



# Newcastle Gas Storage Facility

**)th Quarterly Audit  
(Lucas Engineering)  
December 2013**

AGL Energy Limited

February 2014

0169504final

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AGL Energy Limited

Newcastle Gas Storage  
Facility

*5<sup>th</sup> Quarterly Audit  
(Lucas Engineering)  
December 2013*

February 2014

Reference: 0169504

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# Newcastle Gas Storage Facility

5th Quarterly Audit (Lucas Engineering) – December 2013

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0169504 5th Quarter Audit Report Final

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## EXECUTIVE SUMMARY

*Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform a quarterly audit (fifth) for the Newcastle Gas Storage Facility (NGSF) on behalf of AGL Energy Limited (AGL). The audit scope includes the construction of the gas pipeline to connect the existing Jemena Gate Station at Hexham with the Gas Storage Facility by the subcontractor Lucas Engineering Pty Ltd (Lucas Engineering). The primary purpose of the audit was to satisfy the Department of Planning and Infrastructure (DP&I) Ministers' Conditions of Approval (MCoA) B54(a) that 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 the implementation of the following plans:*

- Soil Management Plan;*
- Surface Water Management Plan;*
- Acid Sulphate Soil Management Plan;*
- Cultural Heritage Management Plan; and*
- Dangerous Goods Management Plan.*

*The Contractor has established the control systems generally required for a project of this nature, and all staff interviewed demonstrated an understanding of requirements and a commitment to the application of the management systems.*

*Overall, a high standard of compliance was achieved with the audit documents that were reviewed, with three non-conformances and six improvement opportunities identified for review and action by AGL and its contractors.*

## ABBREVIATIONS AND GLOSSARY

<b>Term</b>	<b>Description</b>
AGL	AGL Energy Limited
ASSMP	Acid Sulfate Soil Management Plan
CEMP	Construction Environment Management Plan
CHMP	Cultural Heritage Management Plan
DGMP	Dangerous Goods Management Plan
DP&I	Department of Planning and Infrastructure
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities
EPBC	Environment Protection and Biodiversity Conservation Act 1999
ERM	Environmental Resources Management Australia Pty Ltd
ERP	Emergency Response Plan
HDD	Horizontal Directional Drilling
MCoA	Ministers Conditions of Approval
MEIP	Miscellaneous Environmental Impacts
PowerServe	PowerServe Pty Ltd
NGSF	Newcastle Gas Storage Facility (the 'Project')
SMP	Soil Management Plan
SoC	Statement of Commitments
SWMP	Surface Water Management Sub Plan



## INTRODUCTION

Environmental Resources Management Australia Pty Ltd (ERM) was commissioned to perform quarterly audits 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) B54(a) 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".*

Section 2.3 of the Compliance Tracking Program (Rev 1 issued 22/08/2012) commits to 3 monthly audits undertaken by the Project Environmental Representative to satisfy MCoA B54(b):

*"a programme of independent environmental auditing will be carried-out in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing".*

This audit is the fifth quarterly audit completed for the Project; however, this report represents the first audit report for works completed by the sub-contractor, Lucas Engineering Pty Ltd (Lucas Engineering) and covers the period 19 November 2013, when works commenced, to 12 December 2013.

### 1.1

#### PROJECT DESCRIPTION

AGL Energy Limited (AGL) is developing the NGSF at 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.

Works to be completed by Lucas Engineering includes construction of the gas pipeline to connect the existing Jemena Gate Station to the NGSF. Additional works by other contractors include electrical supply to the NGSF as well as construction of the NGSF. Separate audits and associated reports are produced for each of the sub-contractors associated with these works.

## 1.2 *AUDIT OBJECTIVE*

The primary objectives for the 5<sup>th</sup> quarterly compliance audit for the construction of the gas pipeline included the following:

- to verify the implementation of the following plans:
  - Soil Management Sub Plan;
  - Surface Water Management Sub Plan;
  - Acid Sulphate Soil Management Sub Plan
  - Cultural Heritage Management Sub Plan; and
  - Dangerous Goods Management Plan
- to identify the areas for potential improvement for environmental management; and
- provide advice as to whether any amendments to sub plans are required.

