

Monthly Data Summary

LIDDELL MONTHLY DATA SUMMARY OCTOBER 2015

LICENCE NO	2122
LICENCE HOLDER	AGL MACQUARIE
REPORTING PERIOD	OCTOBER 2015

A1 Licence Holder

Licence Number 2122
Licence Holder AGL MACQUARIE
Trading Name (if applicable)
ABN 18 167 859 494

A2 Premises to which Licence Applies (if applicable)

Common Name (if any) LIDDELL POWER STATION
Premises NEW ENGLAND HIGHWAY MUSWELLBROOK NSW 2333

A3 Activities to which Licence Applies

Electricity Generating Works
Coal Works

A4 Other Activities (if applicable)

Helicopter-related facilities
Chemical storage
Operation of Emergency 1.5 MW diesel generator
Operation of Gas turbine
Sewage treatment
Waste storage

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
Coal works	> 5,000,000.00	T handled
Generation of electrical power from coal	> 4,000.00	Gwh generated

Monthly Data Summary

Discharge & Monitoring Point 7

301204 East 6416350 North

Discharge to Air

In the flue gases of unit 1 boiler labelled as "Unit 1 Boiler 1-2 Chimney Stack" on plan no. LD 800474 amended 03 and dated 6/5/2003

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 2015	13/11/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour	>99%	463.1	686.7	1420.6	1500 mg/m ³
OCTOBER 2015	13/11/2015		parts per million				225.6	334.6	692.1	700 ppm
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour	>99%	831.5	1167.6	3027.0	
OCTOBER 2015	13/11/2015		parts per million				290.9	408.5	1059.1	600 ppm
OCTOBER 2015	13/11/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour	>99%	2.3	4.8	7.8	20%
Comments:										

Annual monitoring of discharges to air

Air emission monitoring, Boiler 1 stack emissions, shown on plan no LD800474 amended 03 and dated 6/5/2003

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
OCTOBER 2015	13/11/2015	Cadmium	milligrams per cubic metre	1	1	<0.12	1.0
OCTOBER 2015	13/11/2015	Chlorine	milligrams per cubic metre	1	1	0.0	200
OCTOBER 2015	13/11/2015	Copper	milligrams per cubic metre	1	1	0.730	
OCTOBER 2015	13/11/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.015	5
OCTOBER 2015	13/11/2015	Hydrogen chloride	milligrams per cubic metre	1	1	10.0	100
OCTOBER 2015	13/11/2015	Mercury	milligrams per cubic metre	1	1	0.490	1.0
OCTOBER 2015	13/11/2015	Nitrogen oxides	milligrams per cubic metre	1	1	840	1500
OCTOBER 2015	13/11/2015	Solid particles	milligrams per cubic metre	1	1	24.0	100
OCTOBER 2015	13/11/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	12.000	100
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	1	1	1000	
OCTOBER 2015	13/11/2015	Total fluoride	milligrams per cubic metre	1	1	11.0	50
OCTOBER 2015	13/11/2015	Volatile organic compounds	milligrams per cubic metre	1	1	<0.0087	
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. Tested 8-Sept-15							

Monthly Data Summary

Discharge & Monitoring Point 8

301204 East 6416350 North

In the flue gases of unit 2 boiler labelled as "Unit 2 Boiler 1-2 Chimney Stack" on plan no LD800474 amended 03 and dated 6/5/2003

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 2015	13/11/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour	>99%	404	614	797	1500 mg/m ³
OCTOBER 2015	13/11/2015		parts per million				197	299	388	700 ppm
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour	>99%	810	1173	1862	
OCTOBER 2015	13/11/2015		parts per million				283	410	652	600 ppm
OCTOBER 2015	13/11/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour	>99%	3.4	5.5	8.3	20%
Comments:										

Annual monitoring of discharges to air

Air emission monitoring, Boiler 2 stack emissions, shown on plan no LD800474 amended 03 and dated 6/5/2003

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
OCTOBER 2015	13/11/2015	Cadmium	milligrams per cubic metre	1	1	0.0096	1.0
OCTOBER 2015	13/11/2015	Chlorine	milligrams per cubic metre	1	1	<0.0042	200
OCTOBER 2015	13/11/2015	Copper	milligrams per cubic metre	1	1	1.3000	
OCTOBER 2015	13/11/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.014	5
OCTOBER 2015	13/11/2015	Hydrogen chloride	milligrams per cubic metre	1	1	16.0	100
OCTOBER 2015	13/11/2015	Mercury	milligrams per cubic metre	1	1	0.3300	1.0
OCTOBER 2015	13/11/2015	Nitrogen oxides	milligrams per cubic metre	1	1	530	1500
OCTOBER 2015	13/11/2015	Solid particles	milligrams per cubic metre	1	1	21.0	100
OCTOBER 2015	13/11/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	7.200	100
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	1	1	1100	
OCTOBER 2015	13/11/2015	Total fluoride	milligrams per cubic metre	1	1	9.6	50
OCTOBER 2015	13/11/2015	Volatile organic compounds	milligrams per cubic metre	1	1	<0.013	
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. Tested 9-Sept-15							

