



**FINAL
COMPLIANCE AUDIT REPORT**

AGL UPSTREAM INVESTMENTS PTY LIMITED

**ROSALIND PARK GAS PLANT
MEDHURST ROAD
GILEAD NSW 2560**

JUNE 2014

This report has been prepared to present the findings of the audit carried out and no responsibility is accepted for its use in any other context, or for any other purpose.

EXECUTIVE SUMMARY

An Environment Protection Authority (EPA) audit was undertaken at the Rosalind Park Gas Plant premises located in Gilead. The premises is operated under Environment Protection Licence (EPL) 12003 issued to AGL Upstream Investments Pty Ltd. The site was audited as part of a review the EPA conducted on the coal seam gas sector in New South Wales focussing on the management of environmental risks associated with these activities. The main objectives of the audit were to assess compliance with the requirements of the EPL relating to environmental risks and to recommend an action program to be implemented by the licensee to address any non-compliance identified during the audit.

Assessment of compliance was undertaken using information collected during a detailed audit inspection, information supplied by the licensee, and a review of records and documentation relating to the premises. The procedures and protocols for conducting compliance audits are detailed in the EPA *Compliance Audit Handbook*. The audit inspection was carried out by officers of the EPA on 17 and 19 July 2013.

The findings of the audit indicate that AGL Upstream Investments Pty Ltd was not complying with some conditions attached to EPL 12003 issued under the Protection of the Environment Operations Act 1997 (POEO Act).

The following non-compliances that were identified within the audit scope, have been dealt with by an Enforceable Undertaking under s.253A of the POEO Act which was approved by the EPA 8 August 2013:

- exceeding oxides of nitrogen (NO_x) emission limits at discharge Points 1 and 2;
- not operating the continuous emissions monitoring equipment on Compressor engine 3 in a proper and efficient manner; and
- not monitoring for all the required pollutants or monitoring air emissions continuously at discharge points 1, 2 and 3.

Other non-compliances identified within the audit scope included:

- not managing the risks of water pollution associated with the storage of oily water in underground storage tanks; and
- not having spill containment measures in place when transferring produced water from tankers to the flare pond.

An action program has been developed to address all identified non-compliances.

A risk assessment is used to colour code non-compliances according to their environmental significance. The action program includes a timeframe for non-compliances to be addressed to ensure the licensee deals with issues raised through the audit process in a timely manner (Table 4.1).

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1.0 INTRODUCTION

An Environment Protection Authority (EPA) audit has been undertaken at the Rosalind Park Gas Plant premises at Gilead (also known as the Camden Gas Project). The premises is operated under environment protection licence 12003 issued to AGL Upstream Investments Pty Ltd. The site was audited as part of a review conducted by the EPA of coal seam gas activities in New South Wales focussing on the management of environmental risks. The audit inspection was undertaken on 17 and 19 of July 2013.

The procedures and processes for conducting EPA Compliance Audits are detailed in the *Compliance Audit Handbook*, which can be accessed on the EPA website at <http://www.environment.nsw.gov.au/resources/licensing/cahandbook0613.pdf>.

1.1 Audit Objective

The objectives of the audit were:

- to determine whether the licensee is complying with environment protection licence requirements in relation to the audit scope and criteria; and
- to determine time frames for follow-up actions to address any non-compliances identified during the audit.

1.2 Scope of the Audit

The scope of the audit is limited to the examination of the activities undertaken by AGL Upstream Investments Pty Ltd at Rosalind Park Gas Plant and associated infrastructure in relation to the management of environmental risks.

The temporal scope adopted for assessment of compliance is:

- the day of the audit inspection for assessing compliance with Operating Conditions; and
- 12 months prior to the end of the audit inspection for assessing compliance with any Monitoring and Limit conditions relating to the audit scope.

1.3 Audit criteria, evidence and findings

Audit criteria (the requirements against which the auditor compares collected audit evidence) are the conditions attached to Environment Protection Licence Number 12003 issued under the POEO Act to AGL Upstream Investments Pty Limited, in relation to environmental risks excluding the conditions that relate to load based licensing and load limits.

Audit criteria may include any document referred to by the licence, or relevant to a particular condition of the licence.

Audit evidence was collected during discussions with site personnel, examination of documentation provided by the licensee and/or contained on EPA files, together with observations made during the audit inspection. The audit included an inspection of the Rosalind Park gas plant and of a number of the gas wells. The monitoring and management practices relating to the gas wells, pipelines and the gas plant were examined as part of the audit.

Findings of non-compliance with licence conditions are summarised in table 2.1. An Action Program provides a time frame for follow-up action necessary to comply with the licence condition concerned.

1.4 Premises and Process Description

The Rosalind Park Gas plant is owned and operated by AGL Upstream Investments Pty Ltd and is located in Gilead, some 65 kilometres south west of Sydney. The licensed premises incorporates the gas plant as well as the associated gas wells, underground gas gathering lines, trunk lines and any associated infrastructure. The operation is also commonly known as the Camden Gas Project and is located in the Wollondilly, Camden and Campbelltown Local Government areas.

There are currently 143 gas wells; 95 are in the production phase, 10 in a 'dewatering' phase, 30 are 'suspended' and 8 are 'plugged and abandoned'.

This operation has produced gas for the Sydney region since 2001. Gas from the wells is transferred via low pressure underground gas gathering pipes to the gas plant. At the gas plant the gas is filtered, stripped of moisture and odourised. The gas is compressed to the pipeline pressure of 4000Kpa and fed into the main gas line.

1.5 Statutory Instruments Issued to the Enterprise

The EPA has issued the following statutory instruments to the enterprise:

Environment Protection Licence number 12003 (EPL) issued under the Protection of the Environment Operations Act 1997.

The scheduled activity undertaken at the premises is *Petroleum and Fuel Production*. The fee scale category is >200 000 - 500 000 T produced.

The anniversary date for the licence is 22 December.

A copy of EPL 12003 can be accessed through the EPA online public register at <http://www.epa.nsw.gov.au/prpoeoapp/>.

1.6 Risk Assessment of Non - Compliances

The significance of any non-compliances identified during the audit process are categorised. Following risk assessment of non-compliances, an escalating response relative to the seriousness of the non-compliance is determined to ensure the non-compliance is addressed by the enterprise.

The risk assessment of non-compliances involves assessment of the non-compliance against two criteria; the likelihood of environmental harm occurring and the level of environmental impact as a result of the non-compliance. After these assessments have been made, information is transferred into the risk analysis matrix below.

Level of Environmental Impact	Likelihood of Environmental Harm Occurring			
		Certain	Likely	Less Likely
	High	Code Red	Code Red	Code Orange
	Moderate	Code Red	Code Orange	Code Yellow
	Low	Code Orange	Code Yellow	Code Yellow

The assessment of the likelihood of environmental harm occurring and the level of environmental impact allows for the risk assessment of the non-compliance via a colour coding system. A red risk assessment for non-compliance denotes that the non-compliance is of considerable environmental significance and therefore must be dealt with as a matter of priority. An orange risk assessment for non-compliance is still a significant risk of harm to the environment however can be given a lower priority than a red risk assessment. A yellow risk assessment for non-compliance indicates that the non-compliance could receive a lower priority but must be addressed.

There are also a number of licence conditions that do not have a direct environmental significance, but are still important to the integrity of the regulatory system. These conditions relate to administrative, monitoring and reporting requirements. Non-compliance with these conditions is given a blue colour code.

The colour code is used as the basis for deciding on the priority of remedial action required by the licensee and the timeframe within which the non-compliance needs to be addressed. This information is presented in the action program alongside the target/action date for the non-compliance to be addressed.

While the risk assessment of non-compliances is used to prioritise actions to be taken, the EPA considers all non-compliances are important and licensees must ensure that all non-compliances are addressed as soon as possible.

2.0 ASSESSMENT OF COMPLIANCE

2.1 Compliance with Audit Criteria

Compliance was assessed against the licensing requirements of the POEO Act, and the requirements of EPL 12003 relating to the audit scope and criteria.

Assessment of compliance was undertaken by a detailed site inspection and review of all records and documentation relating to the audit scope and criteria as required by the EPL issued to the licensee.

The findings of the audit indicate that some of the conditions of the EPL, relating to the audit scope were not being complied with.

Details of assessment are presented in Table 2.1.

Table 2.1 Assessment of Compliance with Environment Protection Licence No. 12003

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
1	Administrative Conditions <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the audit inspection.</i>		
A1.1	Yes	<u>Scale of activity</u>	
A2.1, A2.2 and A2.3	Statements	Conditions A2.1 - A2.3 are statements describing the premises that the licence applies to and that it includes the associated gas gathering reticulation system. No assessment of compliance is required.	
A2.4	Yes		
A2.5	Statement	This is a statement indicating the location of the boundaries of the premises which includes the well sites. No assessment of compliance is required.	
A3.1	Beyond the scope	The proposal contained within the licence application was received in 2000 and as such it was beyond the 12 month scope of the audit to assess whether works and activities are carried out in accordance with the proposal contained in the licence application.	
2	Discharges to Air and Water and Applications to Land		
P1.1 and P1.2	Statements	These are statements indicating that the points referred to in the tables are identified for the purposes of monitoring and/or setting limits of pollutants discharged from the points. No assessment of compliance is required.	
3	Limit Conditions <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the audit inspection.</i>		
L1.1	Yes	<u>Pollution of waters – Surface water</u> On the day of the audit there was no evidence observed to indicate that pollution of surface waters was occurring.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
	Not determined	<u>Pollution of waters – Groundwater</u> It was not determined if the licensee was complying with section 120 of the POEO Act. No samples of groundwater were collected by the EPA at the time of the inspection. In May 2013 the licence was amended to require the licensee to undertake groundwater monitoring at quarterly intervals. The licensee is required to monitor the quality of water from 8 operating gas production wells. The licensee has also recently installed a set of nested groundwater monitoring bores within the Camden gas field for the purpose of monitoring groundwater quality. It is also noted that the licensee has a number of management practices in place to protect groundwater resources. These include designing and constructing gas wells with multiple casings and monitoring the integrity of the gas wells to help ensure that groundwater resources are protected.	The licensee must ensure that there is no pollution of groundwater as a result of the activities undertaken at the site.
L2.2	Beyond the scope	The scope of the audit related to assessing how AGL manages its environmental risk associated with their activities at Rosalind Park and associated infrastructure and as such the assessment of the LBL fee calculation requirements was beyond the scope of the audit.	
L3	Concentration limits		
L3.1 and L3.4	Concentration of pollutants discharged must not exceed the limits specified in the table		
	Point 1		
	No CODE YELLOW	<u>Nitrogen oxides</u> The licensee did not comply with the concentration limits specified for Nitrogen Oxides (NOx) at Point 1 in November and December 2012. The concentration of Nitrogen Oxides (NOx) discharged exceeded the limit of 461 mg/m ³ . The licensee reported in their monthly monitoring summary report for November 2012 that the maximum value of NOx discharged was 605mg/m ³ . The licensee reported that the	The licensee must comply with the concentration limits specified for pollutants discharged from Point 1.