This audit represents a snapshot of performance on the days of the audit.

## 1.3 *AUDIT SCOPE*

The audit scope is limited to the activities that have been undertaken at the site during the audit period and includes the following:

- formation of Horizontal Directional Drilling (HDD) Pad and associated works at Hexham Receiving Station site; and
- installation of erosion and sediment controls around the work area.

## 1.4 *AUDIT CRITERIA*

The audit covered the following specifications and standards, with a particular focus on activities associated with the current stages of construction. The documents relevant to this audit included:

- 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;



- the following sub plans of the Construction Environment Management Plan (Doc Number 10371-EV-03-0001, Rev B issued 10/09/2013);
- Soil Management Sub Plan (Doc Number 10371-EV-03-0007), Rev B issued 11 September 2013;
- Surface Water Management Sub Plan (Doc Number 10371-EV-03-0003), Rev B issued 10 September 2013;
- Acid Sulphate Soil Management Sub Plan (Doc Number 10371-EV-03-0008), Rev B issued 10 September 2013;
- Cultural Heritage Management Sub Plan (Doc Number 10371-EV-03-0004), Rev B issued 10 September 2013; and
- Dangerous Goods and Hazardous Materials Management Sub Plan (Doc Number 10371-EV-03-0005), Rev B issued 11 September 2013.

## 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
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*2.1 METHODOLOGY AND PROCESS*

The audit comprised a site inspection, interviews with key personnel and review of records and other related documentation on 12 December 2013. The audit process included the following primary components:

- development of a Terms of Reference developed which included:
  - audit scope and objectives;
  - date and location of audit;
  - members of audit team;
  - list of people audited; and
  - list of reference documents and audit criteria.
- opening meeting was held on 12 December 2013 at the site office to confirm audit objectives and scope. Attendees included:
  - Megan McLachlan (ERM Auditor);
  - Ray King (IDM Project Manager);
  - Dean Englebrechts (Lucas Engineering Project Engineer);
  - Terry Gardner (Lucas Engineering Drilling Superintendent);
  - Terry Hooper (Lucas Engineering Safety Manager); and
  - Craig Clarke (AGL Environment Manager).
- a site inspection was undertaken on 12 December 2013;
- any identified gaps/issues were documented and followed up with site personnel and additional information was requested as required;
- a closeout meeting was held on 12 December 2013 to discuss initial findings and recommendations. Attendees included:
  - Megan McLachlan (ERM Auditor);
  - Ray King (IDM Project Manager);
  - Dean Englebrechts (Lucas Engineering Project Engineer);
  - Terry Gardner (Lucas Engineering Drilling Superintendent);

- Terry Hooper (Lucas Engineering Safety Manager); and
- Craig Clarke (AGL Environment Manager).
- preparation of draft audit report;
- response and action plan developed by Lucas Engineering and AGL (refer *Annex F*); 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; and
- **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.

## 3.1

## ASSESSMENT OF CEMP SUB PLAN IMPLEMENTATION

A compliance check of the MCoA and SoC conditions (field component) was completed against the commitments made in the targeted sub plans for the site. Non-conformances and improvement opportunities for each sub plan reviewed are summarised in *Table 3.1*.

A full review and audit findings for implementation of each Sub Plan are under the following Annexures:

- Soil Management Plan *Annex A*
- Surface Water Management Plan *Annex B*
- Acid Sulphate Soil Management Plan *Annex C*
- Cultural Heritage Management Plan *Annex D*
- Dangerous Goods Management Plan *Annex E*

