

Newcastle Gas Storage Facility

Pre-Operations Audit Report (AGL) May 2015

AGL Energy Limited
June 2015

0169504 Final

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FINAL REPORT

AGL Energy Limited

Newcastle Gas Storage Facility *Pre Operations Audit May* 2015

June 2015

Reference: 0169504 Pre Operations Audit Report

Environmental Resources Management Australia

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Newcastle Gas Storage Facility

Pre-Operations Audit Report - May 2015

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EXECUTIVE SUMMARY

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform a pre-operations audit for the Newcastle Gas Storage Facility (NGSF) on behalf of AGL Energy Limited (AGL). The primary purpose of the audit was to satisfy the Department of Planning and Infrastructure (DP&I) Ministers' Conditions of Approval (MCoA) B54a, which requires a Compliance Tracking Program that includes:

"(a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project and within two years of operation commencement".

The audit included a review of:

- DP&I MCoA;
- Statement of Commitments (SoC); and
- approval conditions from the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC).

The audit is limited to a document review only. The implementation of the Operations Environment Management Plan and the associated sub plans will be assessed once operations have commenced.

The Contractor has established the control systems generally required for a project of this nature.

Overall, substantial conformance was achieved with the audit documents that were reviewed with the exception of seven non-conformances and eight improvement opportunities. The primary findings relate to administrative errors or omissions in the Operating Environment Management Plan and supporting plans.

An action response table has been developed addressing all audit findings and is included in Annex D. All actions have now been completed with the exception of two findings.

Further audits will be completed to assess the implementation of the OEMP and supporting plans once operations commence.

ABBREVIATIONS AND GLOSSARY

	D 1.1
Term	Description
AGL	AGL Energy Limited
AQMP	Air Quality Management Plan
CB&I	CB&I Constructers Pty Ltd
CEMP	Construction Environment Management Plan
DP&I	Department of Planning and Infrastructure
DSEWPaC	Department of Sustainability, Environment, Water, Population and
	Communities
ECN	Electrical Connection Works in Primary Project Area
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ERM	Environmental Resources Management Australia Pty Ltd
EPL	Environment Protection Licence
ER	Environmental Representative
ERP	Emergency Response Plan
FMP	Flood Management Plan
GMP	Groundwater Monitoring Program
HDD	Horizontal Directional Drilling
HPW	High Pressure Pipeline Works
HRBG	Hunter Region Botanical Gardens
HRS	Hunter Receiving Station
HV	High Voltage
HWC	Hunter Water Corporation
IO	Improvement Opportunity
HRS	Hexham Receiving Station
JRS	Jemena Receiving Station
LEP	Local Environmental Plan (LEP)
LNG	Liquid Nitrogen Gas
LOR	level of reporting
LPW	Low Pressure Pipeline Works
LV	Low Voltage
Lucas Engineering	Lucas Engineering and Construction Pty Ltd
MCoA	Ministers Conditions of Approval
NCC	Newcastle City Council
NC-1	Non-compliance Category 1
NC-2	Non-compliance Category 2
NGSF	Newcastle Gas Storage Facility (the 'Project')
NOW	New South Wales Office of Water
NMP	Noise Management Plan
OEH	Office of Environment and Heritage
OEMP	Operations Environment Management Plan
OOHW	Out of Hours Work
OWMP	Operation Water Management Plan
PASS	Potential Acid Sulphate Soil
PoEO Act	Protection of the Environment Operations Act 1997
PowerServe	PowerServe Pty Ltd
	·
PPA PSC	Primary Project Area
PSC	Port Stephens Council
SDS	Safety Data Sheet
SEPP	State Environmental Planning Policy
SoC	Statement of Commitments
TDS	total dissolved solids
TMM	Traffic Management Measures
WMP	Waste Management Plan

1 INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform a pre-operations audit for the Newcastle Gas Storage Facility (NGSF) (the 'Project') on behalf of AGL Energy Limited (AGL).

The primary purpose of the audit was to satisfy the New South Wales (NSW) Department of Planning and Infrastructure (DP&I) Ministers' Conditions of Approval (MCoA) B54a, which requires a Compliance Tracking Program that includes:

"(a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project and within two years of operation commencement".

The audit is limited to a primarily document review only. The implementation of the Operations Environment Management Plan and the associated sub plans will be assessed once operations have commenced.

1.1 PROJECT DESCRIPTION

AGL Energy Limited (AGL) is developing the Newcastle Gas Storage Facility in Tomago New South Wales to meet AGL's peak gas market requirements over winter and to provide additional security of gas supply during supply disruption events. New South Wales currently has no reliable gas storage capacity.

Construction of the Newcastle Gas Storage Facility by the main subcontractor, CB&I Constructers Pty Ltd (CB&I) included the gas storage facility site, access road and utility corridor and gas pipeline access corridor (the Project). Additional works by other contractors include construction of the gas pipeline to connect the existing Jemena Gate Station at Hexham with the gas storage facility (Lucas Engineering) and construction of the main power supply (PowerServe/Downer EDI).

1.2 AUDIT OBJECTIVE

The primary objectives for the pre-operations compliance audit included the following:

• to determine the extent that AGL and its subcontractors are in compliance with the relevant MCoA, SoC and DSEWPaC conditions as they relate to the pre-operations phase of the Project; and

• to make recommendations to address any non-compliances and improvements to the Operations Environment Management Plan (OEMP) and associated sub plans.

1.3 AUDIT SCOPE

The scope of works for the audit included:

- desktop review of the supporting documents to support compliance with the MCoA, SoC and the EPBC approval conditions; and
- review of the OEMP, and relevant supporting documents, to ascertain the
 extent to which the MCoA, SoC and EPBC approval requirements are
 addressed and identification of any improvements to further address
 these requirements.

1.4 AUDIT CRITERIA

The legislative requirements relevant to this audit are included within the following statutory instruments:

- DP&I, Ministers Conditions of Approval MP10_0133 issued 10 May 2012;
- Modification of Minister's Approval MP10_0133 issued 5 February 2013;
- Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011; and
- DSEWPaC Approval EPBC 2010/5752 issued 18 July 2012.

The assessment against these documents is focused on the requirements for the operations stage of the Project.

1.5 LIMITATIONS OF THIS REPORT

This disclaimer, together with any limitations specified in the report, applies to this report and its use.

This report was prepared in accordance with the contracted scope of services for the specific purpose stated and subject to the applicable cost, time and other constraints. In preparing this report, ERM relied on:

 a) client/third party information which was not verified by ERM except to the extent required by the scope of services, and ERM do not accept responsibility for omissions or inaccuracies in the client/third party information; and b) information taken at or under the particular times and conditions specified, and ERM do not accept responsibility for any subsequent changes.

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2 AUDIT METHODOLOGY

2.1 METHODOLOGY AND PROCESS

The audit process included the following primary tasks:

- desktop review of the following documents:
 - Operation Environmental Management Plan, Newcastle Gas Storage Facility (NGSF-WPCD-ECN-EN-PLN-0003) issued March 2015;
 - Air Quality Management Plan, Newcastle Gas Storage Facility (NGSF-WPCD-ECN-EN-PLN-0005) issued 12 March 2015;
 - Noise Management Plan, Newcastle Gas Storage Facility (NGSF-WPCD-ECN-EN-PLN-0004) issued March 2015;
 - Waste Management Plan (NGSF-WPCD-ECN-EN-PLN-0006) issued March 2015;
 - Operation Water Management Plan (DCS-GN-HSE-MP-016) issued April 2015;
 - Emergency Plan and Response Procedures (NGSF- AGL-NAS-OP-PLN-0002); and
 - Operational Traffic Management Measures.
- correspondence supporting compliance with the audit criteria documents;
- recommendations for improvements to the OEMP and Sub Plans to better reflect the MCoA requirements.
- preparation of draft audit report;
- response and action plan developed by AGL (refer *Annex D*); and
- preparation of final audit report.

