AGL UPSTREAM INVESTMENTS PTY LTD
ROSALIND PARK GAS PLANT
Air Monitoring Report

Reporting Period: September 2013

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Foreword

PREMISES	Rosalind Park Gas Plant Lot 35 Medhurst Road GILEAD NSW 2560
LICENCE DETAILS	Environment Protection Licence 12003
LICENCEE	AGL Upstream Investments Pty Limited
LICENCEE'S ADDRESS	Locked Bag 1837, North Sydney, NSW 2060
REPORTING PERIOD	01 September to 30 September 2013
REPORT DATE	11 October 2013
REPORT PREPARED BY	Aaron Clifton Environmental Manager

SUMMARY OF ACTIVITY

Rosalind Park Gas Plant, located approximately 60km south west of Sydney, is a natural gas processing and treatment plant, used to process coal seam natural gas from the Camden Gas Project.

Produced natural gas is cleaned, dehydrated, compressed and odourised before being measured and transported by pipeline about 500 metres into the nearby Moomba to Sydney Natural Gas Pipeline. The premises covered by this Environment Protection Licence also includes all gas wells, gas gathering, reticulation systems, trunk lines and associated effluent storage areas and work areas of the Camden Gas Project.

This Monitoring Report relates to those air monitoring activities specified in Part 5, Monitoring and Recording Conditions, of the Environment Protection Licence. The Licence conditions stipulate air monitoring is required to be carried out at the locations, at the frequency and using the test methods as set out in the tables below.

This report sets out the results of continuous monitoring summarized on a monthly basis. A separate report is issued for quarterly monitoring.

This report is prepared in accordance with the *Requirements for Publishing Pollution Monitoring Data* (EPA, March 2012) (**Publication Requirements**).

AIR MONITORING LOCATIONS

Point	Location	Monitoring Frequency
1	Exhaust Stack 1 on Compression Engine 1	Continuous
2	Exhaust Stack 2 on Compression Engine 2	Continuous
3	Exhaust Stack 3 on Compression Engine 3	Continuous

Note: monitoring is only undertaken when the compression engines are running.

AIR MONITORING TEST METHODS

Parameter	NSW EPA Test Method (Sampling Method)	Reference Method
Oxides of Nitrogen	CEM-2	USEPA Performance Specification 2
Temperature	TM-2	USEPA Method 2
Moisture content	TM-22	USEPA Method 4
Volumetric Flow Rate	CEM-6	USEPA Performance Specification 6
Oxygen	CEM-3	USEPA Performance Specification 3

USEPA Method refers to the US Environmental Protection Agency 2000, Code of Federal Regulations, Title 40, Part 60, Appendix A Methods.

USEPA Performance Specification refers to the US Environmental Protection Agency 2000, Code of Federal Regulations, Title 40, Part 60, Appendix B, Performance Specifications.

Air Monitoring Results

Continuous monitoring results are based on test results obtained over a one-hour averaging period as set out in Schedule 5 of the *Protection of the Environment Operations (Clean Air) Regulation* 2010 (NSW).

Monitoring Point	Description	Pollutant	Units of measure	Oxygen correction	Sampling method	Monitoring frequency required by licence	Number of times measured during sampling period	Minimum value	Average value	Maximum value	Concentration limit
1	Compressor Engine 1	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	*Compressor Engine 1 operated from 1-14, 16-18 and 20-30 September. See Note 1.*	239	304	399	461
		Temperature	degrees Celsius		TM-2	Continuous		302	321	338	
		Moisture	percent		See Note 2	Continuous		5.6	7.2	9.8	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		2.6	2.8	3.0	
		Oxygen	percent		CEM-3	Continuous		12.3	12.7	13.2	
2	Compressor Engine 2	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	*The CEMS of Compressor Engine 2 was operating on 5, 6, 14-30 September for 45 minutes of every one hour period. The remaining 15 minute period was down time for cleaning purposes. See Note 3.*	115	147	183	461
		Temperature	degrees Celsius		TM-2	Continuous		400	463	509	
		Moisture	percent		TM-22	Continuous		See Note 3	See Note 3	See Note 3	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		See Note 3	See Note 3	See Note 3	
		Oxygen	percent		CEM-3	Continuous		0.38	0.48	0.60	

3	Compressor Engine 3	Oxides of Nitrogen	milligrams per cubic metre	7% oxygen	CEM-2	Continuous	*The CEMS of Compressor Engine 3 was operating from 1-22 and 25 September for 45 minutes of every one hour period. The remaining 15 minute period was down time for cleaning purposes. See Note 4.*	28	82	231	461
		Temperature	degrees Celsius		TM-2	Continuous		299	430	529	
		Moisture	percent		TM-22	Continuous		See Note 4	See Note 4	See Note 4	
		Volumetric flow rate	cubic metres per second		CEM-6	Continuous		See Note 4	See Note 4	See Note 4	
		Oxygen	percent		CEM-3	Continuous		0.55	0.75	0.96	

Notes:

1. In accordance with Section 3.4.1 of the EPA Publication Requirements, the following data points have not been included for Monitoring Point 1 (Compressor #1 exhaust stack) as AGL knows that the data collected is incorrect. The data is incorrect because the component of the equipment measuring the relevant parameter has either failed or was not operating. AGL has taken and is currently taking actions to rectify the issue (e.g. replacement of failed components of measuring equipment).

Date	Approximate total hours	Pollutant
10.09.2013	2	Oxides of Nitrogen, Moisture
10.09.2013	1	Oxygen
14.09.2013	1	Oxides of Nitrogen, Moisture

2. The test method specified for Moisture (TM-22) refers to manual stack sampling methods. Moisture is measured on a continuous basis with the CEMS manufacturer's Opsis analyser and verified during RATA and on a periodic basis by the stack sampling team by means of TM-22.

   The CEMS for monitoring point 1 is built and tested against a known moisture concentration, and calibrated by reference to TM-22. The CEMS' continuous moisture quality measurement is undertaken based on an equivalent method, being certified according to European standards for continuous emission monitoring.

3. In accordance with Section 3.4.1 of the EPA Publication Requirements, the following data points have not been included for Monitoring Point 2 (Compressor #2 exhaust stack) as AGL knows that the data collected is incorrect. The data is incorrect because the component of the equipment measuring the relevant parameter has either failed or was not operating. AGL has taken and is currently taking actions to rectify the issue (e.g. replacement of failed components of measuring equipment).

Date	Approximate total hours	Pollutant
5,6,14-30.09.2013	463	Volumetric Flow Rate, Moisture

4. In accordance with Section 3.4.1 of the EPA Publication Requirements, the following data points have not been included for Monitoring Point 3 (Compressor #3 exhaust stack) as AGL knows that the data collected is incorrect. The data is incorrect because the component of the equipment measuring the relevant parameter has either failed or was not operating. AGL has taken and is currently taking actions to rectify the issue (e.g. replacement of failed components of measuring equipment).

Date	Approximate total hours	Pollutant
01-22, 25.09.2013	453	Volumetric Flow Rate, Moisture
5,6,7,10.09.2013	12	Oxides of Nitrogen