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
L3.1 and L3.4 cont.		<p>exceedances were as a result of the compressor engine running 'rich' and advised that the problem was rectified once identified. In a letter to the EPA dated 29 January 2013, the licensee reported that the total duration of the exceedances for NOx during November 2012 at Point 1 was 169 hours.</p> <p>The licensee reported in their monthly monitoring summary report for December 2012 that the maximum concentration level of NOx discharged during December was 578mg/m³. The licensee reported that these exceedances were caused by the compressor engine running 'rich' and the problem was rectified once identified. The licensee also reported in the monitoring summary report for December 2012 that the time period over which the concentration limit was exceeded was 9 hours on 4 December and 9 hours on 5 December.</p> <p>It is noted that the licensee advised the EPA of the exceedances in December 2012. In response to the non-compliance the EPA issued a Penalty Notice.</p>	
	Yes	<p><u>Sulfuric acid mist and sulfur trioxide (as SO₃)</u></p> <p><u>Sulphur dioxide</u></p>	
	<p>Point 2</p> <p>No</p> <p>CODE YELLOW</p>	<p><u>Nitrogen oxides</u></p> <p>The licensee did not comply with the concentration limits specified for Point 2 in September and November 2012. The concentration of Nitrogen Oxides (NOx) discharged exceeded the limit of 461 mg/m³.</p> <p>Based on monitoring data from September 2012, the maximum value of NOx emitted during the month was 587mg/m³. The licensee reported in their monthly monitoring summary report for September that the hourly average concentration limit was exceeded on 12 occasions between 5 and 12 September. In a letter to the EPA dated 29 January 2013, the licensee advised that the compressor was shut down on 12 September when the exceedances were identified and a full service of the equipment was performed.</p>	The licensee must comply with the concentration limits specified for pollutants discharged from Point 2.

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
L3.1 and L3.4 cont.		Based on monitoring data from November 2012, the maximum value of NOx discharged for the month was 896mg/m ³ . The licensee reported in their monthly monitoring summary report for November that the limit was exceeded for short periods on 7, 8 and 9 November. The licensee attributed the exceedances to fouling of the catalyst cell which was subsequently rejuvenated. It is noted that the licensee advised the EPA of the exceedances in December 2012. In response to the non-compliance the EPA issued a Penalty Notice. There have not been any exceedances reported by the licensee since that time.	
	Yes	<u>Sulfuric acid mist and sulfur trioxide (as SO₃)</u> <u>Sulphur dioxide</u>	
	Point 3		
	Yes	<u>Nitrogen oxides</u> <u>Sulfuric acid mist and sulfur trioxide (as SO₃)</u> <u>Sulphur dioxide</u>	
	Point 4		
	Yes	<u>Nitrogen oxides</u> <u>Sulfuric acid mist and sulfur trioxide (as SO₃)</u> <u>Sulphur dioxide</u>	
	Point 5		
	Yes	<u>Nitrogen oxides</u> <u>Sulfuric acid mist and sulfur trioxide (as SO₃)</u> <u>Sulphur dioxide</u>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
L3.2	Not applicable	The requirements for this condition do not apply as a pH range is not specified. No assessment of compliance is required.	
L3.3	Statement	This is a statement advising that condition L3.3 does not authorise the pollution of waters by any pollutant other than those specified in the table. No assessment of compliance is required.	
L3.5	Not applicable	The requirements of this condition do not apply as the licensee has not sought to revise the concentration limits specified in L3.1 for nitrogen oxides.	
L4	Waste		
L4.1	Yes	<u>Causing, permitting or allowing waste, that is not expressly permitted by the condition, to be received at the premises</u>	
L4.2	Not applicable	<u>Asbestos</u> The requirements of this condition did not apply at the time of the audit inspection. The site representative advised that there is no asbestos on the premises and the auditor did not observe any asbestos waste at the premise. The EPA has no reason to suspect that the licensee has asbestos on the premises.	
L5	Noise Limits		
L5.1	Yes	<u>Day/ evening/ night/ flare limits</u> Based on the noise monitoring data provided by the licensee the noise levels detected at the nominated receivers have not exceeded the limits defined in the condition.	
L5.2	Statement	This is a statement that defines “day”, “evening” and “receiver locations” for the purpose of the noise limits specified in Condition L5.1. No assessment of compliance is required.	
L5.4	Not determined	<u>Noise from flaring events</u> The licensee advised that there has been no noise monitoring measurements undertaken	The licensee must ensure that noise from flaring

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		during flare events in the 12 months prior to the audit inspection. It is noted that the licensee also advised that flare events have been minimal in the past 12 months and when they did occur they were of a short duration.	events does not exceed the specified noise limits.
L5.5	Noise measurements		
L5.6- L5.8	Statements	These are statements providing details of the locations where noise measurements are to be taken for the purpose of determining compliance with the noise limits specified in Condition L5.1 and the circumstances under which the EPA may accept an alternative method to determine compliance with the noise limits set in L5.1 and L5.4. No assessment of compliance is required.	
L5.9	Well, gathering system and trunk line maintenance noise management protocol		
L5.10	Yes	The licensee has a noise management plan titled " <i>Camden Gas Project- Noise management plan</i> " (Aug 2008) in place that includes the Well, Gathering and Trunk Line Maintenance Protocol that satisfies the requirements of this condition.	
L5.11 a) and b)	Yes	<u>Planned maintenance activities - hours of operation</u>	
L6	Hours of operation		
L6.1 a) and b)	Yes	<u>Planned maintenance activities - hours of operation</u>	
L6.2	Statement	This is a statement advising of the circumstances under which the restrictions on the hours of operation do not apply. No assessment of compliance is required.	
L7	Potentially offensive odour		
L7.1	Statement	This is a statement advising the licensee of the requirements of the POEO Act in relation to the emission of offensive odours. The note restates the requirements of the Act, and that the licensee must not cause or permit the emission of any offensive odour from the premises. The licence does not provide any defence for any contravention of the POEO Act in relation to the emission of offensive odours. No assessment of compliance is required.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
L8	Other limit conditions		
L8.1	Not applicable	<u>Polychlorinated Biphenyls (PCBs)</u> The requirements of this condition did not apply at the time of the audit inspection. The site representative advised that there are no wastes or materials containing PCB's on the premises. The EPA has no reason to believe that the licensee has any wastes or materials on the premises that contain PCB's on the premises.	
L8.2	Hydraulic Fracturing		
L8.3	Not applicable	<u>Hydraulic fracturing - fracturing fluid additives</u> This requirement is not applicable as no fracturing additives were kept on site at the time of the audit inspection. The licensee advised that no hydraulic fracture of coal seam gas wells has been undertaken since 2009.	
O	OPERATING CONDITIONS <i>The audit assessment is based upon evidence relating to the period limited to 24 hours prior to the end of the audit inspection.</i>		
O1	Activities must be carried out in a competent manner		
O1.1	Managing environmental risks associated with air pollution		
	Yes	The licensee was managing environmental risks associated with air pollution in a competent manner at the time of the audit inspection. <u>Managing air pollution from point sources</u> <ul style="list-style-type: none"> • Compressors • Toluene Ethylene Glycol (TEG) unit • Odouriser • Flare • Wells 	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O1.1 cont.	Yes	<u>Managing air pollution from fugitive sources</u> <ul style="list-style-type: none"> Plant Wells 	
	Managing environmental risks associated with water pollution		
	Yes	<p>The licensee was managing the risks associated with water pollution in a competent manner with respect to the following activities;</p> <ul style="list-style-type: none"> Chemical storage and handling at the gas plant Produced water management at the well sites Drilling fluid management Surface water management at well sites and at the gas plant 	
	No CODE YELLOW	<u>Storage of oily wastewater in underground tanks</u> <p>The licensee was not managing the risks of water pollution associated with the storage of oily wastewater in underground storage tanks in a competent manner.</p> <p>Oily water captured in containment structures at the gas plant is transferred to, and stored in, a 65,000L underground concrete tank.</p> <p>The oily water in this tank is pumped to a small waste water treatment system operated by AGL at the gas plant to remove hydrocarbons. The treated waste water is then transferred to the flare pond via a 15,000L underground concrete storage tank. Surface oil from the top of the 15,000L tank is removed monthly by an oil recycling company.</p> <p>The licensee has advised that the concrete tanks are de-sludged as part of routine maintenance. The licensee also advised that tank management was undertaken by trained personnel, including transfer of waste water and oils between tanks, the treatment system and the flare pond, and regular daily visual inspections of tank levels are undertaken.</p>	<p>The licensee must ensure that the storage of oily water in underground tanks is managed to reduce the risk of water pollution.</p>