**Table 3.1 Summary of Non Conformances and Improvement Opportunities**

Item No	Assessment Requirement	Comment	Audit Classification
<i>DP&amp;I, Ministers Conditions of Approval MP10_0133 issued 10 May 2012</i>			
B21	Erosion and Sediment controls consistent with Managing Urban Stormwater: Soils and Construction Manual (Landcom, 2004, or its latest version) shall be installed prior to the commencement of soil disturbing works and shall be maintained until such time as the disturbed areas have been rehabilitated.	Hexham site - sediment fence installed around one drilling mud collection pit. East portion of site heavily disturbed. Consider the installation of additional erosion and sediment controls along eastern and north eastern Hexham site boundary to protect drainage lines.	IO
<i>Statement of Commitments</i>			
5	Provide workforce inductions and training to ensure personnel have knowledge of the correct use of refuelling systems and chemical handling procedures.	Toolbox does include refuelling procedure. Inductions include spill response procedure.  Consider the development of a SWMS for refuelling with staff to sign on to confirm training received and that procedure will be followed.	IO
10 & 23	Regularly inspect hazardous material containment facilities to ensure their integrity.	Anecdotally these inspections are completed twice daily by Safety Manager. Formal documentation of these checks is not currently completed. Formal inspections to be completed by JBS Environmental. Consider the addition of daily check currently completed onto current documentation.	NC-2
24 & 25 61 to 64	Inspecting and maintaining erosion and sedimentation control structures.  Undertake daily inspections of all runoff, erosion and sediment control structures during the construction period  Ensure silt fences are in a vertical position and securely fixed and remove sediment or residue behind sediment control barriers.  Monitor earthwork areas regularly for signs of erosion.	To be completed by JBS Environmental commencing week starting 16 December 2013. Informal checks completed by staff during day. Formal inspections to be completed by JBS Environmental. Consider the addition of daily check onto current documentation.	NC-2
56	Install sediment capture devices, such as silt fences and bunding, down-slope of exposed soils and soil stockpiles.	Refer to MCoA B21 comments	IO
85	When wastewater is tankered: The system will have a telemetered level sensor that alarms when over range; The tank will be included on the regular site inspection and reporting program.	Portable toilet block located on site. High level alarm not currently installed on system. Visual checks completed daily but not recorded. It is recommended an alarm is fitted to the tank to prevent overflows. Also consider the addition of a check of tank levels and ensure taps are off daily prior to leaving site	NC-1

Item No	Assessment Requirement	Comment	Audit Classification
223	Regular monitoring of implementation of Aboriginal cultural heritage procedures, including the CHMP and relevant legislation will be conducted to ensure that they are followed by staff and contractors.	Weekly check indicated in plan. JBS scheduled to complete weekly inspections commencing 16 December 2013	NC-2
<i>Additional Plan Commitments (Acid Sulfate Soil)</i>			
S6.1	Daily visual inspections of the construction site will be undertaken to identify actual or potential ASS concerns.	No excavations completed to date of audit, however there is no formal check of PASS/ASS once excavation commences. Consider the addition of formal visual check during excavations to existing daily checklists.	IO
<i>Additional Plan Commitments (Soil Management Plan)</i>			
S6.2	Where temporary or permanent constructions pads are proposed, the following steps should be undertaken:  c. Install a silt fence on the down-slope side of the work area and at least 50% of the sides adjacent to the down-slop edge of the work area.	Refer to MCoA B21 - Sediment fence not installed along east boundary behind drilling mud collection pits at Hexham construction pad site.  Fence installed along north drainage line.  Consider the installation of additional erosion and sediment controls behind Hexham Receiving Station.	IO

## CONCLUSION

A quarterly audit to review the implementation of the following management plans was completed:

- Soil Management Sub Plan;
- Surface Water Management Sub Plan;
- Acid Sulphate Soil Management Sub Plan
- Cultural Heritage Management Sub Plan; and
- Dangerous Goods Management Plan

Overall, a high standard of compliance was achieved with the audit documents that were reviewed, with three non-conformances and six improvement opportunities identified for review and action by AGL and its contractors. Lucas Engineering has prepared an audit response and action table to address all findings of the audit (refer *Annex F*).