2.2 CLASSIFICATION OF AUDIT FINDINGS

Findings resulting from an assessment of audit evidence were divided into four categories as follows:

- **Conformance (C)**: Adequate and appropriate implementation against audit requirements.
- Non-conformance Category 1 (NC-1): Failure to meet the requirements of the audit criteria in terms of legislative requirements, failure to achieve the management performance outcomes identified in documentation, or ineffective environmental management of the activity that represent an *immediate risk* to the environment or reputation of the company.
- Non-conformance Category 2 (NC-2): Failure to achieve the management performance outcomes identified in documentation, or ineffective environmental management of the development that does not represent an immediate risk to the environment. These will generally be associated with documentation, records or administrative requirements.
- **Improvement Opportunity (IO)**: A finding which does not strictly relate to the scope of the audit and which could lead to performance improvement.
- Not Applicable (NA): requirement was not applicable to project operations during the audit as requirement or control was not applicable to the activities underway at the time.

In addition to the above, the status of the item or approval condition is divided into the following categories:

- Open item has yet to be completed with actions continuing.
- **Closed** item has been completed and the audit criteria satisfied with no further actions outstanding.

3 AUDIT FINDINGS

3.1 COMPLIANCE ASSESSMENT

A compliance check of the MCoA, SoC and EPBC Approval conditions relevant to the operations phase of the Project was completed. Non-conformances and improvement opportunities for each legislative instrument reviewed are summarised in *Table 3.1*.

A full review and audit findings for the desk top review of the compliance of the OEMP and supporting sub plans with the MCoA, SoC and EPBC Approval conditions are under the following Annexures:

• DP&I, Ministers Conditions of Approval

Annex A

- Statement of Commitments from the Preferred Project Report *Annex B*
- DSEWPaC Approval EPBC

Annex C

 Table 3.1
 Summary of Non Conformances and Improvement Opportunities

Item No	Assessment Requirement	Comment	Audit Classification
Minister's Cond	litions of Approval MP10_0133		
A14	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may	Section 5.4 of the OEMP commits to quarterly audits of compliance against CoA and other approvals, licences and consents.	IO
		Section 6.2 of the OEMP commits to an audit within 12 months of commissioning and then every two years thereafter.	
		Align the frequency of internal auditing in Sections 5.4 and 6.2	
A15	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within seven days of becoming aware of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the	OEMP refers to Emergency Plan and Safety Management system (could not find reference). Section 4.2 lists Environmental Management Documents which includes reference to compliance tracking programme which includes need to report environmental incidents (timing not included).	Ю
	incident.	Consider adding in notification requirements into Section 5.5 of the OEMP to clarify reporting requirements for environmental incidents.	
C3	During operation, the Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:	Section 2.2 lists types and quantities of dangerous goods. Does not list relevant AS and appropriate measures required for the material under the AS.	IO
	(a) all relevant Australian Standards; and	Include the table of DGs with type, quantities, relevant AS and	
	(b) DECC's Environment Protection Manual Technical Bulletin - Bunding and Spill Management.	identification of appropriate measures required for the management of the material under that standard into the CEMP or appropriate support plan.	
	In the event of an inconsistency between the requirements listed from (a) to (b) above, the most stringent requirement shall prevail to the extent of the inconsistency		

Item No	Assessment Requirement	Comment	Audit Classification
C15	Prior to the commencement of operation of the project, the Proponent shall arrange for and implement a Flood Emergency Response Plan. The Plan shall be prepared by an independent, qualified flood engineer experienced in flood management. The Plan shall be updated and maintained where appropriate and include an education and awareness component for the workforce and detailed evacuation procedures to interface with the Bureau of Meteorology's flood warning system and the local State Emergency Services Plan (where appropriate) and to include provisions for any third parties likely to be involved Consideration shall include the full range of flood risks (including climate change associated risks), the proposed use of the site, site access constraints and local area evacuation routes to high ground.		IO
C23	To avoid any doubt, the Groundwater Management Plan and the Surface Water Management Plan required under condition B57 shall continue to be applied during operation.	OEMP has been developed to meet Approval Condition B25, B57(c) & (d) and C23. Developed in consultation with NOW, HWC and EPA. The groundwater monitoring bore GW15 is listed in the plan as being decommissioned, however it is understood that the temporary septic tank will remain in place in case of any future project works which require temporary offices. Consider removing from the monitoring list but leave the monitoring bore in place for any future use of the septic tank at this location.	IO
Statement of Co.	mmitments		
120	Trim vegetation where possible rather than removing it.	OEMP and supporting plans do not currently include commitment. Commitment to be added to OEMP	NC-2
135	Develop and implement comprehensive CEMP and OEMP. These documents will include detailed information about significant flora and fauna species, their management and on-going conservation recommendations.	Currently not included in the OEMP or sub plans. OEMP to be amended to include this commitment.	NC-2
160C	The CEMP and OEMP will include vegetation and weed management plans to prevent spread of weed species and ensure avoid disturbance on quality and functioning of sensitive ecological communities	Commitment currently not included in the OEMP. OEMP to be amended to include commitment	NC-2

Item No	Assessment Requirement	Comment	Audit Classification
168	Fencing around pipeline easements within Lot 105 will be in accordance PSC's Koala Plan of Management to ensure Koala movement beyond the	Fencing for Lot105 has been specified by WorleyParsons in detailed design work.	IO
	Project area	Consider including in the OEMP fencing requirement for the site in case of future works or where fencing needs replacement.	
		Permanent fencing four wire rural fence in project area.	
169	Speed limits along the access road and utility corridor will be in accordance with PSC's Koala Plan of Management to minimise injury or	Operations speed limit 50km/h. PSC states speed limit to be 40km/h – raised as NC during audit.	NC-1
	death to koalas and other wildlife	The PSC KPoM notes that "where appropriate" motor vehicle speeds to be restricted to 40 kph or less. In the context of the NGSF, it will have low traffic flows; excellent vision due to road alignment (straight) and the entry road and road verge are wide and well maintained. AGL considers a lower speed limit is not appropriate, nor warranted.	
		Review speed limits if koala activity is noted in the area or a near-hit/incident occurs with any fauna along the road.	
265	Noise emissions will be confirmed for equipment and infrastructure	Noise associated with high-flow gas flaring not include in current plan.	NC-2
	(including low frequency noise) during detailed design when final specifications are known. The potential for high-flow gas flaring at the gas plant site will be reviewed and noise assessment may be required to determine impacts of noise associated with high-flow gas flaring.	Include the need to monitor noise during a high-flow gas flaring event to determine impacts into the NMP.	
303	Monitoring of the Project emissions will be in accordance with current AGL practice. Emissions of pollutants are reported annually in the National Pollution Inventory (NPI).	Plan does not currently include requirement to report under NPI (Section 2). Currently enforced under <i>Protection of the Environment (General) Regulation</i> 2009.	NC-2
		Include the requirement to report under NPI in Section 2.	
310	Establish measureable greenhouse gas emission reduction targets.	OEMP does not include GHG reduction targets. Amend OEMP to include GHG reduction targets	NC-1

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Item No	Assessment Requirement Comment		Audit
315	Develop an emergency response plan that will coordinate procedures with the Tomago Aluminium Smelter, other adjacent industrial facilities and any local emergency planning groups, fire brigades, state and local police and appropriate government agencies. This plan will include: a) Procedures for notifying businesses, residents and recreational users within areas of potential hazard;	Section 5.7 includes flow chart for initial communications protocol. Other contacts table includes nearest neighbours with exception of Tomago Village Van Park. Consider including contact details of Tomago Village Van Park and any other business/residents that may be impacted by an incident.	Classification IO
344	AGL will continue to consult with all relevant agencies through the detailed design and operation phases of the Project.	Quarterly meetings of the NGSF Community Consultative Committee – includes representatives from PSC, NCC, HWC. Consider including in Section 5.3.3 any planned meetings with EPA and	IO
		NOW.	

4 CONCLUSION

A pre-operations audit against the DP&I MCoA, SoC and the DSEWPaC Approval was completed by reviewing the relevant documents to identify whether AGL and its contractors are meeting current requirements of the approval conditions relevant to the pre-operations phase of the AGL NGSF Project.

Overall, substantial conformance was achieved with the audit documents that were reviewed with the exception of seven non-conformances and eight improvement opportunities. The primary findings relate to administrative errors or omissions in the Operating Environment Management Plan and associated sub plans. An action response table has been developed addressing all audit findings and is included in *Annex D*. All actions have now been completed with the exception of two findings.

Further audits will be completed to assess the implementation of the OEMP and supporting plans once operations commence.

