

# Monthly Data Summary

## BAYSWATER MONTHLY DATA SUMMARY SEPTEMBER 2017

|                  |                |
|------------------|----------------|
| LICENCE NO       | 779            |
| LICENCE HOLDER   | AGL Macquarie  |
| REPORTING PERIOD | SEPTEMBER 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 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 |
|----------------|---------------------|------------------------|----------------------|----------------------------------|--------------------------------|---------------------|-----------------|----------------------|-----------|
| SEPTEMBER 2017 | 18/10/2017          | Oil and Grease         | milligrams per litre | Fortnightly                      | 4                              | <5                  | 2.5             | <5                   | 10 mg/L   |
| SEPTEMBER 2017 | 18/10/2017          | Total suspended solids | milligrams per litre | Fortnightly                      | 4                              | 3.0                 | 3.8             | 5.0                  | 20 mg/L   |
| SEPTEMBER 2017 | 18/10/2017          | Volume discharge       | kilolitres per week  | Weekly during discharge          | 4                              | 0                   | 8,425           | 10,297               | 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  |
|----------------|---------------------|------------------|----------------------|----------------------------------|--------------------------------|---------------------|-----------------|----------------------|------------|
| SEPTEMBER 2017 | 18/10/2017          | Conductivity     | uS/cm                | Continuous                       | 99.3                           | 977.0               | 2524.1          | 3290.0               | 4500 uS/cm |
| SEPTEMBER 2017 | 18/10/2017          | pH               | pH Units             | Continuous                       | 99.3                           | 7.2                 | 8.1             | 8.3                  | 6.5 - 8.5  |
| SEPTEMBER 2017 | 18/10/2017          | Volume discharge | Megalitres per month | Weekly during discharge          | 24                             |                     | 293.6           |                      | 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 |
|---|---------------------|------------------------|----------------------|----------------------------------|--------------------------------|---------------------|-----------------|----------------------|-----------|
| SEPTEMBER 2017  | 18/10/2017          | Conductivity           | uS/cm                | Continuous during discharge      | 1                              | 2560.0              | 2560.0          | 2560.0               | -         |
| SEPTEMBER 2017  | 18/10/2017          | pH                     | pH Units             | Daily during discharge           | 1                              | 8.4                 | 8.4             | 8.4                  | 6.5 - 8.5 |
| SEPTEMBER 2017  | 18/10/2017          | Total suspended solids | milligrams per litre | Monthly                          | 1                              | 6.0                 | 6.0             | 6.0                  | 30 mg/L   |
| SEPTEMBER 2017  | 18/10/2017          | Volume discharge       | Megalitres per day   | Daily during discharge           | -                              | -                   | -               | -                    | 700 ML    |
| Comments: HRSTS discharge did not occur during September 2017. Results obtained from routine monthly monitoring |                     |                        |                      |                                  |                                |                     |                 |                      |           |