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O1.1 cont.		<p>The EPA is concerned that the monitoring of tank integrity is not adequate, increasing the likelihood of a leak going undetected, increasing the likelihood of groundwater pollution.</p> <p>In response to the draft audit report the licensee has advised that they are reviewing procedures to monitor the integrity of the underground storage tanks.</p>	
	<p>No</p> <p>CODE YELLOW</p>	<p><u>Transfer of produced water from tankers to the flare pond</u></p> <p>The licensee was not managing the risks of water pollution associated with the transfer of produced water from tankers to the flare pond at the gas plant in a competent manner at the time of the audit inspection.</p> <p>Road tankers transfer 'produced water' drawn from gas wells to the flare pond. The transfer occurs on a compacted gravel area just outside the area of the flare pond by trained operators. The transfer of highly saline produced water occurs on a daily basis with no secondary spill containment measures in place to collect leaks or spills that may occur during transfer.</p> <p>It is noted that AGL has commenced a review of the current process for the transfer of produced water to the flare pond and associated containment and is developing a corrective action plan.</p> <p>The EPA is concerned that the lack of containment increases the likelihood of water pollution in the event of a spill or leak occurring during the transfer process.</p>	<p>The licensee must ensure that the transfer of produced water from tankers to the flare pond is managed to reduce the risk of water pollution. .</p>
O2	Maintenance of plant and equipment		
O2.1a	Plant and equipment must be maintained in a proper and efficient condition		
	Yes	<p><u>Maintenance of plant and equipment used in connection with managing air pollution</u></p> <p>Plant and equipment used in connection with managing air pollution was being maintained in a proper and efficient condition at the time of the audit inspection.</p> <ul style="list-style-type: none"> Plant Wells 	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
	Yes	<u>Maintenance of plant and equipment used in connection with managing water pollution</u> Plant and equipment used in connection with managing water pollution was being maintained in a proper and efficient condition at the time of the audit inspection. <ul style="list-style-type: none"> • Plant • Wells 	
O2.1b	Plant and equipment must be operated in a proper and efficient manner		
	Operation of plant and equipment used in connection with air pollution		
	No CODE YELLOW	<u>Continuous Emission Monitoring System (CEMS) on Compressor engine 3 (Point 3)</u> The CEMS on Compressor engine 3 was not being operated in a proper and efficient manner on the days of the audit inspection. The licensee is required to monitor continuously for oxides of Nitrogen (NOx), temperature, moisture, volumetric flow rate and oxygen at Point 3. The licensee was not monitoring volumetric flow rate and moisture at point 3. The licensee has also reported in their monthly Air Monitoring Report for July 2013 that the CEMS is only operating for 45 mins of every hour, which is a 75% data capture rate. It is recommended that continuous monitoring should have at least a 90% data capture rate. The licensee informed the EPA in July 2012 that they had not undertaken continuous monitoring since October 2009 due to technical and mechanical failures of the CEMS at Points 1, 2 and 3. Since that time the licensee has recommenced continuous monitoring but is unable to obtain data for moisture and volumetric flow. The licensee has installed a new CEMS at Point 1 which was commissioned in March 2013 and the licensee is working on alternatives to the CEMS at Point 2 and 3. The EPA has examined the circumstances of the licensees' failure to monitor in accordance with the licence and has taken regulatory action. The licensee entered into an Enforceable Undertaking with the EPA on 8 August 2013 which includes undertakings	The licensee must operate plant and equipment in a proper and efficient manner. The licensee must comply with the requirements set out in the 'Enforceable undertaking' dated 8 August 2013.

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O2.1b cont.		regarding monitoring at Point 3.	
	Not applicable	<u>Continuous Emission Monitoring System (CEMS) on Compressor engine 2 (Point 2)</u> Compressor engine 2 was not operating on the days of the audit inspection (17 and 19 July). However, when the compressor is in operation, the CEMS on Compressor engine 2 (Point 2) is operated in the same manner as the CEMS on Compressor engine 3. As both CEMS are operated in the same manner, when Compressor engine 2 is in operation, the CEMS would also not be considered to be operated in a proper and efficient manner. The licensee entered into an Enforceable Undertaking with the EPA on 8 August 2013 which includes undertakings regarding monitoring at Point 2.	
	Yes	At the time of the audit inspection the licensee was found to be operating the following equipment in a proper and efficient manner in relation to air emissions: <ul style="list-style-type: none"> • Compressor engine 1; • CEMS on Compressor engine 1; • Compressor engine 3; • Toluene Ethylene Glycol (TEG) unit; • Odouriser; and • equipment at the observed wells. 	
	Operation of plant and equipment used in connection with water pollution		
	Yes	<u>Plant and equipment used in connection with managing water pollution</u> was being operated in a proper and efficient condition at the time of the audit inspection. <ul style="list-style-type: none"> • Plant • Wells 	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O3	Dust		
O3.1	Yes		
O4	Emergency Response		
O4.1	Yes		
O5	Processes and management		
O5.1	Yes	<u>Liquid and/or non-liquid waste generated and/or stored at the premises is assessed and classified in accordance with DECC Waste Classification Guidelines</u>	
O5.2	Yes	<u>Waste identified for recycling is stored separately from other waste</u>	
5 MONITORING AND RECORDING CONDITIONS			
M1	Monitoring records		
M1.1	See assessment of compliance with M1.2 and M1.3 below.		
M1.2(a)	Yes	<u>Groundwater and air monitoring</u>	
M1.2(b)	Beyond the scope	It is beyond the scope of the audit to determine whether the licensee will keep records for a period of at least four years. The licensee advised that all monitoring records are kept for more than 4 years and the EPA has no reason to believe that the licensee will not keep records for a period of 4 years.	
M1.2 (c)	Yes	<u>Groundwater and air monitoring</u>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
M1.3 (a), (b) and (c)	Yes	<u>Groundwater and air monitoring</u>	
M1.3 (d)	Yes	<u>Groundwater monitoring</u>	
	No CODE BLUE	<u>Air monitoring</u> Although the licensee keeps records of samples required to be collected for the purpose of the EPL, the records do not include the name of the person who collected the sample. For quarterly stack monitoring, there is no record of the persons who collected the samples for the March and June 2013 reports. Only the initials of people who collected the samples are recorded for the September and December 2012 emission testing reports. Records were kept in respect of samples required to be collected by the licence which showed the date, time and point at which samples were taken.	The licensee must keep records in respect of samples required to be collected by the licence which show the name of the person who collected the sample.
M2	Requirement to monitor concentration of pollutants discharged		
M2.1 and M2.2	Air monitoring requirements - Quarterly monitoring at points 1, 2, 3, 4, 5 and 6		
	Yes	<u>Pollutants monitored</u>	
	No CODE BLUE	<u>Sampling method</u> <u>Sulphur dioxide</u> The licensee has not monitored the concentration of sulphur dioxide at points 1, 2, 3, 4 and 5 using the sampling method specified in the licence. The method specified in the licence for monitoring sulphur dioxide is TM-4. The licensee engaged two different consultants to undertake sampling and both consultants have used method TM-3. The consultant who carried out sampling in March and June 2013 has reported that this method allows for the concurrent sampling of SO ₃ and that it is principally the same except that it is conducted isokinetically and uses larger impingers.	The licensee must use the sampling method specified in the licence condition for all pollutants. In exceptional circumstances, the EPA may approve the use of an alternative method. To obtain approval to use an alternative method the licensee must apply in writing to the EPA - see

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<u>Dry gas density and the molecular weight of stack gases</u> The licensee has not monitored the dry gas density and the molecular weight of stack gases at points 1, 2, 3, 4, 5 and 6 using the sampling method specified in the licence. The method specified in the licence for monitoring these 'pollutants' is TM-23 (USEPA 3). The licensee has engaged two different consultants to undertake sampling and both consultants have used methods TM-24 and TM-25 (USEPA 3A). The consultants advised that it is standard practice to use these methods and that they are an improvement on method TM-23.	details on p.1 of the Approved Methods http://www.epa.nsw.gov.au/air/appmethods.htm .
	Yes	<u>Units of measure</u>	
	Yes	<u>Sampling frequency</u>	
M2.3	Continuous air monitoring at Points 1, 2 and 3.		
	No CODE BLUE	<u>Pollutants monitored</u> The licensee did not monitor the pollutants specified for Points 1, 2 and 3 at the required frequency. The licensee is required to monitor continuously oxides of Nitrogen, temperature, moisture, volumetric flow rate and oxygen. <u>Point 1.</u> From July 2012 to March 2013 inclusive, the licensee did not monitor moisture and volumetric flow rate at Point 1. There are also a number of hours during this period where other 'pollutants' were not monitored notably temperature and O ₂ for 276 hours in July 2012; NO _x and O ₂ for 143 hours in October 2012 and temperature for 141 hours; NO _x for 118 hours in November 2012, temperature for 116 hours and O ₂ for 117 hours. It is noted that the licensee has installed a new CEMS at Point 1 which was commissioned in March 2013.	Point 1: The licensee must monitor the pollutants specified in the licence condition. Points 2 and 3: The

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
M2.3 cont.		<p><u>Point 2.</u> The licensee has not monitored moisture and volumetric flow rate at Point 2 during the period audited. There are also other instances during this period where other 'pollutants' have not been monitored, notably NO_x and O₂ for 453 hours in July 2012.</p> <p><u>Point 3.</u> The licensee has not monitored moisture and volumetric flow rate at Point 3 during the period audited.</p> <p>It is noted that the licensee is working on alternatives to the CEMS at Points 2 and 3.</p>	licensee must comply with the requirements set out in the 'Enforceable undertaking' dated 8 August 2013.
	No CODE BLUE	<p><u>Sampling method</u></p> <p><u>Point 1.</u></p> <p>The licensee has not used the sampling method specified for Point 1 during the period audited.</p> <p>Moisture is required to be monitored using test method TM-22. For the month of June and July 2013, the consultant engaged by the licensee has not used TM-22 but has used an in-house method. The consultant has stated that TM-22 is used for manual stack sampling and that moisture is measured continuously using an analyser and verified during the Relative Accuracy Test Audit (RATA) and periodically by means of TM-22. The CEMS is also calibrated by reference to TM-22. It is noted that the EPA varied the EPL by amending this condition on 22 October 2013 to reflect this method of monitoring moisture.</p> <p>The consultant engaged by the licensee did not use the specified methods for monitoring NO_x, O₂, temperature and volumetric flow rate. The consultant has used in-house methods and has reported that they are equivalent to the methods required by this condition. Prior to June, the licensee has prepared their own summary reports based on the raw data and have listed the methods specified in the licence as the methods used.</p>	The licensee must use the sampling method specified in the licence condition for all pollutants. In exceptional circumstances, the EPA may approve the use of an alternative method. To obtain approval to use an alternative method the licensee must apply in writing to the EPA - see details on p.1 of the Approved Methods http://www.epa.nsw.gov.au/air/appmethods.htm .
	Yes	<p><u>Point 2 & 3.</u></p> <p>The licensee has prepared their own summary reports for Points 2 and 3 based on the raw data and have listed the methods specified in the licence as the methods used. Note that</p>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		moisture and volumetric flow rate have not been measured.	
	Yes	<u>Units of measure</u>	
	No CODE BLUE	<u>Sampling frequency</u> The licensee has not monitored all pollutants at Point 1, 2 and 3 at the required frequency. See comments above under pollutants monitored.	The licensee must sample at the frequency specified in the licence condition.
M2.4	No CODE BLUE	<u>Test Method 1</u> The licensee has not on all occasions selected sampling positions for quarterly monitoring undertaken at Points 1, 4 and 5 in accordance with test method TM-1 during the period audited. <u>Point 1:</u> On 11 September 2012, the stack duct did not have the required number of access holes, the number of traverses sampled was less than required and the number of points sampled was less than required. It is noted that during the other three sampling events (December, March and June 2013) the selection of sampling positions was carried out in accordance with TM-1. <u>Point 4:</u> On 11 September 2012, 6 December 2012 and 28 March 2013, the stack duct did not have the required number of access holes, the number of traverses sampled was less than required and the number of points sampled was less than required. On 28 March 2013, the sampling plane also did not meet the criteria that gas velocity be more than 3m/sec. It is noted that during the last sampling event (June 2013) the selection of sampling positions was carried out in accordance with TM-1.	The licensee must select sampling positions for quarterly monitoring at points 1, 4 and 5 in accordance with TM-1.