Annex A

Audit Table – Minister's Conditions of Approval MP10_0133

Table A1 Compliance Assessment - Minister's Conditions of Approval MP10_0133

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
TERMS	S OF APPROVAL				
PART	A - ADMINISTRATIVE CONDITIONS				
A1	The Proponent shall carry out the project generally in accordance with the: (a) Environmental Assessment; (b) Preferred Project Report; (c) Statement of Commitments; and(d) conditions of this approval. Note: the general layout of the project is shown in Appendix 1		Noted – internal audits to be completed to confirm compliance.	Open	
A2	If there is any inconsistency between the documents in condition A1, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency with the documents listed under condition A1.		Noted	Open	
A3	The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:(a) any reports, strategies, plans, programmes, reviews, audits or correspondence that are submitted in accordance with this approval; and(b) the implementation of any actions or measures contained in these documents		Noted	Open	
LIMIT	S OF APPROVAL				
A4	This project approval shall lapse five years after the date on which it is granted, unless any works the subject of this approval have physically commenced before that time.	Project approval date 10 May 2012 Notification letter to DP&I on 28 Aug 12	Notification letter issued to Anna Timbrell (DP&I) on 28 Aug 12 to advise that clearing has commenced on 27 Aug 12.	Compliance Closed	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
A5 STATU A8	The gas pipeline component for the project shall follow corridor option 2 as shown in Figure 1.2 – Conceptual Project Layout in the EA. To avoid any doubt, other corridor options shown in that figure are not approved. TORY REQUIREMENTS The Proponent shall ensure that all necessary licences,	Design EPBC Approval	Option 2 has been adopted EPBC Approval obtained (2010-	Status Compliance Closed Compliance	
	permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation of the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.	EPL Construction certificate issued 29 September 2012	5752) 18 July 2012 EPL20130 issued to CBI for chemical storage and petroleum and fuel production 10 July 2012 – to be transferred to AGL for operations phase 15 May 2015 Construction Certificate received Friday 29th September 2012. Copies of EPL and MCoA in site office (CB&I). Confirmation copies are kept within the NGSF permanent administration building to be completed.	Open	
	LIANCE		loui sa (d. omm. ii	C 1'	
A9	The Proponent shall ensure that employees, contractors and sub-contractors, and visitors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	Operation Environmental Management Plan, Newcastle Gas Storage Facility (NGSF-WPCD- ECN-EN-PLN-0003) issued March 2015	Section 5.2 of the OEMP commits to induction of all employees and contractors prior to commencing work on site.	Compliance Open	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
OBLIG	GATION TO MINIMISE HARM TO THE ENVIRONMEN	Т			
A14	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or rehabilitation of the project.	Operation Environmental Management Plan	Section 5.4 of the OEMP commits to quarterly audits of compliance against CoA and other approvals, licences and consents. Section 6.2 of the OEMP commits to an audit within 12 months of commissioning and then every two years thereafter.	IO Open	Align the frequency of internal auditing in Sections 5.4 and 6.2
INCID	ENT REPORTING				
A15	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within seven days of becoming aware of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	Operation Environmental Management Plan	OEMP refers to Emergency Plan and Safety Management system (could not find reference). Section 4.2 lists Environmental Management Documents which includes reference to compliance tracking programme which includes need to report environmental incidents (timing not included).	IO Open	IO – consider adding in notification requirements into Section 5.5 of the OEMP to clarify reporting requirements for environmental incidents.
A16	The Proponent shall meet the requirements of the Director-General to address the cause or impact of any incident, as it relates to this approval, reported in accordance with condition A15 of this approval, within such period as the Director-General may require.	NA	To be assessed during implementation	NA Open	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
PART (C - PRIOR TO AND DURING OPERATION				
BIODI	VERSITY				
C1	The Proponent shall design, install and maintain all fencing – other than operational site security fencing – in a manner that does not impede the passage of koalas or other native fauna	Site inspections	Fencing is three strand rural fencing or unfenced. Fencing around operational area is security fencing.	Compliance Closed	
Biodive	ersity Offset Package	I			
C2	The Proponent shall develop and implement a Biodiversity Offset Package in consultation with the OEH and Port Stephens Council, consistent with the Biodiversity Offset Strategy approved under condition B13 of this approval. The package shall be consistent with the Biobanking Methodology under the Biobanking and Offsets Scheme outlined in Biobanking Assessment Methodology and Credit Calculator Operational Manual (DECC, 2009). The Package shall result in the establishment of one or more offset sites to give effect to the requirements of the Biodiversity Offset Strategy, which shall be underpinned by a Plan of Management and an appropriate mechanism to ensure long-term conservation and financial security of the offset site(s). The Package shall be submitted for the approval of the Director- General at least one month prior to the commencement of operation of the project.	Biodiversity Offset Package AGL Newcastle Gas Storage Facility MP10_0133 Email from PSC (Les Seddon) 1 May 2015 Email to DP&I (Mike Young) 4 May 2015	Package identifies two potential sites near Medowie. A final version of the Conservation Agreement has been developed through consultation with OEH and PSC and the document is currently with OEH for approval and execution. Package submitted to DP& I 4 May 2015. Expected start of operations is mid-June 2015.	Compliance Open	Implementation to be checked Check of start of operations to be completed to confirm package was submitted one month prior to start of operations.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
HAZAI	RDS AND RISKS				
СЗ	During operation, the Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with: (a) all relevant Australian Standards; and (b) DECC's Environment Protection Manual Technical Bulletin – Bunding and Spill Management. In the event of an inconsistency between the requirements listed from (a) to (b) above, the most stringent requirement shall prevail to the extent of the inconsistency	Emergency Plan and Response Procedures (NGSF- AGL-NAS-OP- PLN-0002)	Section 2.2 lists types and quantities of dangerous goods. Does not list relevant AS and appropriate measures required for the material under the AS.	IO Open	Include the table of DGs with type, quantities, relevant AS and identification of appropriate measures required for the management of the material under that standard into the CEMP or appropriate support plan.
Operat	ional Hazards Studies				
C4	At least two months prior to commissioning the project, or as otherwise agreed by the Director-General, the Proponent shall prepare and submit the following plans for the approval of the Director-General: (a) A comprehensive Emergency Plan and detailed emergency procedures for the proposed project. This plan shall include consideration of the safety of all people outside of the project who may be at risk from the project. The plan shall be consistent with the Hazardous Industry Planning Advisory Paper No. 1 – Industry Emergency Planning Guideline (DoP, 2011); and	Emergency Plan and Response Procedures Email to DP&I (Anna Timbrell) 6 November 2014 Email from DP&I (Anna Timbrell) 30 January 2015	Safety Management System within ERP (Annex) Submitted 6 November and approved 30 January 2015May 2015	Closed	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
	(b) A document setting out a comprehensive Safety Management System, covering all onsite operations and associated transport activities involving hazardous materials. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept on-site and shall be available for inspection by the Director-General upon request. The Safety Management System shall be consistent with the Hazardous Industry Planning Advisory Paper No. 9 – Safety Management (DoP, 2011). Commissioning shall not commence until approval has been given by the Director-General.				
Pre-Sta	At least one month prior to the commencement of operation of the project, or as otherwise agreed by the Director-General, the Proponent shall submit to the Director-General, a report detailing compliance with conditions B16 and C4 of this approval, including: a) dates of study/plan/system submission, approval, commencement of construction and commissioning; b) actions taken or proposed, to implement recommendations made in the studies/plans/systems; and c) responses to each requirement that may be imposed by the Director-General under condition A3.	Pre-Start-Up Safety Compliance Report Newcastle Gas Storage Facility (NGSF-WPOE-ISBL-PM-REP-0018) Email to DP&I 20/04/2015	Email sending report to DP&I sighted – sent 20 April. Operations did not commence prior to 20/05/2015. Expected start of operations is mid-June 2015.	Compliance	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
Post-St	tartup Compliance Report				
C6	Within three months of the commencement of operation of the project, or as otherwise agreed by the Director-General, the Proponent shall submit to the Director-General, a report verifying that: a) the Emergency Plan required under condition C4 is effectively in place and that at least one emergency exercise has been conducted; and b) the Safety Management System required under condition C4 has been fully implemented and that records required by the system are being kept	NA	Operations to commence	NA Open	
C7	Within 12 months of the commencement of operation of the project and every three years thereafter, or at such intervals as the Director-General may agree, the Proponent shall carry out a comprehensive Hazard Audit of the project and within one month of each audit submit a report to the Director-General. The audits shall be carried out at the Proponent's expense by a qualified person or team, independent of the project, approved by the Director-General prior to commencement of each audit. Hazard Audits shall be consistent with Hazardous Industry Planning Advisory Paper No. 5 Hazard Audit Guidelines (DoP, 2011). Each audit report must be accompanied by a programme for the implementation of all recommendations made in the audit report. If the Proponent intends to defer the implementation of a recommendation, reasons must be documented.	NA	Operations to commence	NA Open	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
NOISE		L			
Operat	ional Noise Criteria				
C8	The Proponent shall design, construct, operate and maintain the project to ensure that the noise contribution from the project at each receiver location does not exceed the noise limits specified in Table C1. The receiver locations set out in Table C1 are those identified in Table 7.39 and Figure 7.29 of the EA. If noise from the project is substantially tonal, intermittent or impulsive in nature or contains major components within the low frequency range (as described in Chapter 4 of the NSW Industrial Noise Policy (EPA, 2000)), 5 dB(A) shall be added to the measured noise level when comparing the measured noise with the limits specified in Table C1, in accordance with the requirements of the NSW Industrial Noise Policy. The noise limits set out in Table C1 do not apply under: wind speeds greater than 3 m/s at 10 metres above ground level; or under stability category F temperature inversion conditions when wind speeds are greater than 2 m/s at 10 metres above ground level; or under stability category G temperature inversion conditions. Stability category temperature inversion conditions.	Operation Environmental Management Plan Noise Management Plan, Newcastle Gas Storage Facility (NGSF-WPCD-ECN-EN-PLN-0004) issued March 2015	Noise Management Plan and Monitoring programme included in Appendix B1.	Compliance Open	
	inversion conditions shall be determined by the sigma-theta method referred to in Part 4E of Appendix E of the NSW Industrial Noise Policy.				