Monthly Data Summary

Discharge & Monitoring Point 9

301204 East 6416350 North

In the flue gases of unit 3 boiler labelled as "Unit 3 Boiler 3-4 Chimney Stack" on plan no LD800474 amended 03 and dated 6/5/2003

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 2015	13/11/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour					1500 mg/m ³
OCTOBER 2015	13/11/2015		parts per million							700 ppm
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour					600 ppm
OCTOBER 2015	13/11/2015		parts per million							
OCTOBER 2015	13/11/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour					20%
Comments:		Unit out of service during sampling period								

Annual monitoring of discharges to air

Air emission monitoring, Boiler 3 stack emissions, shown on plan no LD800474 amended 03 and dated 6/5/2003

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	
		Cadmium	milligrams per cubic metre	1	1		1.0	
		Chlorine	milligrams per cubic metre	1	1		200	
		Copper	milligrams per cubic metre	1	1			
		Hazardous substances (Metals)	milligrams per cubic metre	1	1		5	
		Hydrogen chloride	milligrams per cubic metre	1	1		100	
		Mercury	milligrams per cubic metre	1	1		1.0	
		Nitrogen oxides	milligrams per cubic metre	1	1		1500	
		Solid particles	milligrams per cubic metre	1	1		100	
		Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1		100	
		Sulphur dioxide	milligrams per cubic metre	1	1			
		Total fluoride	milligrams per cubic metre	1	1		50	
		Volatile organic compounds	milligrams per cubic metre	1	1			
Comments:		Unit out of service during sampling period						

Monthly Data Summary

Discharge & Monitoring Point 10

301204 East 6416350 North

In the flue gases of unit 4 boiler labelled as "Unit 4 Boiler 3-4 Chimney Stack" on plan no LD800474 amended 03 and dated 6/5/2003

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 2015	13/11/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour	>99%	370.8	599.3	771.5	1500 mg/m ³
OCTOBER 2015	13/11/2015		parts per million				180.7	292.0	375.9	700 ppm
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour	>99%	796.1	1104.7	1383.4	
OCTOBER 2015	13/11/2015		parts per million				278.6	386.5	484.0	600 ppm
OCTOBER 2015	13/11/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour	>99%	7.0	9.1	12.0	20%
Comments:										

Annual monitoring of discharges to air

Air emission monitoring, Boiler 4 stack emissions, shown on plan no LD800474 amended 03 and dated 6/5/2003

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
OCTOBER 2015	13/11/2015	Cadmium	milligrams per cubic metre	1	1	<0.00014	1.0
OCTOBER 2015	13/11/2015	Chlorine	milligrams per cubic metre	1	1	0.1	200
OCTOBER 2015	13/11/2015	Copper	milligrams per cubic metre	1	1	0.007	
OCTOBER 2015	13/11/2015	Hazardous substances (Metals)	milligrams per cubic metre	1	1	0.011	5
OCTOBER 2015	13/11/2015	Hydrogen chloride	milligrams per cubic metre	1	1	13.0	100
OCTOBER 2015	13/11/2015	Mercury	milligrams per cubic metre	1	1	0.00008	1.0
OCTOBER 2015	13/11/2015	Nitrogen oxides	milligrams per cubic metre	1	1	790	1500
OCTOBER 2015	13/11/2015	Solid particles	milligrams per cubic metre	1	1	31.0	100
OCTOBER 2015	13/11/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	1.300	100
OCTOBER 2015	13/11/2015	Sulphur dioxide	milligrams per cubic metre	1	1	890	
OCTOBER 2015	13/11/2015	Total fluoride	milligrams per cubic metre	1	1	7.7	50
OCTOBER 2015	13/11/2015	Volatile organic compounds	milligrams per cubic metre	1	1	<0.019	
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. Tested 12-May-15							

Monthly Data Summary

Details of Non-Compliance with Licence
Summary of particulars of the non-compliance (NO MORE THAN 50 WORDS)
1. Exceedance of Sulphur Dioxide trigger level EPL point 8 2. Water release to ground in an Endangered Ecological Community (EEC) area
If required, further details on particulars of non-compliance
-
Date(s) when the non-compliance occurred, if applicable
1. 2/10/2015 2. 7/10/2015
If applicable, registration numbers of any vehicles or the chassis number of any mobile plant involved in the non-compliance
NA
Cause of non-compliance
1. Exceedance of 600ppm emission limit on corrected values 2. Return water line drained at scour valve after failure. Water flowed through EEC to dump valve basin
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
1. Adjustment of operation to correct SO2 levels 2. Pipe extension from scour valve to ensure drainage straight to dump valve basin
Action taken or that will be taken to prevent a recurrence of the non-compliance
1. Management of fuel supplies and operational control to correct SO2 excursions. 2. Pipe extension from scour valve to ensure drainage straight to dump valve basin. Operating instructions issued regarding use of scour valve drain.

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