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<p><u>Point 5:</u> On all occasions the gas velocity at the sampling plane did not meet the criteria that gas velocity be more than 3m/sec.</p> <p>The EPA has taken regulatory action regarding this issue and it formed part of the Enforceable Undertaking dated 8 August 2013. It is noted that the EPA varied the EPL on 22 October 2013 to require the licensee to comply with the requirements of TM-1 at Point 5 with the exception of velocity.</p> <p>It is noted that the selection of sampling positions for quarterly monitoring at Points 2, 3 and 6 has been carried out in accordance with test method TM-1 at all sampling times.</p>	
M2.5	Groundwater Monitoring, Points 8-15		
	Not applicable	<p><u>Points 8 -14</u></p> <p>The monitoring requirements for points 8 - 14 did not apply within the audited period as the licensee could not obtain satisfactory samples suitable for analysis.</p> <p>A sample was not obtained from Point 8 as the licensee advised that the well was "recirculating water".</p> <p>A sample from point 9 was not analysed as the licensee advised that high suspended solids prevented the monitoring of other parameters.</p> <p>Points 10, 11, 12, 13 and 14 were not sampled as the wells were 'dry' and not producing any water.</p>	
	No CODE BLUE	<p><u>Pollutants monitored - Point 15</u></p> <p>The licensee monitored all the required pollutants at Point 15 with the exception of Bromide. Monitoring data obtained indicates that <i>Bromine</i> was monitored instead of <i>Bromide</i>.</p>	The licensee must monitor for the pollutant <i>bromide</i> .
	Yes	<u>Sampling method - Point 15</u>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
	Yes	<u>Units of measure - Point 15</u>	
	Yes	<u>Sampling frequency - Point 15</u>	
M2.6	Beyond the scope	It is beyond the scope of the audit to assess compliance with the requirements of this condition as this condition was placed on the licence on 13 May 2013. The first annual report is required to be submitted in January 2014 which is outside the audited period.	
M3	Testing methods- concentration limits		
M3.1	No CODE BLUE	<u>Test methods – air pollutants</u> Monitoring for the concentration of pollutants emitted to air required to be conducted by this licence has not been done in accordance with the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in NSW</i> (the Approved Methods) as required under the Protection of the Environment Operations (Clean Air) Regulation 2010. <u>Sampling methods</u> The sampling methods specified in the Approved Methods are the methods specified in the licence conditions. See compliance with conditions M2.1 – 2.4. <u>Accreditation</u> The Approved Methods state that analyses should be carried out by a laboratory accredited to perform them by an independent accreditation body such as NATA. <i>Continuous monitoring.</i> The laboratory used by the licensee is not accredited to use the methods to determine the ‘pollutants’ of moisture and velocity. The laboratory is accredited for the methods used to determine the concentrations of NO _x , O ₂ and temperature. Note that the methods used are in-house methods and are not the methods specified in the	The licensee must monitor in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (the Approved Methods) as required under the Protection of the Environment Operations (Clean Air) Regulation 2010.

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<p>licence. It is noted that the EPA varied the EPL on 22 October 2013 to reflect the method used for monitoring moisture.</p> <p><u>Analytical report</u></p> <p>The Approved Methods state that the results of any monitoring must be provided as a summary report and must contain at least the information that is listed on p.10 of the Approved Methods. The licensee provided quarterly emission testing reports to the EPA as part of the audit however these reports did not contain the following information: 'details of source or process operating conditions during sampling', 'the precision of the results using AS2706 as a guide' and 'details of the most recent calibration of each instrument used to take measurements'.</p>	
M3.2	<p>No</p> <p>CODE BLUE</p>	<p><u>Test methods – water pollutants</u></p> <p><u>Test methods used</u></p> <p>The licensee did not use the EPA Approved Methods for the analysis of water pollutants outlined in the document "<i>Approved Methods for the sampling and Analysis of water pollutants in NSW</i>".</p> <p>The Certificate of Laboratory Analysis provided by the consultant indicates that NATA accredited '<i>in house</i>' methods were used that have been '<i>developed from</i>' approved methods. It is considered that these methods do not exactly match the methods stated in the approved methods document.</p> <p>It is noted, however, that the requirement to use the approved methods for carbonate, silica, strontium and uranium do not apply as there are no approved methods stated in the document for the monitoring of those pollutants.</p>	<p>The licensee must use the sampling method specified in the EPA Approved Methods Publication,</p> <p>or</p> <p>The licensee must apply in writing to the EPA for approval to use an alternative method.</p>
	Not applicable	<p><u>Accreditation of laboratory</u></p> <p>The Approved Methods document states that analyses should be undertaken by a laboratory accredited to perform those analyses by an independent accreditation body such as NATA. The laboratory used by the licensee is accredited by NATA for the use of</p>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		method <i>USEPA 3005</i> which is an analysis method that is approved in the ' <i>Approved methods publication</i> ' for the analysis of many of the pollutants that are required to be monitored. It is noted however that the laboratory did not use this method when undertaking the analysis of those pollutants and instead used NATA accredited alternative methods.	
M4	Beyond the scope	<u>Testing methods – load limits</u> It is beyond the scope of the audit to assess compliance with the load based licensing requirements.	
M5	Recording of pollution complaints		
M5.1	Yes	<u>Legible records</u> The licensee had a legible record of one complaint that was received at the premises in the 12 months prior to the audit inspection.	
M5.2 (a) and (c)	No CODE BLUE	<u>Date and time</u> The record of complaint included the date that the complaint was made however the record did not include the time the complaint was made. <u>Personal details</u> The record of complaint did not include the personal details of the complainant. The record refers to a 'Glen Alpine resident' however other personal details are not provided. If no such details were provided then AGL is required to make a note to that effect.	All records of complaint must include the time that each complaint was made and the personal details of the complainant. If no such details are provided then a note must be made to that effect.
M5.2(b), (d) and (e)	Yes	<u>Method of complaint, nature of complaint and action taken</u>	
M5.2 (f)	Not applicable	<u>If no action taken</u> The requirement to record details if no action was taken did not apply as the licensee did take action as a result of the complaint.	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
M5.3	Beyond the scope	It is beyond the scope of the audit to determine whether the licensee will keep records of complaint for a period of at least four years. It is noted that licensee provided records of complaint dated from as far back as 2007 and the EPA has no reason to believe that the licensee will not keep records for a period of 4 years.	
M5.4	Yes	<u>Producing records to an authorised officer on request.</u>	
M6	Telephone complaints line		
M6.1	Yes	<u>Operating a telephone complaints line for receiving complaints</u> The licensee does operate during its operating hours a telephone complaints line that can be used for the purpose of receiving complaints from members of the public.	
M6.2	Yes	<u>Advertising the telephone complaints line to the public</u>	
M6.3	This is a deeming clause that determines the applicability of conditions M6.1 and M6.2 and no assessment of compliance is required. It is noted that M6.1 and M6.2 do apply as the licence was issued more than 3 months ago.		
M7	Other monitoring and recording conditions		
M7.1	Leak detection and repair program		
M7.2	Yes	<u>Operation of a Leak Detection and Repair Program (LDAR) Program for all relevant components of plant and equipment</u>	
M7.3	Yes	<u>Operation of the LDAR Program to monitor in accordance with US EPA Method 21</u>	
REPORTING CONDITIONS			
R1	Annual return documents		

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
R1.1	Yes		
R1.2	Yes		
R1.3- R1.4	Not applicable	The requirements of this condition do not apply as the licence has not been transferred or surrendered.	
R1.5	No CODE BLUE	The licensee submitted the Annual Return later than 60 days after the end of the reporting period. The Annual Return for the period 22 December 2011 to 21 December 2012 was supplied to the EPA on 25 February 2013 (7 days after the 'due date'). It is noted that AGL advised the EPA prior to the submission that it would be late as they were still verifying some of the information to be submitted and that this non-compliance was reported in their Annual Return.	The licensee must submit the Annual Return no later than 60 days after the end of each reporting period.
R1.6	Not applicable	The requirement of this condition did not apply as the Annual Return was not submitted late due to the inability to calculate the actual load of a pollutant due to circumstances beyond the licensees' control.	
R1.7	Yes		
R1.8	Yes		
R1.9	Statement	This is a statement advising the licensee who can certify a certificate of compliance.	
R1.10	Noise compliance monitoring report		
	Yes	<u>Report to be submitted with the Annual Return</u>	
	Yes	<u>Report to assess compliance with noise limits</u>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
R1.10 cont.	No CODE BLUE	<p>Noise monitoring to be undertaken in accordance with the NSW Industrial Noise Policy (Aug 2000)</p> <p>The licensee undertakes noise monitoring at quarterly intervals to determine compliance with the noise limits specified in the licence. The quarterly and annual noise compliance monitoring reports submitted to the EPA do not comply with the NSW Industrial Noise policy in the following areas.</p> <ul style="list-style-type: none"> Section 11.1.2 of the policy states that 'sky cloud cover' must be recorded when conducting the noise measurements. These details were not provided in the reports. Section 11.1.4 states that the weather instrumentation used must be recorded. These details were not provided in the reports. <p>It is noted that meteorological conditions have been recorded (i.e. 'low wind speeds and no rain') however there is no record of the instrumentation used, if any, to determine these conditions.</p>	The licensee must undertake noise monitoring in accordance with the NSW Industrial Noise Policy August 2000.
R2	Notification of environmental harm		
R2.1 and R2.2	Not applicable	<p><u>Notification of Environmental harm</u></p> <p>The requirements of these conditions do not apply as there have been no incidents that have occurred in the past 12 months that have caused or threatened material harm to the environment.</p>	
R3	Written report		
R3.1 and R3.3	Statements	These are statements advising the licensee that the EPA may request a written report in relation to any suspected events that have occurred that may cause or are likely to cause	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		material harm to the environment. It is noted that the EPA requested a written report from the licensee on 13 August 2012 regarding not undertaking continuous emissions monitoring. AGL provided a written response on 4 September 2012.	
R3.2	Yes	The licensee made all reasonable enquiries in relation to the event and supplied the EPA with a written report within the required time.	
R3.4	Not applicable	The requirements of this condition do not apply as the EPA did not request further details.	
R4	Other reporting conditions		
R4.2	Beyond the scope	<u>Leak detection and repair program summary report</u> It is beyond the scope of the audit to assess compliance with this condition as the condition was placed on the licence on 13 May 2013 and the first summary report is due to be submitted with the next Annual Return which is due in February 2014.	
R4.4	Beyond the scope	<u>Groundwater monitoring report</u> It is beyond the scope of the audit to assess compliance with this condition as the condition was placed on the licence on 13 May 2013 and the first Groundwater monitoring report is due to be submitted with the next Annual Return which is due in February 2014.	
R4.6	Beyond the scope	<u>Spatial information</u> It is beyond the scope of the audit to assess compliance with this condition as the condition was placed on the licence on 13 May 2013 and the updated spatial information is due to be submitted with the next Annual Return which is due in February 2014.	
G1	Copy of licence kept at the premises		
G1.1	Yes	<u>Copy kept at the premises</u>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 12003			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
G1.2	Yes	<u>Copy produced to an authorised officer</u>	
G1.3	Yes	<u>Copy available for inspection by employees</u>	
G2	Signage		
G2.1	Yes	<u>Location of EPA points 1- 7 to be marked with signs</u>	