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
	The meteorological data to be used for determining meteorological conditions shall be those recorded by monitoring station referred to under condition B37.				
C9	The Proponent shall develop and implement a Noise Monitoring Programme in consultation with and to meet the requirements of the OEH. The Programme shall aim to demonstrate compliance with the noise limits under condition C8 of this approval during operation of the project.	Noise Management Plan	Noise Management Plan includes monitoring programme. Section 3.2 sets out Noise Limits. Noise monitoring will be undertaken after 3 months (but within 12 months) of the plan being handed over to AGL control to determine whether compliance with the maximum allowable noise limits in Table 3-2 is being achieved. The results of this initial noise monitoring will determine whether noise mitigation measures and / or further noise monitoring is required.	Compliance Open	
AIR QU	LIALITY		1		
Odour	,		,	.	
C10	During operation, the Proponent shall ensure no offensive odour as defined under the Protection of the Environment Operations Act 1997 is emitted from the project site, which impacts on any sensitive receiver.	Air Quality Management Plan, Newcastle Gas Storage Facility (NGSF- WPCD-ECN-EN-PLN- 0005) issued 12 March 2015	Appendix A, Table A-1 lists requirement. There will not be any gas venting during shutdown other than in an emergency.	Compliance Open	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
Dust					
C11	The Proponent shall employ reasonable and feasible measures to ensure that the project is operated in a manner that minimises or prevents the emission of dust.	Air Quality Management Plan Site Inspections	Appendix A, Table A-2 lists requirement. The access road and internal roads are sealed to prevent generation of dust	Compliance Open	
Operat	ional Air Quality Data				
C12	The Proponent shall design, construct, operate and maintain the project to ensure that the discharge concentration limits specified in Table C2 are not exceeded at the nominated discharge point at the listed reference conditions. For the purpose of this condition, discharge locations are as identified in Figure 2.1 of Air Quality and Greenhouse Gas Assessment – Newcastle Gas Storage Facility (Coffey Natural Systems Pty Ltd, February 2011), provided as Appendix 14 to the EA.	Air Quality Management Plan	Section 5 of the AQMP indicates monitoring to be completed quarterly for first 12 months after commissioning. Monitoring will be undertaken at the two discharge points for analytes as per Table C2.	Compliance Open	
C13	For the purpose of demonstrating compliance with discharge limits specified under condition C12 of this approval, the Proponent shall monitor the pollutants listed in Table C3 at each of the discharge points listed under condition C12, and applying the sampling methods and units of measure specified. Monitoring shall be undertaken quarterly for the first year following commissioning, and thereafter as may be agreed by the OEH. Two consecutive non-detectable results may be the basis for discontinuation of monitoring of that particular pollutant at any time.	Air Quality Management Plan	Section 6 of the AQMP lists analytes required for testing as per C12	Compliance Open	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
SOILS,	WATER AND HYDROLOGY				
C14	Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997 during operation of the project.	OEMP - Appendix A12 Operation Water Management Plan	Monitoring program developed for operational phase of project. Table 4 lists environmental management activities and controls appropriate to scale of operations.	Compliance Open	
C15	Prior to the commencement of operation of the project, the Proponent shall arrange for and implement a Flood Emergency Response Plan. The Plan shall be prepared by an independent, qualified flood engineer experienced in flood management. The Plan shall be updated and maintained where appropriate and include an education and awareness component for the workforce and detailed evacuation procedures to interface with the Bureau of Meteorology's flood warning system and the local State Emergency Services Plan (where appropriate) and to include provisions for any third parties likely to be involved. The Plan shall include the following components: a) likely flood behaviour; b) flood warning systems; c) education awareness programmes; d) evacuation and evasion procedures; e) evacuation routes and flood refuges; f) flood preparedness and awareness procedures for staff and visitors; and	OEMP - Appendix A11 Emergency Response Plan (Incorporating Flood Emergency Response Plan as Appendix F)	Anne Lewis from Planager (PhD, Chemical Engineering and Bachelor of Engineering, Chemical Engineering), prepared the Flood Emergency Response Plan. a) Section F2 – flood characteristics b) Flood warning time c) The Flood Emergency Response Plan poster is to be printed at minimum A3 size, laminated and placed at strategic locations within the NGSF site. The poster briefly summarises the emergency response procedures of this Sub plan, including the site assembly point and flood evacuation route d) Flood evacuation routes e) Flood evacuation routes	IO Open	Indicate in main plan where climate change associated risks have been considered and addressed.

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
	g) means to minimise risk and damage to gas plant infrastructure. Consideration shall include the full range of flood risks (including climate change associated risks), the proposed use of the site, site access constraints and local area evacuation routes to high ground.		includes evacuation centres and figures of areas affected by different flood events f) Induction to be reviewed during operations. g) Plant is above 1:100 year event. Department of Environment, Climate Change and Water (2009), 'Draft Coastal Risk Management Guide; Incorporating Sea Level Rise Benchmarks in Coastal Risk Assessments referenced with Probable Maximum Flood (PMF), extreme event in the context of past studies of Lower Hunter River flooding only considered.		

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
TRAFF	TC AND TRANSPORT				
C16	Prior to the commencement of operation of the project, the Proponent shall commission a suitably qualified road infrastructure specialist to assess the condition of all public roads traversed by construction traffic associated with the project (including over-mass or over- dimensional vehicles) in consultation with Council and the RMS and taking into account the Pre- Construction Road Inspection Report prepared under the requirements of B32. Should the Pre- Operational Road Inspection Report identify any damage to roads attributable to construction traffic associated with the project, the Proponent shall repair the roads consistent with the recommendations of the report, within such time as agreed to with the relevant Council and the RMS and to meet the reasonable requirements of the relevant Council and the RMS. The Pre- Operation Road Inspection Report shall be submitted to the Director-General prior to the commencement of operation, clearly identifying recommendations made by relevant Councils and the RMS and how these have been addressed, to the satisfaction of the Director-General.	Dilapidation Close Out Report (High Pressure Pipeline) Lyle Marshall & Associates Pty Ltd issued April 2015 Property Condition Survey, AusDilaps issued March 2015 Email to RMS and PSC 29/04/2015 Email from PSC (John Gleeson) 07/05 2015 Email from RMS (David Howe) 06/05/2015 Email to DP&I 7 (Anna Timbrell) May 2015	Both reports indicate pavement distress/damage is not from project traffic. Email sighted sending reports to PSC and RMS for consultation Emails received from PSC and RMS accepting reports and agreeing project works did not impact roads. Both reports sent to DP&I	Closed	RFI for submission to DP&I

