Monthly Data Summary

LIDDELL MONTHLY DATA SUMMARY APRIL 2015

LICENCE NO	**2122**
LICENCE HOLDER	AGL MACQUARIE
REPORTING PERIOD	01/04/2015 to 30/04/2015

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 1boiler 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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Apr-15	15/05/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour					1500 mg/m^3
Apr-15	15/05/2015		parts per million							700 ppm
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour					
Apr-15	15/05/2015		parts per million							600 ppm
Apr-15	15/05/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour					20%
Comments:	**Unit 1 out of service for the entire monitoring period**									

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
Apr-15	15/05/2015	Cadmium	milligrams per cubic metre	1			1.0
Apr-15	15/05/2015	Chlorine	milligrams per cubic metre	1			200
Apr-15	15/05/2015	Copper	milligrams per cubic metre	1			
Apr-15	15/05/2015	Hazardous substances (Metals)	milligrams per cubic metre	1			5
Apr-15	15/05/2015	Hydrogen chloride	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Nitrogen oxides	milligrams per cubic metre	1			1500
Apr-15	15/05/2015	Solid particles	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	1			
Apr-15	15/05/2015	Total fluoride	milligrams per cubic metre	1			50
Apr-15	15/05/2015	Volatile organic compounds	milligrams per cubic metre	1			
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. **Boiler 1 was not available for testing during this monitoring period.**						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Apr-15	15/05/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour	>99%	248	618	751	1500 mg/m3
Apr-15	15/05/2015		parts per million				121	301	366	700 ppm
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour	>99%	788	1151	1327	
Apr-15	15/05/2015		parts per million				276	403	464	600 ppm
Apr-15	15/05/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour	>99%	1.0	3.7	12.1	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
Apr-15	15/05/2015	Cadmium	milligrams per cubic metre	1	1	0.00	1.0
Apr-15	15/05/2015	Chlorine	milligrams per cubic metre	1	1	0.06	200
Apr-15	15/05/2015	Copper	milligrams per cubic metre	1	1	0.00	
Apr-15	15/05/2015	Hazardous substances	milligrams per cubic metre	1	1	0.01	5
Apr-15	15/05/2015	Hydrogen chloride	milligrams per cubic metre	1	1	28.00	100
Apr-15	15/05/2015	Nitrogen oxides	milligrams per cubic metre	1	1	600.00	1500
Apr-15	15/05/2015	Solid particles	milligrams per cubic metre	1	1	12.00	100
Apr-15	15/05/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	0.77	100
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	1	1	1100.00	
Apr-15	15/05/2015	Total fluoride	milligrams per cubic metre	1	1	12.00	50
Apr-15	15/05/2015	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. **This table contains the latest results from Boiler 2.**						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Apr-15	15/05/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour	>99%	468.3	608.9	747.8	1500 mg/m3
Apr-15	15/05/2015		parts per million				228.1	296.7	364.3	700 ppm
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour	>99%	851.1	1058.7	1257.9	
Apr-15	15/05/2015		parts per million				297.8	370.4	440.1	600 ppm
Apr-15	15/05/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour	>99%	1.5	5.1	0.0	20%
Comments:										

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
Apr-15	15/05/2015	Cadmium	milligrams per cubic metre	1	1	0.00	1.0
Apr-15	15/05/2015	Chlorine	milligrams per cubic metre	1	1	0.04	200
Apr-15	15/05/2015	Copper	milligrams per cubic metre	1	1	0.00	
Apr-15	15/05/2015	Hazardous substances	milligrams per cubic metre	1	1	0.01	5
Apr-15	15/05/2015	Hydrogen chloride	milligrams per cubic metre	1	1	19.00	100
Apr-15	15/05/2015	Nitrogen oxides	milligrams per cubic metre	1	1	610.00	1500
Apr-15	15/05/2015	Solid particles	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1	1	0.71	100
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	1	1	1400.00	
Apr-15	15/05/2015	Total fluoride	milligrams per cubic metre	1	1	11.00	50
Apr-15	15/05/2015	Volatile organic compounds	milligrams per cubic metre	1	1	<0.015	
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. This table contains the latest results from Boiler 3. **Please note: Due to a fault with the test the Solid Particle results are unavailable at this time. Results will be issued as soon as they become available.**						

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 / measurment frequency	Averaging period	Data capture %	Lowest sample value	Mean of samples	Highest sample value	EPL Limit
Apr-15	15/05/2015	Nitrogen Oxides	milligrams per cubic metre	Continuous	One hour	>99%	258.6	503.5	630.4	1500 mg/m3
Apr-15	15/05/2015		parts per million				126.0	245.3	307.1	700 ppm
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	Continuous	One hour	>99%	805.3	1100.6	1307.0	
Apr-15	15/05/2015		parts per million				281.8	385.1	457.3	600 ppm
Apr-15	15/05/2015	Opacity - Undifferentiated particles	Percent	Continuous	One hour	>99%	1.2	3.0	12.3	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
Apr-15	15/05/2015	Cadmium	milligrams per cubic metre	1			1.0
Apr-15	15/05/2015	Chlorine	milligrams per cubic metre	1			200
Apr-15	15/05/2015	Copper	milligrams per cubic metre	1			
Apr-15	15/05/2015	Haxardous substances	milligrams per cubic metre	1			5
Apr-15	15/05/2015	Hydrogen chloride	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Nitrogen oxides	milligrams per cubic metre	1			1500
Apr-15	15/05/2015	Solid particles	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Sulfuric acid mist and sulfur trioxide	milligrams per cubic metre	1			100
Apr-15	15/05/2015	Sulphur dioxide	milligrams per cubic metre	1			
Apr-15	15/05/2015	Total fluoride	milligrams per cubic metre	1			50
Apr-15	15/05/2015	Volatile organic compounds	milligrams per cubic metre	1			
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. **Results are not yet available for Boiler 4 for this reporting period.**						

Monthly Data Summary

Details of Non-Compliance with Licence
Summary of particulars of the non-compliance **(NO MORE THAN 50 WORDS)**
1. Licence condition L1.1 2. Licence condition L1.1 3. Licence condition L1.1
If required, further details on particulars of non-compliance
1. Leak from Liddell Ash Dam underground return water line 2. Oil sheen on surface of outfall canal 3. Dump Valve Basin decant water pipeline failure
Date(s) when the non-compliance occurred, if applicable
1. 01 April 2015 2. 08 April 2015 3. 16 April 2015
If applicable, registration numbers of any vehicles or the chassis number of any mobile plant involved in the non-compliance
1. N/A 2. N/A 3. N/A
Cause of non-compliance
1. It is considered most likely that the leak was caused by a joint on the buried pipeline becoming dislodged or compromised/ potentially as a result of ground movements. 2. Failure of an oil line within the Unit 2 steam feed pump oil cooler allowing oil to cross to the water side of the cooler. 3. Failure of a conection between old and new sections of pipe
Action taken or that will be taken to mitigate any adverse effects of the non-compliance
1. The return water line was isolated to prevent continued water leak 2. Detailed investigation to find the source as soon as the sheen was identified. Once identified the pump was isolated to prevent further leaks 3. Pump isolated
Action taken or that will be taken to prevent a recurrence of the non-compliance
1. Pipeline was uncovered and repaired 2. Pump is scheduled for repair prior to Unit 2 being placed back into service 3. Pipe conections repaired and upgraded