* See explanation of risk assessment of non-compliances codes on p3.

3.0 FURTHER OBSERVATIONS

Further observations are recorded where the audit identified issues of environmental concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where environmental performance may be improved.

There were no further observations made.

4.0 ACTION PROGRAM

The following action program must be undertaken in relation to the Rosalind Park Gas Plant.

Table 4.1 Action Program – Environment Protection Licence No. 12003

Condition No.	Action Details	Non-Compliance Code	Target/Action Date
L3.1	The licensee must comply with the concentration limits specified for pollutants discharged from Point 1 for NOx emissions.	Code Yellow	Immediately/ Ongoing
	The licensee must comply with the concentration limits specified for pollutants discharged from Point 2 for NOx emissions.	Code Yellow	Immediately/ Ongoing
O1.1	The licensee must ensure that the storage of oily water in underground tanks is managed to reduce the risk of water pollution. <u>Update:</u> The licensee advised on 25 March 2014 that the process of monitoring the tanks has been reviewed and a corrective action plan has been developed with controls being progressively implemented.	Code Yellow	Licensee to report on compliance by 30 June 2014.
	The licensee must ensure that the transfer of produced water from tankers to the flare pond is managed to reduce the risk of water pollution. <u>Update:</u> The licensee advised on 25 March 2014 that the process of transferring produced water has been reviewed and a corrective action plan has been developed with controls being progressively implemented.	Code Yellow	Licensee to report on compliance by 30 June 2014.
O2.1b	The licensee must operate plant and equipment associated with the Continuous Emissions Monitoring equipment on Compressor engine 3 in a proper and efficient manner. The licensee must comply with the requirements set out in the 'Enforceable Undertaking' dated 8 August 2013.	Code Yellow	Refer to requirements outlined in 'Enforceable undertaking' dated 8 August 2013
M1.3	<u>Air monitoring</u> The licensee must keep records in respect of samples required to be collected by the licence which show the name of the person who collected the sample.	Code Blue	When sampling is next required

Condition No.	Action Details	Non-Compliance Code	Target/Action Date
M2.1/ M2.2	<p><u>Quarterly air monitoring</u></p> <p>The licensee must use the sampling method specified in the licence condition for sulphur dioxide, dry gas density and the molecular weight of stack gases. In exceptional circumstances, the EPA may approve the use of an alternative method. To obtain approval to use an alternative method the licensee must apply in writing to the EPA - see details on p.1 of the Approved Methods</p> <p>http://www.epa.nsw.gov.au/air/appmethods.htm</p> <p><u>Update:</u> The licensee advised on 25 March 2014 that this condition is part of DA 282-6-2003i and they are currently prevented from modifying it until the Mining SEPP is amended to allow modification to development consents. When this occurs they will submit a Licence Variation Application to EPA and a Development Consent Modification Application to Department of Planning and Infrastructure (DoPI).</p>	Code Blue	When sampling is next required or apply for approval of alternative method.
M2.3	<p><u>Continuous air monitoring - pollutants monitored</u></p> <p>Point 1: The licensee must monitor the pollutants specified in the licence condition.</p> <p>Points 2 and 3: The licensee must comply with the requirements set out in the 'Enforceable Undertaking' dated 8 August 2013.</p>	Code Blue	Point 1- Immediately/ Ongoing Points 2 and 3- refer to 'Enforceable undertaking'
	<p><u>Continuous air monitoring - sampling method at Point 1</u></p> <p>The licensee must use the sampling method specified in the licence condition for all pollutants. In exceptional circumstances, the EPA may approve the use of an alternative method. To obtain approval to use an alternative method the licensee must apply in writing to the EPA - see details on p.1 of the Approved Methods</p> <p>http://www.epa.nsw.gov.au/air/appmethods.htm</p>	Code Blue	Immediately
	<p><u>Continuous air monitoring - sampling frequency</u></p> <p>The licensee must sample at the frequency specified in the licence condition.</p>	Code Blue	Point 1 - Ongoing Points 2 and 3 - refer to 'Enforceable undertaking'

Condition No.	Action Details	Non-Compliance Code	Target/Action Date
M2.4	The licensee must select sampling positions for quarterly monitoring at points 1, 4 and 5 in accordance with TM-1.	Code Blue	Points 1 and 4 - Ongoing. Point 5 – as required by licence condition.
M2.5	The licensee must monitor for the pollutant <i>bromide</i> rather than <i>bromine</i> . <u>Update:</u> The licensee advised on 25 March 2014 that samples are now monitored for bromide.	Code Blue	When sampling is conducted.
M3.1	<u>Air monitoring</u> The licensee must monitor in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW (the Approved Methods). <u>Update:</u> In relation to including certain information in summary reports, the licensee advised on 25 March 2014 that this information will be included in all future reports.	Code Blue	When sampling is conducted.
M3.2	<u>Water monitoring</u> The licensee must use the sampling method specified in the EPA Approved Methods Publication. Or The licensee must apply in writing to the EPA for approval to use an alternative method. <u>Update:</u> The licensee advised on 25 March 2014 that they will apply for approval to address the method used for methane as part of the Licence Variation Application that will be submitted for sulphur dioxide, dry gas density and the molecular weight of stack gases (see condition M2.1).	Code Blue	When sampling is next required or apply for approval of alternative method.
M5.2 (a) and (c)	All records of complaint must include the time that each complaint was made and the personal details of the complainant. If no such details are provided then a note must be made to that effect. <u>Update:</u> The licensee advised on 25 March 2014 that a new system has been introduced that records this information.	Code Blue	When next complaint is received.
R1.5	The licensee must submit the Annual Return no later than 60 days after the end of each reporting period.	Code Blue	When next Annual Return is due.
R1.10	The licensee must undertake noise monitoring in accordance with the NSW Industrial Noise Policy August 2000.	Code Blue	Ongoing.

APPENDIX A

LICENSEES RESPONSE TO DRAFT REPORT

Ms Marina Hatzakis
Senior Environmental Compliance Auditor
Environment Protection Authority
PO Box A290
Sydney South NSW 1232
Marina.Hatzakis@epa.nsw.gov.au

11 February 2014

Dear Ms Hatzakis,

Draft Compliance Audit Report – AGL Upstream Investments Pty Limited (AGL)
Rosalind Park Gas Plant (Environment Protection Licence Number 12003)
Your reference: FIL 13/6820

I refer to the Environment Protection Authority's (EPA) letter dated 21 January 2014 in relation to the *Draft Compliance Audit Report AGL Upstream Investments Pty Limited Rosalind Park Gas Plant*.

Our comments on the Draft Compliance Audit Report are set out below and we have identified corrective actions to address issues raised within the report (refer Section 14 and Tables 1 and 2 of the report).

1. Executive Summary

The Executive Summary identifies five Code Yellow non-compliances within the audit scope. AGL advised the EPA regarding three of these non-compliances and they have consequently been, or are currently being, addressed under the Enforceable Undertaking (dated 8 August 2013). These three Code yellow non-compliances are:

- exceeding oxides of nitrogen (NOx) emission limits at discharge Points 1 and 2;
- not operating the continuous emissions monitoring equipment on Compressor engine 3 in a proper and efficient manner; and
- not monitoring for all the required pollutants or monitoring air emissions continuously at discharge points 1, 2 and 3.

We acknowledge that the EPA's comments under "Comment" in table 2.1 and "Target/Action Date" in table 4.1 indicate which non-compliances are addressed in the Enforceable Undertaking. We request that the EPA identify in the Executive Summary the fact that these three Code Yellow non-compliances have already been dealt with under the Enforceable Undertaking, and are consequently not 'new issues' (**Request (R)1**).

2. Condition L3.1 and L3.4

In relation to Point 1, we request that the EPA change "November 2013" to "November 2012" (**R2**).

In relation to Point 2, we request that the EPA change "November and December 2012" to "September and November 2012" (**R3**).

3. Condition L4.1

In accordance with the definitions of the criteria in the EPA's *Compliance Audit Handbook*, we request that the EPA consider rating Condition L4.1 as Compliant.



Condition L4.1 provides that:

The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column title 'Waste' and meeting the definition, if any, in the column titled 'Description' in the table below.

Our site representative confirmed that no waste was received at the premises, and the auditor's observation during the audit was that no waste was being received at the premises. In addition, the EPA's comment in the report indicated that it had no reason to believe that AGL had been receiving waste at the premises. Consequently we have complied with Condition L4.1 in that we did not "cause, permit or allow any waste to be received at the premises".

We request that the EPA consider amending this condition from "Not applicable" to "Yes" (R4).