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
WASTI	MANAGEMENT				
C17	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site during operation, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.	OEMP - Appendix B3 Waste Management Plan (NGSF-WPCD-ECN-EN- PLN-0006) issued March 2015	Refer to Table A-1, Appendix A – includes requirement. Induction to include waste management – assessment of implementation to be made during operations	Compliance Open	
C18	The Proponent shall maximise the reuse and/or recycling of operation waste materials generated on site, to minimise the need for treatment or disposal of those materials outside the site.	Waste Management Plan	Refer to Table A-1, Appendix A Assessment of implementation to be made during operations	Compliance Open	
C19	The Proponent shall ensure that all liquid and/or non-liquid operation waste generated by the project is assessed and classified in accordance with the Waste Classification Guidelines (DECC 2008, or any future guideline that may supersede that document) and where removed from the site is only directed to a waste management facility lawfully permitted to accept those materials (unless otherwise permitted by an applicable Environment Protection Licence under the Protection of the Environment Operations Act	Waste Management Plan	Refer to Table A-3, Appendix A. Plan lists types of waste likely to be generated and appropriate classification.	Compliance Open	
C20	The Proponent must seek prior approval under the Local Government Act 1993 for the installation and operation of a human waste storage facility.	Waste Management Plan	Refer to Table A-4, Appendix A Wastewater and sewage will be removed from site by EPA licensed operator.	Compliance Open	

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
VISUA	L AMENITY				
C21	 The Proponent shall: a) take all reasonable and feasible measures to mitigate off-site lighting impacts from the operation of the project; and b) ensure that all external lighting associated with operation of the project complies with Australian Standard AS4282 - 1997 - Control of the Obtrusive Effects of Outdoor Lighting. This condition does not apply to lighting required for aviation safety. 	Site Inspections Operations Environment Management Plan	Measures such as reflectors and road markings have been included at the main gas plant site to reduce lighting requirements, and downward facing lights have been used on the site to reduce light spill	Compliance Open	
C22	The Proponent shall prepare and implement an Operation Environmental Management Plan (OEMP) for the project, in accordance with Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004) or its latest version. The Plan shall be prepared in consultation with Councils, NOW and HWC and include, but not necessarily be limited to: a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to the operation of the development, including all consents, licences, approvals and consultations;	Operations Environment Management Plan Letter to Hunter Water 24/03/2015 Letter to Newcastle City Council 24/03/2015 Letter to NOW 24/03/2015 Letter to PSC 24/03/2015 Email to DP&I (Miek Young) 16/04/2015	OEMP developed in consultation with NOW, NCC, PSC, HWC – letters provided. Email sending plan dated 16/04/2015. Operations did not commence prior to 16/05/2015 a) Section 2 b) Section 2.4 c) Section 5.1 lists responsibilities for staff on	Compliance Closed	
	b) specific consideration of relevant measures to address any requirements identified in the documents referred to under condition A1;	1041.6) 10) 01) 2010	site. As number of roles is limited an organisation chart is not required in this instance		

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
	c) a management organisational chart identifying the roles and responsibilities for all relevant employees involved in the operation of the project; d) overall environmental policies and principles to be applied to the operation of the project; e) management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval; f) standards and performance measures to be applied to the project, and means by which environmental performance can be periodically reviewed and improved (where appropriate), including what actions will be taken to address identified potential adverse environmental impacts. In particular, the following environmental performance issues shall be addressed in the Plan: (i) noise emissions, including measures for regular performance monitoring of noise generated by the project and measures to proactively respond to and deal with noise complaints; (ii) air quality impacts; (iii) operational traffic impacts, particularly during maintenance, and procedures to restore any damage attributable to the project during the operation phase; (iv) hazard and safety and emergency management measures, including measures		d) Appendix A of the OEMP includes AGL HSE Policy, and AGL Environmental Principles e) Policy includes requirement to meet requirements of legislation. General statement regarding resources minimisation also included (not compliant with ISO14001). Principles more detailed f) Section 6.2 – audits to be completed within 12 months and then every two years thereafter assessing compliance with compliance against conditions and standards i. NMP - noise to be monitored after 3 months of operations to confirm noise levels are within criteria ii. AQMP – stack emission to be monitored quarterly within first 12 months of operations iii. TMP (Appendix B4) – includes basic		

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
	to prevent and control bushfires; (v) groundwater management; and (vi) surface water management. g) procedures for the periodic review and update of the Operation Environmental Management Plan as necessary; and h) the environmental monitoring requirements outlined under this approval. The OEMP shall be submitted for the approval of the Director-General no later than one month prior to the commencement of operation of the project or within such lesser period as otherwise agreed by the Director-General. Operation activities shall not commence until written approval of the OEMP has been received from the Director-General.		management measures and includes requirement to complete dilapidation report prior to major maintenance events. iv. Emergency Response Plan and Safety Management System (Appendix A11) v. Operation Water Management Plan (Appendix A12) vi. Operation Water Management Plan (Appendix A12) g) Review is included in Section 7 and is at a minimum annually. Also completed if a major incident, changes in legislative instruments, when directed by DP&I. h) Section 6 – general. Specific monitoring of aspects included in sub plans.		

Item	Assessment Requirement	Reference/ Evidence	Comments	Compliance	Recommendations
				Status	
C23	To avoid any doubt, the Groundwater Management Plan and the Surface Water Management Plan required under condition B57 shall continue to be applied during operation.	OEMP Appendix A 12 - Operation Water Management Plan (DCS- GN-HSE-MP-016) issued April 2015	OWMP has been developed to meet Approval Condition B25, B57(c) & (d) and C23. Developed in consultation with NOW, HWC and EPA. Covers all requirements as per conditions.	IO Open	The groundwater monitoring bore GW15 is listed in the plan as being decommissioned, however it is understood that the temporary septic tank will remain in place in case of any future project works which require temporary offices. Consider removing from the monitoring list but leave the monitoring bore in place for any future use of the septic tank at this location.

Annex B

Audit Table - Statement of Commitments from the Preferred Project Report CR 6023_1-_v3

 Table B1
 Compliance Assessment - Statement of Commitments from the Preferred Project Report CR 6023_1-_v3

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
Cuilla au	d Lagha				
Spills an	The measures for preventing direct contamination of surface water include measures to prevent spills at the gas plant reaching groundwater.	Operation Water Management Plan	OWMP – Section 7.1 for large spills. Section 6.1 discusses management activities and controls for prevention of impacts to surface water. To be included in site inductions	Compliance Open	
7.3.4 Mo	 difications to Management and Mitigation Measures	 for Groundwater			
104	All water supplies for construction and operations will be sourced from an authorised and reliable supply.	Site Inspections	Water sourced from HWC metered standpipe to site.	Compliance Open	
7.4 Flora	and Fauna				
7.4.1 Flo	ra				
120	Trim vegetation where possible rather than removing it.	Site Inspections	ER site inspections confirm trees left along boundaries and trimmed where possible – refer inspection reports. OEMP and supporting plans do not currently include	NC-2 Open	Commitment to be added to OEMP
			commitment.		