# 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 |
|----------------|---|------------------------|----------------------|----------------------------------|--------------------------------|---------------------|-----------------|----------------------|-----------|
| SEPTEMBER 2017 | 18/10/2017  | Conductivity           | uS/cm                | Continuous during discharge      | 1                              | 7030.0              | 7030.0          | 7030.0               | -         |
| SEPTEMBER 2017 | 18/10/2017  | pH                     | pH Units             | Daily during discharge           | 1                              | 8.7                 | 8.7             | 8.7                  | 6.5 - 9.5 |
| SEPTEMBER 2017 | 18/10/2017  | Total suspended solids | milligrams per litre | Monthly                          | 1                              | 14.0                | 14.0            | 14.0                 | 30 mg/L   |
| SEPTEMBER 2017 | 18/10/2017  | Boron                  | milligrams per litre | Weekly during discharge          | 1                              | 2.8                 | 2.8             | 2.8                  | 0.81      |
| SEPTEMBER 2017 | 18/10/2017  | Cadmium                | milligrams per litre | Weekly during discharge          | 1                              | <0.0001             | 0.0             | <0.0001              | 0.0003    |
| SEPTEMBER 2017 | 18/10/2017  | Copper                 | milligrams per litre | Weekly during discharge          | 1                              | 0.0                 | 0.0             | 0.0                  | 0.001     |
| SEPTEMBER 2017 | 18/10/2017  | Iron                   | milligrams per litre | Weekly during discharge          | 1                              | 0.1                 | 0.1             | 0.1                  | 0.27      |
| SEPTEMBER 2017 | 18/10/2017  | Molybdenum             | milligrams per litre | Weekly during discharge          | 1                              | 0.3                 | 0.3             | 0.3                  | 0.29      |
| SEPTEMBER 2017 | 18/10/2017  | Nickel                 | milligrams per litre | Weekly during discharge          | 1                              | 0.0                 | 0.0             | 0.0                  | 0.19      |
| SEPTEMBER 2017 | 18/10/2017  | Silver                 | milligrams per litre | Weekly during discharge          | 1                              | 0.0                 | 0.0             | 0.0                  | 0.0005    |
| SEPTEMBER 2017 | 18/10/2017  | Volume discharge       | Megalitres per day   | Daily during discharge           | -                              | -                   | -               | -                    | 20 ML     |
| Comments:      | HRSTS discharge did not occur during September 2017. Results obtained from routine monthly monitoring |                        |                      |                                  |                                |                     |                 |                      |           |

# 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              |
|----------------|---------------------|-------------------------------------|----------------------------|----------------------------------|------------------|----------------|---------------------|-----------------|----------------------|------------------------|
| SEPTEMBER 2017 | 18/10/2017          | Nitrogen Oxides                     | parts per million          | Continuous                       | One hour         | 100.0%         | 100.2               | 256.5           | 507.7                | -                      |
| SEPTEMBER 2017 | 18/10/2017          |                                     | milligrams per cubic metre |                                  |                  |                | 205.6               | 526.4           | 1042.1               | 1500 mg/m <sup>3</sup> |
| SEPTEMBER 2017 | 18/10/2017          | Sulphur dioxide                     | parts per million          | Continuous                       | One hour         | 100.0%         | 122.5               | 211.3           | 312.4                | 600 ppm                |
| SEPTEMBER 2017 | 18/10/2017          |                                     | milligrams per cubic metre |                                  |                  |                | 350.1               | 604.0           | 892.9                | -                      |
| SEPTEMBER 2017 | 18/10/2017          | Opacity -Undifferentiated particles | Percent                    | Continuous                       | One hour         | 100.0%         | 1.7%                | 4.7%            | 18.2%                | -                      |
| 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                              | 510          | 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 |
|----------------|---------------------|-------------------------------------|-----------------|----------------------------------|------------------|----------------|---------------------|-----------------|----------------------|-----------|
| SEPTEMBER 2017 | 18/10/2017          | Opacity -Undifferentiated particles | Percent         | Continuous                       | One hour         | 100.0%         | 2.6%                | 5.6%            | 11.3%                | -         |
| 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                              | 880          | 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 |
|----------------|---------------------|-------------------------------------|-----------------|----------------------------------|------------------|----------------|---------------------|-----------------|----------------------|-----------|
| SEPTEMBER 2017 | 18/10/2017          | Opacity -Undifferentiated particles | Percent         | Continuous                       | One hour         | 100.0%         | 3.7%                | 6.6%            | 11.2%                | -         |
| 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 <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. 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 |
|----------------|---------------------|-------------------------------------|-----------------|----------------------------------|------------------|----------------|---------------------|-----------------|----------------------|-----------|
| SEPTEMBER 2017 | 18/10/2017          | Opacity -Undifferentiated particles | Percent         | Continuous                       | One hour         | 94.8%          | 2.2%                | 5.7%            | 9.3%                 | -         |
| 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. This table contains the results from Boiler 4 tested on 27 July 2017 |                     |  |                            |                                    |                                |              |                             |  |  |  |

# Monthly Data Summary

| 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   |  |
|  |  |