4. Condition L8.3

No hydraulic fracturing has been undertaken since 2009. We request that the EPA change the date from "2008" to "2009" (R5).

5. Condition O1.1

AGL requests that "waste water" on page 12 be changed to "produced water" and that "produce water" be amended to "produced water" (R6).

We request that the EPA consider changing "No Code Yellow" ratings for both "Underground storage tanks (oily water)" (R7) and "Transfer of produce[d] water from tankers to the flare pit" to "Yes" (R8).

The obligation under Condition O1.1 is to carry out the licensed activities in a competent manner. We have measures in place to competently carry out the licensed activities, including managing environmental risks associated with water pollution.

Underground storage tanks (oily water)

AGL has measures in place to monitor the integrity of the underground storage tanks. Our daily operations worksheet requires us to visually inspect the underground storage tank levels up to 6 times each day, and trained personnel visually monitor the transfer of water between the underground storage tanks and the oily water treatment plant to manage tank levels and prevent loss of containment. Enclosed is a sample of the daily operations worksheet. We have also conducted a clean out/de-sludge of the 65 kl underground storage tank on 11 July 2013 (i.e., during the audit period) which included confined space entry into the tank. The 15 kl underground storage tank was cleaned out on 5 November 2013 which, while conducted after the audit period, was a maintenance activity scheduled for the plant shutdown. In addition, to provide further context, we understand that the depth to the water table is in excess of 35m below ground level and that it is unlikely that there is temporary perched groundwater in the area.

Our records of visual assessment of underground storage tank levels and supervision during transfers provides evidence that the integrity of the underground storage tanks has been assessed. Consequently we request that the EPA consider changing the rating from "No Code Yellow" to "Yes" (R7).

Notwithstanding the compliance rating category, we have commenced review and documentation of our procedure to monitor the integrity of the two underground storage tanks (65 kl and 15 kl) (AGL Action (A) 1). This review will be completed by 21 March 2014.

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Transfer of produce[d] water from tankers to the flare pit

Transfer of produced water from our tankers to the flare pit is supervised by trained personnel. In addition, AGL has an Emergency Response Plan (and Pollution Incident Response Management Plan) in place to manage spills (if required), and records are completed and recorded on our incident management database if such spills take place. During the audit period, no spills were reported (c.f. page 26 of the draft report where the EPA rated "notification of environmental harm" to be "not applicable" because "there have been no incidents that have occurred in the past 12 months that have caused or threatened material harm to the environment").

As a result of the supervision of the transfer of produced water to the flare pit and the absence of recorded incidents regarding spills or leaks during the transfer of produced water to the flare pit, we request that the EPA consider changing the rating from "No Code Yellow" to "Yes" (**R8**).

Notwithstanding the compliance risk category, we have commenced review of the current process for the transfer of produced water to the flare pit and associated containment considerations and development of a corrective action plan (**A2**). The review and development of the corrective action plan will be completed by 21 March 2014.

6. Condition M2.1

In relation to the EPA's comment on sulphur dioxide, we have received advice from two air specialist consultancies, Emission Testing Consultants (ETC) and EML Air Pty Ltd (EML) that TM-3 is an appropriate alternative to TM-4 for sampling sulphur dioxide.

The use of TM-3 as an alternative to TM-4 has been documented in previous air emissions monitoring reports which AGL has submitted to the EPA. We have been advised by our current air specialist, ETC, that TM-3 also allows for lower detection limits of sulphur dioxide.

To address the EPA's concern, we will submit an EPL variation application to the EPA to request that Condition M2.1 be varied to reflect TM-3 as the sulphur dioxide sampling method (**A3**).

7. Condition M2.4

It appears that the EPA comments in relation to the former Condition M2.4 (now M2.5) do not capture the actions that were taken by AGL prior to the audit to address the previous non-compliances. Specifically:

- Point 1 – AGL has informed the EPA in the 2011-12 Annual Return that the non-compliance for Point 1 was rectified in October 2012. All quarterly air emissions monitoring reports since that time have confirmed compliance with TM-1. We request that the EPA include this information to provide an accurate account of the compliance status for the audit period (**R9**).
- Point 5 – AGL requests that the EPA include details of the EPL variation made by the EPA on 22 October 2013 to include Condition M2.6 which excludes velocity for the purpose of compliance with TM-1 (**R10**).

8. Condition M2.5

We acknowledge that the former Condition M2.5 (now M2.7) requires AGL to monitor for bromide at Points 8, 9, 10, 11, 12, 13, 14 and 15. This condition was developed by AGL and the EPA based upon the Camden Gas Project Groundwater Management Plan which requires monitoring for bromine. We will monitor for Bromide and Bromine going forward (**A4**).

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9. Condition M3.1

Accreditation

The method prescribed for molecular weight/dry gas density measurement in EPL 12003 is NSW TM-23 (USEPA method 3).

AGL's air specialist consultant ETC used NSW TM-24 (USEPA Method 3A) and NSW TM-25 (USEPA Method 3A) to measure carbon dioxide and oxygen concentrations respectively in order to calculate molecular weight/dry gas density from these concentrations. Our former consultant EML also used the same methods. These methods use gas analysers to measure oxygen and carbon dioxide. ETC and EML are NATA accredited for USEPA Method 3A.

NSW TM-23 (USEPA Method 3) uses an Orsat or Fyrite analysis to measure oxygen and carbon dioxide concentrations. These are wet chemistry devices and as such are less accurate and more prone to interference than NSW TM-24 plus NSW TM-25 (USEPA Method 3A) which use gas analysers calibrated against certified gas standards.

Our specialist consultants have advised us that it is standard practice in the stack testing industry to use USEPA Method 3A to calculate molecular weight/dry gas density as it is a significant improvement from USEPA Method 3.

To address the EPA's concern, we will submit an EPL variation application to the EPA to request that Condition M3.1 be varied to reflect USEPA Method 3A as the molecular weight/dry gas density sampling method (A5).

We request that the EPA consider referring to the EPL variation which was approved on 22 October 2013 which introduced Condition M2.4 that allows the alternative method approved by the EPA to continuously sample for moisture on Points 1, 2 and 3 (R11).

Analytical Report

Our future quarterly air emissions reports will include details of source or process operating conditions during sampling, the precision of the results using AS2706 as a guide, and details of the most recent calibration of each instrument used to take measurements (A6).

10. Condition M3.2

We will submit an EPL variation application to the EPA for approval to use an alternative test method (A7).

11. Condition M5.2

Our future complaints will be recorded with details of the time and name of the complainant. In circumstances where we are not provided with this information, a record will be made to that effect (A8).

12. Condition R1.5

We request that the EPA refer to the fact that this non-compliance was declared in the 2011-2012 Annual Return (R12).

13. Condition R1.10

Our specialist noise consultant, Wilkinson Murray, assesses compliance with Condition L5.1 in accordance with the *NSW Industrial Noise Policy August 2000*.

During the EPA's audit, copies of AGL's annual noise compliance monitoring report were requested by the auditor, and were provided by AGL. The annual noise compliance monitoring reports refer to the quarterly compliance noise monitoring undertaken by Wilkinson Murray throughout the year. However, the EPA did not request the detailed

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quarterly compliance noise monitoring reports. These quarterly compliance noise monitoring reports include a description of the weather conditions at the time of monitoring, noise instrumentation used with calibration certificates provided, and exact date, times and duration of noise monitoring. Enclosed is a copy of a quarterly noise monitoring report.

We request that the EPA change the rating for R1.10 from "No Code Blue" to "Yes" (R13).

14. Summary of Requests and Actions

Table 1: Summary of Requests for consideration by the EPA

Request No.	Condition No.	Request
1	Executive Summary	The Executive Summary identifies the Code Yellow non-compliances that have already been dealt with under the Enforceable Undertaking and are consequently not new issues.
2	Condition L3.1 and L3.4	Change "November 2013" to "November 2012".
3	Condition L3.1 and L3.4	Change "November and December 2012" to "September and November 2012".
4	Condition L4.1	Consider amending this condition from "Not applicable" to "Yes".
5	Condition L8.3	Change the date from "2008" to "2009".
6	Condition O1.1	Change "waste water" on page 12 to "produced water" and "produce water" to "produced water".
7	Condition O1.1	Consider changing the rating from "No Code Yellow" to "Yes".
8	Condition O1.1	Consider changing the rating from "No Code Yellow" to "Yes".
9	Condition M2.4	Include further information to provide an accurate account of the compliance status for the audit period.
10	Condition M2.4	Refer to the EPL variation made by the EPA on 22 October 2013 to include Condition M2.6 which excludes velocity for the purpose of compliance with TM-1.
11	Condition M3.1	Refer to the EPL variation which was approved on 22 October 2013 which introduced Condition M2.4 that allows the alternative method approved by the EPA to continuously sample for moisture on Points 1, 2, and 3.
12	Condition R1.5	Reflect that this non-compliance was declared in the 2011-2012 Annual Return.
13	Condition R1.10	Change the rating from "No Code Blue" to "Yes".

Table 2: Summary of AGL Actions

Action No.	Condition No.	Action	By When
1	O1.1	Review and document the procedure to monitor the integrity of the two underground storage tanks (65 kl and 15 kl).	21 March 2014
2	Condition O1.1	Review the current process for the transfer of produced water to the flare pit and associated containment considerations and develop a corrective action plan.	21 March 2014
3	Condition M2.1	Submit an EPL variation application to the EPA to request that Condition M2.1 be varied to reflect TM-3 as the sulphur dioxide sampling method.	21 March 2014

AGL is taking action toward creating a sustainable energy future for our investors, communities and customers. Key actions are:

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Action No.	Condition No.	Action	By When
4	Condition M2.5	Monitor for Bromide and Bromine.	Immediately and ongoing
5	Condition M3.1	Submit an EPL variation application to the EPA to request that Condition M3.1 be varied to reflect USEPA Method 3A as the molecular weight/dry gas density sampling method.	21 March 2014
6	Condition M3.1	Include details of source or process operating conditions during sampling, the precision of the results using AS2706 as a guide, and details of the most recent calibration of each instrument used to take measurements.	21 March 2014
7	Condition M3.2	Submit an EPL variation application to the EPA for approval to use an alternative test method.	21 March 2014
8	Condition M5.2	Future complaints will be recorded with details of the time and name of the complainant. In circumstances where we are not provided with this information, a record will be made to that effect.	Immediately and ongoing

I would like to thank you for the opportunity to provide comment on the Draft Compliance Audit Report. Please contact me on aclifton@agl.com.au or 02 4633 5206 if you have any further question in regards to the comments set out in this letter.