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
Table 7.2	Avoidance and mitigation measures for flora and far	ına at Gas Plant			
135	Develop and implement comprehensive CEMP and OEMP. These documents will include detailed information about significant flora and fauna species, their management and on-going conservation recommendations.	OEMP and sub plans	Currently not included in the OEMP or sub plans	NC-2 Open	OEMP to be amended to include this commitment.
Table 7.3	3 Mitigation measures for TSC Act-related flora and fa				
156A	Worksite lighting will be kept to a minimum.	Site Inspection	Permanent infrastructure installed including downward facing lighting.	Compliance Open	
158	Explore implementing the following options: Use of passive means of lighting, such as installing reflector roadway markers, lines, warning or information signs and attaching reflectors to furnishings, Use solar-powered light emitting diode studs to highlight roadways and paths of travel, Use of directional lighting focussed only upon areas to be illuminated and not mounted higher than an appropriate height from grounds. This will assist in reducing visual impacts from light spill.	OEMP	The roads into the NGSF employ reflectors and roadway markers into and around the site. NGSF uses downward facing lights to reduce light spill. OEMP includes lighting requirements	Compliance Closed	
Table 7.3	The CEMP and OEMP will include vegetation and weed management plans to prevent spread of weed species and ensure avoid disturbance on quality and functioning of sensitive ecological communities		(Option 2) Commitment currently not included in the OEMP	NC-2 Open	OEMP to be amended to include commitment

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
Table 7.3	B Mitigation measures for TSC Act-related flora and fa	uuna at SEPP 44 Koala Habitat Pro	tection		
168	Fencing around pipeline easements within Lot 105 will be in accordance PSC's Koala Plan of Management to ensure Koala movement beyond the Project area	Site inspections OEMP	Fencing for Lot105 has been specified by WorleyParsons in detailed design work. Permanent fencing four wire rural fence in project area.	IO Open	Consider including in the OEMP fencing requirement for the site in case of future works/fencing needs replacement.
169	Speed limits along the access road and utility corridor will be in accordance with PSC's Koala Plan of Management to minimise injury or death to koalas and other wildlife	Site inspections OEMP	Operations speed limit 50km/h. PSC states speed limit to be 40km/h - raised as NC during audit. The PSC KPoM notes that "where appropriate" motor vehicle speeds to be restricted to 40 kph or less. In the context of the NGSF, it will have low traffic flows; excellent vision due to road alignment (straight) and the entry road and road verge are wide and well maintained. AGL considers a lower speed limit is not appropriate, nor warranted.	NC-1 Open	Review speed limits if koala activity is noted in the area or a near-hit/incident occurs with any fauna along the road.

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
Table 7.3	1 3 Mitigation measures for TSC Act-related flora and fa	ı ıuna at Groundwater dependent ecc	systems		
172	The implementation of management measures identified in groundwater assessment, including implementation of groundwater management plan and surface water management plan to avoid disturbance from water runoff and erosion, will avoid measurable impacts to groundwater quality, levels or flow and on GDEs.	OEMP - Operations Water Management Plan	Management measures include in Section 5.1 for minimising impacts to groundwater. Implementation of the OWMP to be checked once operations commences.	Compliance Open	
7.8 Socio	p-Economic Environment				
227	Meet the construction and operations noise goals of the Project to minimise disturbance to sensitive receptors.	Noise Management Plan	Noise Management Plan includes monitoring programme. Section 3.2 sets out Noise Limits. Noise monitoring will be undertaken after 3 months (but within 12 months) of the plan being handed over to AGL control to determine whether compliance with the maximum allowable noise limits in Table 3-2 is being achieved. The results of this initial noise monitoring will determine whether noise mitigation measures and / or further noise monitoring is required.	Compliance Open	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
7.8.5 So	cial Infrastructure				
234	Community consultation will be on-going during the life of the Project.	Community Engagement Plan (Document no: NGSF-AGL- NAS-PM-PLN-0002) issued November 2013	Section 4.7 details ongoing communication activities. Minutes of CCC Meetings are available on the Project website	Compliance Open	
241	Prior to operation of the Project, a safety management system will be implemented, which will include an emergency response plan.	Emergency Response Plan	Emergency Response Plan developed - to be implemented	Compliance Open	
7.10 Tra	ffic				
257	Operation traffic management controls will be implemented to ensure staff, contractor and public safety relating to vehicle transport. Safe driver conduct policies and standards will be applicable to all AGL staff and contractors. Other controls include:		Review of Traffic Management Measures indicates all commitments included – implementation to be checked during operations	Compliance Open	
	 Implement driver and pedestrian safety awareness programs, Review speed limits across the Project sites for all vehicles, Conduct a random alcohol and drug testing program. 				

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
7.11 Noi	se and Vibration				
7.11.1 N	oise				
264	A noise and vibration management plan will be prepared as part of the CEMP and OEMP to ensure noise levels are adequately controlled and any impacts managed. The traffic noise management plan will be prepared within the construction traffic management plan. It will be prepared in line with practices outlined in DECCW Interim Construction Noise Guideline 2009 and DECCW Environmental Criteria for Road Traffic Noise 1999 and in consultation with the Port Stephens Council, Newcastle City Council and OEH. The CEMP will be implemented by AGL and the construction contractors.	Noise Management Plan	Noise Management Plan developed as part of OEMP	Closed	
265	Noise emissions will be confirmed for equipment and infrastructure (including low frequency noise) during detailed design when final specifications are known. The potential for high-flow gas flaring at the gas plant site will be reviewed and noise assessment may be required to determine impacts of noise associated with high-flow gas flaring.	Noise Management Plan	Noise monitoring to be completed at sensitive receptors to confirm NGSF meets noise criteria. Noise associated with high-flow gas flaring not include in current plan	NC-2 Open	Include the need to monitor noise during a high-flow gas flaring event to determine impacts into the NMP.
266	Construction and operation activities will be undertaken with a focus on noise control at source, noise attenuation and in consultation with potentially affected receptors to minimise the risk of noise exceeding noise criteria and disturbing sensitive receptors. The following measures will be implemented (where practical) to manage impacts of noise and ensure Project goals are met:	Noise Management Plan	Table A-1, Appendix A	Compliance Open	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
275	Consult potential noise receptors about the nature of operations noise emissions and avoidance and mitigation practices to be adopted. Feedback and complaints will be recorded and addressed where practical.	Noise Management Plan	Table A-1, Appendix A mentions criteria. Implementation to be checked during operations.	Compliance Open	
276	Monitor noise levels during operations to ensure localised noise creep (increase in local ambient noise) is not occurring due to the Project.	Noise Management Plan	Noise monitoring to be completed after 3 months of operations to confirm noise levels.	Compliance Open	
7.11.3 M	onitoring				
286	Noise emissions during construction and operations to ensure equipment is meeting noise certification and criteria requirements and detect any faulty or damaged equipment.	Noise Management Plan	Section 5.1.2 - noise monitoring will also be undertaken at the gas plant site and the HRS to determine whether equipment and machinery is performing within expected noise limits.	Compliance Open	
288	Responding to community complaints in line with EPA license conditions.	Noise Management Plan Community Engagement Plan	Table A-1, Appendix A - feedback and complaints relating to noise are to be recorded and addressed. Record of contact form included in the Community Engagement Plan	Compliance Open	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
7.12 Air	Quality				
301	A monitoring program will be established to ensure regular (or continuous) monitoring of air emissions.	Air Quality Management Plan	OEMP includes monitoring plan - Section 5.1	Compliance Open	
302	The access road will be sealed during operations to prevent the generation of dust by vehicles using the road and to dirt being carried onto the TAC Northern Access Road or Old Punt Road where it could form dust.	Air Quality Management Plan	Main Access Road and internal roads sealed with bitumen.	Compliance Open	
303	Monitoring of the Project emissions will be in accordance with current AGL practice. Emissions of pollutants are reported annually in the National Pollution Inventory (NPI).	Air Quality Management Plan	OEMP includes monitoring plan – Section 5.1 Plan does not currently include requirement to report under NPI (Section 2). Currently enforced under Protection of the Environment (General) Regulation 2009	NC-2 Open	Include the requirement to report under NPI in Section 2.
304	Chemicals and analytes, including glycol, used across the Project for dehydration, rehydration and refrigeration will be monitored and modelled.	Operations Management Plan	Potential contamination impacts from Glycol were modelled in the project EA. Monitoring of glycol included in the OEMP – Section 6.1	Compliance Open	
305	Liaison will continue with OEH in relation to the licensing requirements for the Project under the POEO Act and the proposed draft conditions for the environmental protection licence.	Air Quality Management Plan	EPL to transfer from CBI to AGL	NA Open	
306	There will not be any gas venting during shutdown other than in an emergency.	Air Quality Management Plan	Table A-1, Appendix A	Compliance Open	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
7.13 Gree	enhouse Gas Emissions				
309	Implement the AGL Climate Change Policy which is incorporated through the Health, Safety and Environment Management System including greenhouse abatement initiatives will be adopted for the Project.	Operations Environment Management Plan	Included in AGL Environmental Principles - "consistent with business objectives and AGL's Greenhouse Gas Policy, AGL will work in consultation with its external stakeholders to improve greenhouse gas emission outcomes". One GHG initiative was the second Part 3A modification for the connection of the NGSF to Tomago Aluminium for the supply of "boil off" gas from the LNG storage tank. Alternatives to supplying gas to Tomago would have involved flaring or additional processing (energy consumption), which would have increased GHG emissions from the site.	Open Open	
310	Establish measureable greenhouse gas emission reduction targets.	Operations Environment Management Plan	OEMP does not include GHG reduction targets	NC-1 Open	OEMP to include GHG reduction targets
312	In accordance with the Commonwealth National Greenhouse and Energy Reporting Act 2007, AGL will be required to report on greenhouse gas emissions, energy production and energy consumption. Greenhouse gas emissions will be monitored and reviewed on an annual basis.	Air Quality Management Plan	Section 2 lists requirement to report under NGERs. Monitoring of emissions included in Section 5.	Compliance Open	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations				
7.14 Haz	14 Hazard and Risk								
7.14.1 R	isk Management								
314	Undertake an audit of the Safety (Health and Environment) Management System within twelve months of commissioning the gas plant. This audit will focus on the management of potential major hazards associated with the development and based on the DP&I Hazard Audit Guidelines.	Operations	To be completed 12 months after operations commenced	NA Open					
315	Develop an emergency response plan that will coordinate procedures with the Tomago Aluminium Smelter, other adjacent industrial facilities and any local emergency planning groups, fire brigades, state and local police and appropriate government agencies. This plan will include: b) Contacts with state and local emergency response agencies; c) Scalable procedures for the prompt notification of appropriate local official and emergency response agencies, based on the level and severity of potential incidents; d) Procedures for notifying businesses, residents and recreational users within areas of potential hazard; e) Evacuation routes/methods for residents, business and members of the public in the vicinity of the Project. Evacuation routes will include alternatives to the main access road; f) The locations of permanent sirens and other warning devices;	Emergency Response Plan Emergency Services Information Package	a) front of document b) Table 3 lists levels and types of emergencies as well as whether emergency services are required. Section 7 also includes reporting requirements. c) Section 5.7 includes flow chart for initial communications protocol. Other contacts table includes nearest neighbours with exception of Tomago Village Van Park. d) Section 10.1 refers to Emergency Services Information Package (ESIP) and is included as Part 1 of the ERP e) A number of beacons and hazard and fire horns are	IO Open	Consider including contact details of Tomago Village Van Park and any other business/residents that may be impacted by an incident.				

