001	0.0005
OCTOBER 2016	1/03/2015	Volume discharge	Megalitres per day	Daily during discharge	-	-	-	-	20 ML
Comments:	HRSTS discharge did not occur during October. 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
OCTOBER 2016	1/03/2015	Nitrogen Oxides	parts per million	Continuous	One hour	100.0%	160.9	318.6	505.9	700 ppm
OCTOBER 2016	1/03/2015		milligrams per cubic metre				330.3	653.8	1038.4	1500 mg/m ³
OCTOBER 2016	1/03/2015	Sulphur dioxide	parts per million	Continuous	One hour	100.0%	276.3	361.2	555.6	600 ppm
OCTOBER 2016	1/03/2015		milligrams per cubic metre				789.7	1032.4	1587.9	-
OCTOBER 2016	1/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	4.1%	6.5%	10.7%	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	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	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 / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
OCTOBER 2016	1/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	4.2%	9.5%	14.1%	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. October 16 were not available at the time of reporting.							

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 / measurement frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
OCTOBER 2016	1/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	5.4%	8.5%	13.9%	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. October 16 test results were not available at time of reporting.							

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
OCTOBER 2016	1/03/2015	Opacity -Undifferentiated particles	Percent	Continuous	One hour	100.0%	4.4%	7.3%	10.9%	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, 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			
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	1	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.										

Monthly Data Summary

Details of Non-Compliance with Licence Conditions
Licence condition number not complied with
O3.1
Summary of particulars of the non-compliance (NO MORE THAN 50 WORDS)
The Ravensworth Ash Plant A silo conditioner tripped. Shortly after a leak commenced above the A Silo conditioner releasing a quantity of flyash to the ground and atmosphere.
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
5-Oct-16
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 immediate cause was a failed boot seal on the A Silo conditioner weigher.
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
PIRMP activated. Flyash to the Ravensworth system halted. Bayswater generation reduced and ash diverted from the Ravensworth system. Closure of the A Silo main isolation valve. Site cleanup commenced
Action taken or that will be taken to prevent a recurrence of the non-compliance
New boot seal fitted to conditioner weigher. All valves inspected and tested. New boot seal fitted to B Silo as a precaution. Such further action, as is required to prevent a similar incident, that is revealed by the ongoing investigation.