Yours sincerely,

Aaron Clifton
Environment Manager
AGL Upstream Investments Pty Limited

Enclosures
Daily Operations Worksheet
Wilkinson Murray Quarterly Noise Monitoring report

- > Being selected as a member of the Dow Jones Sustainability Index 2006/07
- > Gaining accreditation under the National GreenPower Accreditation Program for AGL Green Energy®, AGL Green Living® and AGL Green Spirit
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Start Date

Day Operator

Night Operator

23/4/13

Tylec

CM

	Inlet P.C.V		Inlet Slug Catcher		Inlet Separator V300			V299/V600		Inlet Separator V600			PCV-1100		Discharge Scrubber	
	Nitrogen Pressure (kPa)	Setting (<=400 kPa)	Pressure (55-400 kPa)	Level (23-40 cm)	Bottom Level (<10cm)	Differential (0-25kPa)	Top Level (<10cm)	Fusible Plug (>350kPa)	Bottom Level (0-25kPa)	Differential (0-25kPa)	Top Level (<10cm)	% Open	Liquid Level (<40cm)	Pressure (kPa)		
0800	14100	400	85	54	-	-	-	350	20	1.4	15	82	11	4375		
1200	15100	400	86	54	-	-	-	360	20	0.6	15	100	14	4367		
1600	15500	400	85	54	-	-	-	360	20	0.6	15	100	10	4371		
2000	15000	420	85	54	-	-	-	360	20	0.5	14	96	10	4354		
0000	15000	420	85	54	-	-	-	360	20	0.9	14	100	10	4408		
0400	15000	420	86	55	-	-	-	360	20	1.1	14	100	10	4404		

Instrument and Fuel Gas				Fuel Gas				Start Gas				TEG Unit			
FG Press after PCV-371	Vessel Pressure	Nitrogen Bottle Pressure	Flare	Fusible Plug	System Pressure	Pilot Gas Flow	After PCV P1243	After PCV P1244	Header Pressure	Pressure Switch Reset	Reboiler Level	Burner Flue Gas Temp	Reboiler Temp	Reboiler Pressure	Surge Drum Level
>450 <550 kPa	>700 <800 kPa	>1200 kPa	>2 m ³ /hr	>350 kPa	>3000 kPa	>700 <900 kPa	<3000 kPa	>700 <900 kPa	>450 kPa	OK/Reset	>37 <44 cm	>275 °C	>190 °C	<3 kPa	>40 <70 cm
480	740	13600	2.6	600	2900	760	2900	760	660	Reset	40	310	185.2	0	47
480	720	13500	2.7	600	2900	760	2900	760	640	Reset	40	300	185.0	0	47
480	715	13500	2.7	600	2900	760	2900	760	630	Reset	40	302	185.2	0	47
480	750	-	2.7	600	2900	760	2900	760	630	Reset	40	300	185	0	47
480	750	-	2.7	600	2900	760	2900	760	630	Reset	40	305	185	0	47
480	750	-	2.7	600	2900	760	2900	760	630	Reset	40	305	185	0	47

TEG Unit										TEG Unit			
Burner Fuel Gas					Glycol Heat Exchanger Temperatures					TEG Contactor			
Condenser Temp	Supply	Pilot	Main	kPa	R. Glycol Out (T1-212)	L. Glycol In (T1-211)	R. Glycol In (T1-213)	L. Glycol In (T1-214)	L. Glycol Out (T1-214)	Particle Filter	Glycol In Temp	Level	Pressure
<99 °C	>200 kPa	>7 kPa		73	140	173	171	57	57	(dp < 200 kPa)	(T1-216)	>20 <55 cm	>400 kPa
85	225	-	60	60	137	171	171	56	56	(dp < 500 kPa)	19	43	4371
88	225	-	64	64	137	171	171	55	55		27	43	4358
89	225	-	72	72	140	172	172	54	54		27	43	4366
90	225	-	70	70	140	172	172	54	54		42	43	4340
90	225	-	65	65	140	172	172	50	50		43	43	4399
90	225	-	65	65	140	172	172	50	50		40	43	4356

TEG Unit					G.C					Plant Tank Levels				
TEG Pump 202		Lean TEG Flow	Stripping Gas Flow	Oil Water Pot	Methane Content	Heating Value	Wobbe Index	Unnormalised	Comp # 1 Water Tank	Comp # 3 Water Tank	Comp # 3 Bund Water	Main Only Water Tank		
Duty Pump	Dis. Pressure	(2820 kg/hr)	(> 6 kg/hr)	Flowing Freely	mole %	MJ/sm ³		%	CM from bottom	CM from bottom	CM from top	CM from top		
A (B)	4200	1600	6	Yes	45.947	36.297	47.18	100.91	210	192	300	200		
A (B)	4300	1600	6	Yes	45.937	36.293	47.18	100.26	210	192	300	200		
A (B)	4300	1600	6	Yes	45.935	36.318	47.22	100.37	210	192	300	200		
A (B)	4200	1600	6	Yes	45.982	36.235	47.22	100.58	210	192	300	200		
A (B)	4200	1600	6	Yes	46.001	36.319	47.23	101.29	210	192	300	200		
A (B)	4200	1600	6	Yes	45.959	36.305	47.19	101.24	210	192	300	200		

10 April 2013

WM Project Number: 06159-B
Our Ref: AGL100413 RH_ComplianceResults

Mr Tom Lawler
AGL Upstream Investments Pty Ltd
Lot 35, Medhurst Road
MENANGLE NSW 2568D2

Dear Tom

**Re: Rosalind Park Gas Plant - Quarterly Compliance Noise Monitoring
(April 2013)**

Introduction

Quarterly noise monitoring of the AGL Upstream Investments Pty Ltd Rosalind Park Gas Plant (RPGP) was carried out by Wilkinson Murray in order to assess compliance with the relevant noise limits set by the Environment Protection Authority's (EPA) *Environment Protection Licence Conditions* (Licence No. 12003) and the Department of Planning and Infrastructure's *Conditions of Consent* (DA No. 282-6-2003-i).

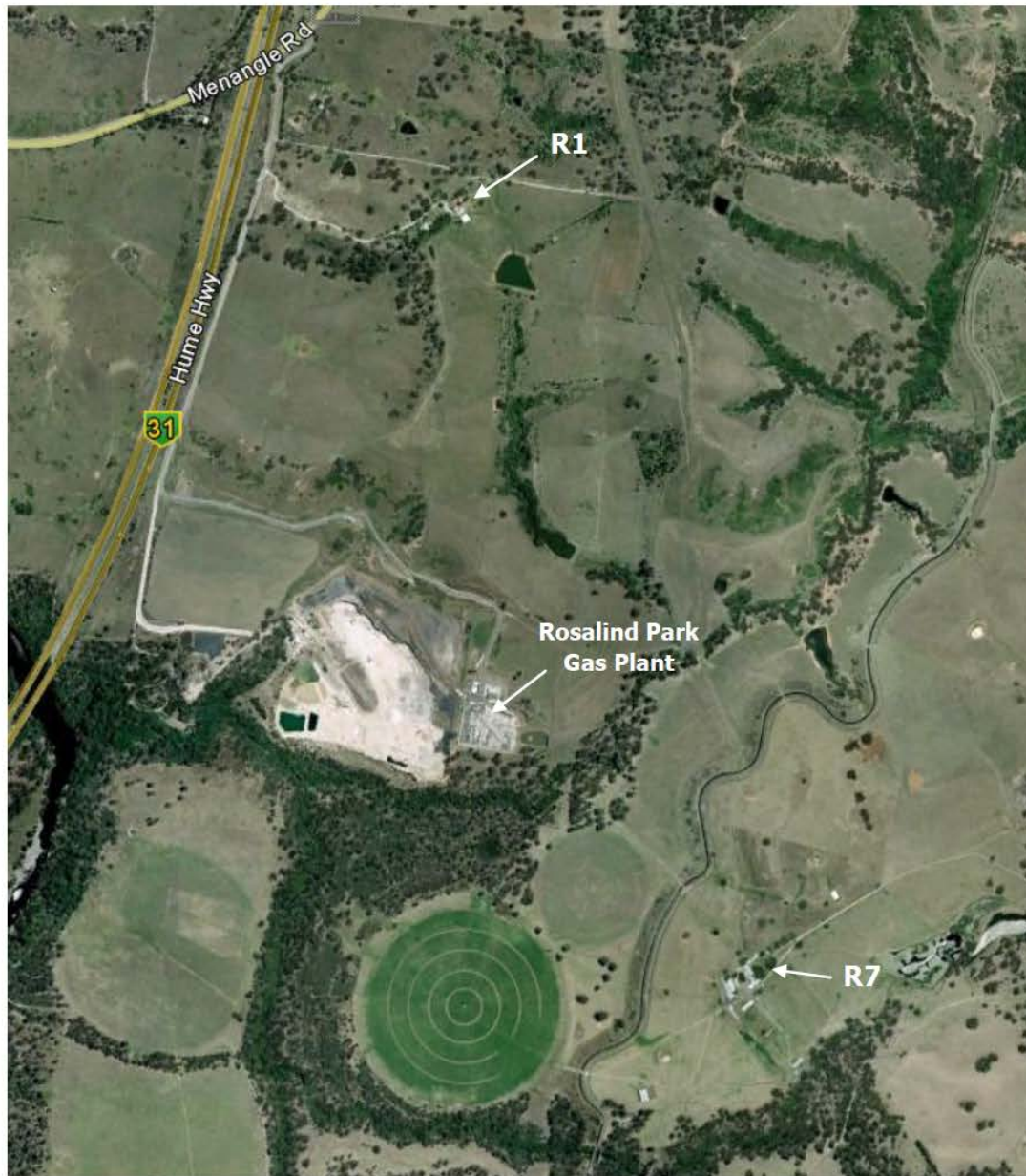
The compliance assessment is based on noise monitoring conducted on Wednesday, 3 April 2013.

Site / Project Description

Two receiver locations were identified in the Rosalind Park Gas Plant Environmental Impact Statement (EIS) where compliance noise measurements are to be undertaken. These are shown in Figure 1 and are listed as follows:

- R1: Medhurst Road, Gilead (approx. 0.9km north of RPGP); and
- R7: Mount Gilead, Gilead (approx. 1.1km southeast of RPGP).