Item	Commitment	Reference	Comments	Compliance	Recommendations
				Status	
	g) Appointment of an emergency coordinator(s) to be available on site at all times; h) Plans for initial and continued training of plant operators and local responders, along with provisions for periodic emergency response drills by emergency personnel, emergency response agencies and federal, state and local officials.		located throughout the NGSF. The three hazard and fire horns are located at the: 1. Administration building; 2. Heater shelter, and 3. LNG tank top. f) Contacts at start of plan includes role of Emergency Commander who is a full time staff member (Process Engineer). g) ERP refers to Section 9.2 which includes initial training and then through emergency simulations and direct review of the document. Simulated emergencies section to be developed		
316	Undertake a security assessment to ensure arrangements are acceptable for the gas plant site as per the current requirements for critical infrastructure in NSW and under the NSW Regulations for Major Hazards Facilities.	Pre-Start-Up Safety Compliance Report (NGSF-WPOE-ISBL-PM- REP-0018) issued 30 December 2014	Preliminary Hazard Analysis completed as part of EA. Security assessment has been undertaken and included in the Safety Case	Compliance Closed	
7.14.3 M	odifications to Management and Mitigation Measures	for Hazard and Risk	<u>'</u>		
340	Advise the Office of Airspace Regulation of the expected start date of the operation of the facility six months prior to commencement of operation.	Email to CASA (Anna Henry) 16 December 2014	Expected operations commencement is approximately mid June 2015. Notification was six months prior to expected start of	Compliance Closed	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
			operations.		
343	AGL will provide 'as constructed' drawings and details to RAAF.	Letter	2-Jul-14: As built details of the tank were provided to CASA and RAAF.	Compliance Closed	
344	AGL will continue to consult with all relevant agencies through the detailed design and operation phases of the Project.	OEMP - Section 5.3.3	Quarterly meetings of the NGSF Community Consultative Committee – includes representatives from PSC, NCC, HWC.	IO Open	Consider including in Section 5.3.3 any planned meetings with EPA and NOW.
345	An emergency plan will be prepared to comply with clause 174ZC of the Occupational Health and Safety Regulations 2001 (NSW). The emergency response plan will be compiled in accordance with DP&I guidance note HIPAP 1, Emergency Planning.	Emergency Plan and Response Procedures (NGSF- AGL-NAS- OP-PLN-0002)	Section 10 of the ERP states Emergency Services Information Package developed in accordance with HIPAP. Plan has been developed in accordance with Work Health and Safety Regulation 2011 which supersedes Occupational Health and Safety Regulations 2001	Compliance Closed	
346	The proposed emergency traffic arrangements will be reviewed and assessed to ensure compliance with the stated Emergency Vehicle Access Policy No.4.	OEMP - Operational Traffic Measures Table 1 Interview - AGL Project Environment Manager	Table 1 states requirement that adequate emergency vehicle access is available at all times. Review of other components indicates design requirements only including minimum width of roads (6m), turning requirements and ramp	Compliance Closed	

Item	Commitment	Reference	Comments	Compliance Status	Recommendations
			design.		
347	Compliance with the regulations applicable to major hazard facilities and will continue to consult with WorkCover in order to obtain details of its requirements for inclusion in the site risk assessment and safety report.	Correspondence to WorkCover 20 August 2014	20-Aug-14: Safety Case submitted to WorkCover for review.	Compliance Closed	
348	AGL will prepare and submit the safety report to WorkCover six months prior to commissioning.	Correspondence to/from WorkCover	Meeting held with WorkCover on 18-April-2012. NGSF determined as a Major Hazard Facility by WorkCover in letter dated 19-Oct-2012. 15-Feb-13: Safety Case outline submitted to WorkCover. 10-May-13: Revision 1 of Safety Case Outline submitted to WorkCover 20-Aug-14: Safety Case submitted to WorkCover for review.	Compliance Closed	

Annex C

Audit Table – DSEWPaC Approval EPBC 2010/5752

 Table C.1
 Compliance Assessment - DSEWPaC Approval EPBC 2010/5752

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
APPRO	VAL CONDITIONS				
1	To minimise the risk of construction and operational activities leading to the offsite movement of sediments or contaminants that could adversely affect the Kooragang Nature Reserve (now Hunter Wetlands National Park) wetland of international importance, the person taking the action must implement Conditions B20 to B26 inclusive (dealing with Soils, Water and Hydrology), and B56 (dealing with a Construction Environmental Management Plan), imposed under the New South Wales Planning Assessment Commission conditions of approval dated 10 May 2012 for Application Number MP10_0133 under the NSW Environmental Planning & Assessment Act 1979	All	CBI Lucas Engineering Downer EDI PowerServe AGL	Compliance Open	Refer assessment of compliance against MCoA B20 – B26 and B56
2	To minimise adverse impacts during construction on listed threatened species and ecological communities, and in particular the New Holland Mouse (Pseudomys novaehollandiae), and Earp's Gum (Eucalyptus parramattensis subsp. decadens), the person taking the action must implement Conditions B 56 (dealing with a Construction Environmental Management Plan), imposed under the New South Wales Planning Assessment Commission conditions of approval dated 10 May 2012 for Application Number. MP10_0133.	Pre-clearing Construction	CBI AGL	Compliance Open	Refer assessment of compliance against MCoA B56

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
4	To offset the loss of approximately four (4) individuals of Earp's Gum (Eucalyptus parramattensis subsp. decadens) and approximately 15ha of potential habitat for the New Holland Mouse (Pseudomys novaehollandiae), the person taking the action must implement Condition C2 (dealing with a Biodiversity Offset Package), imposed under the New South Wales Planning Assessment Commission conditions of approval dated 10 May 2012 for Application Number MP10_0133.	Pre-commissioning Pre-clearing	CBI AGL	Compliance Open Compliance	Refer to assessment of compliance against MCoA C2 Offset Report and Offset Package
	B13 and C2 imposed under the New South Wales Planning Assessment Commission conditions of approval dated 10 May Page 2 of 3 2012 for Application Number MP10_0133, must provide for the permanent offsite protection of at least 25ha of optimal habitat for the New Holland Mouse (Pseudomys novaehollandiae) and permanent offsite protection of at least 60 individual Earp's Gum (Eucalyptus parramattensis subsp. decadens) trees.	Pre commissioning		Open	60 Earp's gums to be established in Hunter Botanic Gardens in an area of 2.9 ha New Holland Mouse - the offset sites provide permanent protection of at least 25 ha of preferred habitat and approximately 80 ha of sub-optimal habitat, which may become more suitable for this species with appropriate fire management as outlined in the Conservation Agreements for the offset sites. The development of the Gas Storage facility removed approximately 12 ha of sub-optimal habitat for this species.
5	Within 10 days after the commencement of the action, the person taking the action must advise the Department in writing of the actual date of commencement.	Commencement of Construction	AGL	Compliance Closed	Department was notified by AGL in writing – letter dated 27 August 2012. This was the commencement date of the project and is therefore within 10 days as required.