Both receiver locations represent the residential premises most impacted by noise emanating from the RPGP.

Figure 1 Noise Monitoring Locations**Noise Limits**

The noise limits identified in the EPA's Licence Condition L6.1 (Licence No. 12003) apply to daytime, evening and night time periods and are expressed as $L_{Aeq,15min}$ noise levels. The noise limits are summarised in Table 1.

Table 1 Noise Limits - (EPA Licence No. 12003)

Location	Daytime	Evening	Night Time
	(7am-6pm Mon-Sat, 8am-6pm Sun)	(6pm -10pm)	(10pm-7am Mon-Sat, 10pm-8am Sun)
	$L_{Aeq,15min}$ (dBA)	$L_{Aeq,15min}$ (dBA)	$L_{Aeq,15min}$ (dBA)
R1	35	35	35
R7	37	36	36

Monitoring Procedure

Noise monitoring was conducted at both identified receivers for the three time periods defined in Table 1 in order to assess compliance for the day, evening and night time periods.

Measurements were carried out on Wednesday, 3 April 2013. Monitoring was carried out during typical operating conditions (2 compressor units operating simultaneously). The measurements were conducted in suitable meteorological conditions (low wind speeds and no rain).

The measurements were made using a B&K Type 2236 Sound Level Meter. The sound level meter holds a current NATA calibration certificate (Calibration Certificate valid for 2 years is attached to this letter).

All attended noise measurements were conducted at a location representative of the most affected point within the 30m perimeter surrounding the house for both identified noise sensitive receivers.

Monitoring Results

Table 2 summarises the noise results expressed as $L_{Aeq,15min}$ noise levels and assesses them against the relevant criteria.

Table 2 Noise Monitoring Results – Wednesday, 3 April 2013

Period	Time	Location	Comments	Measured	Noise Limits - (EPA Licence No. 12003)		
				L _{Aeq,15min} due to RPGP (dBA)	Day (7am-6pm Mon-Sat, 8am-6pm Sun) L _{Aeq,15min} (dBA)	Evening (6pm -10pm) L _{Aeq,15min} (dBA)	Night (10pm-7am Mon-Sat, 10pm-8am Sun) L _{Aeq,15min} (dBA)
Day	4.42pm – 4.57pm	R7	RPGP audible at times with levels estimated 31-33dBA. Hume Hwy traffic 40-41dBA and L _{Amax} 52dBA with compression braking. Insects audible at all times 40-41dBA. Aeroplanes L _{Amax} 51dBA.	32	37	-	-
	5.30pm – 5.45pm	R1	RPGP inaudible at all times. Hume Hwy traffic 37-41dBA. Insects audible at all times 37-40dBA. Aeroplanes L _{Amax} 54dBA.	n/a*	35	-	-
Evening	7.18pm – 7.33pm	R7	RPGP audible at times with levels estimated 33-34dBA. Hume Hwy traffic 36-41dBA. Insects audible at all times 38-39dBA. Aeroplanes L _{Amax} 54dBA.	34	-	36	-
	8.02pm – 8.17pm	R1	RPGP inaudible at all times. Hume Hwy traffic 38-42dBA. Insects audible at all times 37-39dBA. Aeroplanes L _{Amax} 56dBA.	n/a*	-	35	-
Night	10.00pm – 10.15pm	R7	RPGP audible at times with levels estimated 32-35dBA. Hume Hwy traffic 40-45dBA and L _{Amax} 50dBA with compression braking. Aeroplanes L _{Amax} 60dBA.	34	-	-	36
	10.50pm – 11.05pm	R1	RPGP inaudible at all times. Hume Hwy traffic 39-44dBA. Insects audible at all times estimated 30-34dBA.	n/a*	-	-	35

Note: n/a* = inaudible

Conclusion

The results of the April 2013 quarterly noise monitoring of the Rosalind Park Gas Plant show compliance with the relevant operational noise limits set by the EPA's *Environment Protection Licence Conditions* (Licence No. 12003) at both receiver locations for day, evening and night time with typical operating conditions.

I trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully

WILKINSON MURRAY

A handwritten signature in blue ink, appearing to read 'R. Haverkamp', with a stylized flourish at the end.

Roman Haverkamp
Senior Engineer

**Acoustic Research Laboratories**

Proprietary Limited

A.B.N. 47 050 100 804

Noise and Vibration Monitoring Instrumentation for Industry and the Environment



Sound Level Meter Test Report

Report Number : C11409

Date of Test : 1/08/2011

Report Issue Date : 1/08/2011

Equipment Tested/ Model Number: B&K Type 2236 Sound Level Meter

Instrument Serial Number: 2030550

Microphone Serial Number: 1903087

Preamplifier Serial Number: N/A

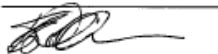
Client Name : Wilkinson Murray Pty Ltd

Level 2, 123 Willoughby Road

Crows Nest NSW 2065

Contact Name : Sam Demasi

Tested by : Adrian Cormick

Approved Signatory : 

Date : 1/08/2011



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APPENDIX B

LETTER COVERING LICENSEES RESPONSE TO DRAFT COMPLIANCE AUDIT REPORT



Our reference: FIL13/ 6820
Contact: Chris Kelly 02 4224 4118

Aaron Clifton
AGL Upstream Investments Pty Limited
Level 22, 101 Miller St
NORTH SYDNEY NSW 2060

Dear Mr Clifton

**Re: FINAL Compliance Audit Report - AGL Upstream Investments Pty Limited
Rosalind Park Gas Plant (Licence Number 12003)**

The Environment Protection Authority (EPA) is pleased to present you with a copy of the Final Compliance Audit Report for the Rosalind Park Gas Plant and associated infrastructure located in Gilead.

The comments provided by you in your letter dated 11 February 2014, have been considered when finalising the report. The comments have also been attached as an Appendix to the final report together with a copy of this letter. The following table provides further information as a response to each of your comments.

AGL comment - condition number/section	EPA response
Exec. Summary	Information has been added to the Executive Summary to address the points raised in your comments.
L3.1 & L3.4	The dates have been amended in the report. In relation to Nitrogen oxides at Point 1, the statement that "there have been no exceedances since that time" has been removed as there were exceedances on 4 and 13 August 2013.
L4.1	The EPA has reviewed this assessment. Based on the evidence and your written confirmation that no waste has been received over the 12 months, the assessment has been changed to 'yes'.
L8.3	The date in the report has been amended as per the information provided.

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www.epa.nsw.gov.au

O1.1	<p>"Wastewater" has been changed to "produced water" in relation to the transfer of water from tankers to the flare pit. However, this has not been changed in relation to the water in the underground storage tanks as it is oily water.</p> <p><u>Underground storage tanks</u></p> <p>The information provided by AGL about the procedures in place to monitor the integrity of the underground tanks is not sufficient to ensure that the underground storage of oily water is being undertaken in a competent manner. Standard methods to monitor the integrity of underground tanks include:</p> <ul style="list-style-type: none"> • Automatic tank gauging • Statistical inventory analysis • Automatic leak detection systems • Groundwater monitoring <p>The information provided by AGL does not indicate that AGL is using any of the above methods to monitor the integrity of the tank. Desludging and visual observation of the tank by itself does not provide any information on assuring the integrity of the tank.</p> <p>Manual tank gauging even for steel tanks is only recommended for tanks that have a capacity of less than 5500 litres.</p> <p>It is noted that AGL is reviewing procedures to monitor the integrity of the underground storage tanks. No change has been made to the assessment.</p> <p><u>Transfer of produced water</u></p> <p>The EPA notes the procedures AGL has in place to minimise spills and leaks during transfer. However considering the large volume of highly saline produced water being transferred daily and the lack of any secondary containment, the EPA has assessed the activity of managing environmental risks from the transfer of produced water as not being undertaken in a competent manner and no change to the assessment of compliance has been made.</p> <p>It is noted that AGL is reviewing procedures in relation to transferring produced water to the flare pit and the containment of potential spills in this area.</p>
M2.1/M2.2	<p>Your comments have been noted regarding the method used for sampling sulphur dioxide and that you are submitting a variation application to address this issue.</p> <p>In light of the information you have provided on the method used for dry gas density and molecular weight in relation to condition M3.1, the assessment of this condition has been changed from 'not determined' to 'no' for these indicators as the method specified in the licence has not been used.</p>
M2.4	<p>In relation to Point 1, the report has been amended to include a note regarding compliance with TM-1 for all other sampling events.</p> <p>In relation to Point 5, the report has been amended to include a note regarding the variation of the licence to reflect the sampling at Point 5.</p>
M2.5	<p>Your comments have been noted.</p>
M3.1	<p>Your comments regarding the methods used for dry gas density/molecular weight of stack gases have been noted and comments on these indicators have been removed from this part of the report but the information provided has now changed the assessment in relation to these indicators against condition M2.1/M2.2. It is noted that you are submitting an application to vary the EPL.</p>

	<p>In relation to moisture, the report has been amended to include a note regarding the variation to the EPL.</p> <p>In relation to the Analytical Report, after further consideration the reference to signing the reports has been removed. The reports were not provided as a result of a statutory requirement or formal written request but were provided to the EPA as requested during the audit inspection and therefore it is not considered necessary to require the signing of the reports. However, it is still necessary for the reports to contain the required information.</p> <p>It is noted that AGL will provide all the required information in future air emission reports.</p>
M3.2	It is noted that AGL will submit an application to vary the EPL.
M5.2	It is noted that AGL will record the required information about complaints as required by the condition.
R1.5	Your comments have been considered and a note has been added to the report to address the issue you raised.
R1.10	The submission of the quarterly noise monitoring report verifies that the noise instrumentation used has been recorded. This part of the non-compliance has been removed. However it is noted that the submitted report does not record the 'weather instrumentation used' or the 'sky cloud cover' as required by the Industrial Noise Policy. This part of the non-compliance remains.

A copy of the report will now be made available on the POEO Public Register at <http://www.epa.nsw.gov.au/prpoeo/index.htm>

I would like to take this opportunity to thank you and your staff for the co-operation during the audit. If you require further information or clarification on any matters regarding this audit, please do not hesitate to contact Chris Kelly on 02 4224 4118.

Yours sincerely

Kieran Lynch 13/6/14

KIERAN LYNCH
A/Manager Compliance and Assurance Section
Environment Protection and Regulation

Enclosure: FINAL Audit Report AGL Upstream Investments Pty Limited