Item	Assessment Requirement	Stage/timing	Responsibility	Compliance Status	Reference/ Comment
6	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to these conditions of approval, including measures taken to implement management plans required as part of the approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.		AGL CBI	Compliance Open	Document Control is included in Section 4.5 of the CEMP. All full audit reports completed to date are on the project website accessible to Department if required.
7	Within 3 months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with the conditions of this approval over the previous 12 months, including implementation of any management plans as specified in the conditions. Noncompliance with any of the conditions of this approval must be reported to the Department at the same time as the compliance report is published.	anniversary of commencement	AGL	Compliance Open	Letters to Department included on project website: Returns dated 27 November 2013 and 17 July 2014 which is within period as required (commencement of construction – 27 August 2012)

Annex D

AGL Audit Response and Action Tables

Table D.1 AGL Audit Response and Action Table - Pre-Operations Audit

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Due Date
Minister's Co	onditions of Approval MP10_0133				
A14	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the	Section 5.4 of the OEMP commits to quarterly audits of compliance against CoA and other approvals, licences and consents.	IO	Revised Table 5-2. Reference to quarterly audits and fortnightly project meetings deleted.	Completed
	construction, operation or rehabilitation of the project.	Section 6.2 of the OEMP commits to an audit within 12 months of commissioning and then every two years thereafter.			
		Align the frequency of internal auditing in Sections 5.4 and 6.2			
A15	The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident. Within seven days of becoming aware of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	OEMP refers to Emergency Plan and Safety Management system (could not find reference). Section 4.2 lists Environmental Management Documents which includes reference to compliance tracking programme which includes need to report environmental incidents (timing not included). Consider adding in notification requirements into Section 5.5 of the OEMP to clarify reporting requirements for environmental incidents.	IO	Incident, as defined in the conditions of approval, is one that causes or has the potential to cause material environmental harm. Due to the similar wording as the POEO Act triggers, the OEMP has been revised to include a section on incidents with a reference to AGL MyHSE system and the Pollution Incident Response Management Plan (PIRMP). Previous section referring to safety and environment management plan in the OEMP has been deleted. NGSF PIRMP has also been updated to include DoPE on the notification list.	Completed

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Due Date
C3	During operation, the Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:	Section 2.2 lists types and quantities of dangerous goods. Does not list relevant AS and appropriate measures required for the material under the AS.	Ю	Waiting to hear back from owner's engineer and CB&I.	ASAP
	 (a) all relevant Australian Standards; and (b) DECC's Environment Protection Manual Technical Bulletin - Bunding and Spill Management. In the event of an inconsistency between the requirements listed from (a) to (b) above, the most stringent requirement shall prevail to the extent of the inconsistency 	Include the table of DGs with type, quantities, relevant AS and identification of appropriate measures required for the management of the material under that standard into the CEMP or appropriate support plan.			
C15	Prior to the commencement of operation of the project, the Proponent shall arrange for and implement a Flood Emergency Response Plan. The Plan shall be prepared by an independent, qualified flood engineer experienced in flood management. The Plan shall be updated and maintained where appropriate and include an education and awareness component for the workforce and detailed evacuation procedures to interface with the Bureau of Meteorology's flood warning system and the local State Emergency Services Plan (where appropriate) and to include provisions for any third parties likely to be involved. Consideration shall include the full range of flood risks (including climate change associated risks), the proposed use of the site, site access constraints and local area evacuation routes to high ground.	Department of Environment, Climate Change and Water (2009), 'Draft Coastal Risk Management Guide; Incorporating Sea Level Rise Benchmarks in Coastal Risk Assessments referenced with Probable Maximum Flood (PMF), extreme event in the context of past studies of Lower Hunter River flooding only considered. Indicate in main plan where climate change associated risks have been considered and addressed.	IO	According to the Flood Emergency Response Plan, the NGSF has been constructed to a level higher than 6.0 mAHD, which provides at least 1.5 metres freeboard above the peak 100 year ARI flood level of 4.5 mAHD shown in Appendix F Figure 2. According to the DECCW document referenced, sea level rise is projected to be 0.4m by 2050 and 0.9m by 2100. Therefore, the design of the plant has incorporated climate change allowing for a greater freeboard than currently advocated as what should be allowed for.	Completed

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Due Date
C23	To avoid any doubt, the Groundwater Management Plan and the Surface Water Management Plan required under condition B57 shall continue to be applied during	OEMP has been developed to meet Approval Condition B25, B57(c) & (d) and C23. Developed in consultation with NOW, HWC and EPA.	Ю	Monitoring bore is to be de-listed as a monitoring point, but will stay in place.	Completed
	operation.	The groundwater monitoring bore GW15 is listed in the plan as being decommissioned, however it is understood that the temporary septic tank will remain in place in case of any future project works which require temporary offices. Consider removing from the monitoring list but leave the monitoring bore in place for any future use of the septic tank at this location.			
Statement of	Commitments				
120	Trim vegetation where possible rather than removing it.	OEMP and supporting plans do not currently include commitment. Commitment to be added to OEMP	NC-2	The commitment made to the trimming of trees was made in the context of construction related activities (refer to Section 9.4.1 of EA under sub—heading "Construction", reference is also made in section 7.5.4, but again construction related).	Completed
				As the facility has been constructed removal of trees will only occur as part of maintenance for the asset protection zones around the site and clearance requirements for powerlines and gas pipelines. In which case removal of re-growth will be unavoidable.	
				Management of vegetation on site has been further explained in a new "Flora and Fauna Management Plan" attached to the OEMP.	

Item No	Assessment Requirement	Comment	Audit Classification	Response/Action	Due Date
135	Develop and implement comprehensive CEMP and OEMP. These documents will include detailed information about significant flora and fauna species, their management and on-going conservation recommendations.	Currently not included in the OEMP or sub plans. OEMP to be amended to include this commitment.	NC-2	Addressed in new Flora and Fauna Management Plan	Completed
160C	The CEMP and OEMP will include vegetation and weed management plans to prevent spread of weed species and ensure avoid disturbance on quality and functioning of sensitive ecological communities	Commitment currently not included in the OEMP. OEMP to be amended to include commitment	NC-2	Addressed in new Flora and Fauna Management Plan	Completed
168	Fencing around pipeline easements within Lot 105 will be in accordance PSC's Koala Plan of	Fencing for Lot105 has been specified by WorleyParsons in detailed design work.	IO	Addressed in new Flora and Fauna Management Plan	Completed
	Management to ensure Koala movement beyond the Project area	Permanent fencing four wire rural fence in project area. Consider including in the OEMP fencing requirement for the site in case of future works/fencing needs replacement.			
169	Speed limits along the access road and utility corridor will be in accordance with PSC's Koala Plan of Management to minimise injury	Operations speed limit 50km/h. PSC states speed limit to be 40km/h - raised as NC during audit.	NC-1	No additional action required. No Koalas have been sighted and no incidents have occurred involving	Completed
	or death to koalas and other wildlife	The PSC KPoM notes that "where appropriate" motor vehicle speeds to be restricted to 40 kph or less. In the context of the NGSF, it will have low traffic flows; excellent vision due to road alignment (straight) and the entry road and road verge are wide and well maintained. AGL considers a lower speed limit is not appropriate, nor warranted.		Koalas. Additionally, this has also been addressed in new Flora and Fauna Management Plan	
		Consider reviewing speed limits if koala activity is noted in the area or a near-hit/incident occurs with any fauna along the road.			

Due Date

ASAP

Completed

Completed

Completed

Completed