Annex A

## Audit Table - Soil Management Plan

Table A1 Compliance Assessment - Implementation of the Soil Management Plan - Lucas Engineering

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>DoPI, Ministers Conditions of Approval MP10_0133 issued 10 May 2012</b>					
Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with Section 120 of the <i>Protection of the Environment Operations Act 1997</i> during construction of the project.	B20	Site Inspection Interview - Project Engineer	No discharges to surface water or groundwater during audit period	NA	
Erosion and Sediment controls consistent with Managing Urban Stormwater: Soils and Construction Manual (Landcom, 2004, or its latest version) shall be installed prior to the commencement of soil disturbing works and shall be maintained until such time as the disturbed areas have been rehabilitated.	B21	Site Inspection	Sediment fencing installed along Gas Access Track.  Sediment fence not installed along east boundary behind drilling mud collection pits at Hexham site.	IO	Consider the installation of additional erosion and sediment controls behind Hexham Receiving Station.
The Proponent shall carry out rehabilitation of disturbed areas progressively, and as soon as reasonably practicable following disturbance.	B22	Site Inspection	Hexham area to be revegetated with grass and resurfaced.  Construction commenced 19 November 2013 - ongoing	NA	
<b>Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011</b>					
Include a spill response plan in the emergency response plan and ensure that there is adequate spill response equipment stored onsite. Personnel will be trained on the emergency response plan and correct use of the spill response equipment.	SoC 1	Emergency Response Plan (ERP)  Tool box records  Induction slide pack	Spill response plan included in the following documents:  <ul style="list-style-type: none"> <li>• ERP in Section 7 of Incident Management Plan (Doc#10371-HS-03-0003).</li> <li>• Section 7 of Ground Water Management Plan (GWMP);</li> </ul>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
			<ul style="list-style-type: none"> <li>Section 7 and Figure 4 of Surface Water Management Plan (SWMP); and</li> <li>Appendix A of the Dangerous Goods and Hazardous Materials Management plan (DG&amp; HMMP).</li> </ul> <p>Spill response kits noted around site during inspection.</p> <p>Induction includes section on spill response.</p> <p>Toolbox 01/12/2013 discussing oil leaks.</p>		
Ensure concrete mixers and pump trucks are washed on bunded hardstand areas so that no waste enters the environment.	SoC 2	Site Inspection Interview – Project Engineer	Pad to be installed at Hexham on hardstand area at rear of site.	C	
Provide workforce inductions and training to ensure personnel have knowledge of the correct use of refuelling systems and chemical handling procedures.	SoC 5	Site Inspection Interview – Project Engineer Induction Slide Pack	<p>Staff refuel fuel tanks for generators.</p> <p>Toolbox included refuelling with under filling of tanks encouraged.</p> <p>No refuelling procedure currently in place.</p>	IO	Consider the development of a SWMS for refuelling with staff to sign on to confirm training received and that procedure will be followed.
Restrict vehicle movements to sealed or dedicated areas and roadways, as far as practical.	SoC 6	Site Inspection Interview – Project Engineer	Access to site works via sealed/formed roads	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Ensure drainage around vehicle and equipment servicing areas, workshops and chemical storage areas is directed to sumps.	SoC 7	Site Inspection Interview – Project Engineer	No vehicle or equipment servicing done on site	NA	
Use licensed contractors to collect, transport and dispose of hazardous materials such as waste solvents, paints, mercury absorption medium and hydrocarbons to a licensed off-site facility in accordance with EPA guidelines.	SoC 8	Site Inspection Interview – Project Engineer Transpacific Waste Tracking Certificate	Drilling mud main waste material produced; collected by Transpacific – dockets collected with dockets sighted.  JBS Environmental will be testing cuttings weekly to confirm waste classification (commencing 16 December 2013)	C	
Remove wastewater and sewage from site by an EPA licensed operator for treatment at an EPA-approved wastewater treatment facility.	SoC 9	Site Inspection Interview – Project Engineer	No sewage collected as yet – to be collected by Transpacific which is licensed to transport wastewater (EPL 6833).	C	
Regularly inspect hazardous material containment facilities to ensure their integrity.	SoC 10	Site Inspection Interview – Project Engineer	Anecdotally these inspections are completed twice daily by Safety Manager. Formal documentation of these checks is not currently completed.  Weekly checks have not commenced with JBS Environmental appointed to complete checks week starting 16 December 2013.	IO	Formal inspections to be completed by JBS Environmental. Consider the addition of daily check currently completed onto current documentation.

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Perform an assessment (in accordance with the SEPP 55 and NEPM 1999) to confirm the contaminant type, concentrations and extent of contamination in the event of unearthing historically contaminated soil. Action will then be undertaken in accordance with relevant EPA requirements and land use criteria to either remediate the impacted area or remove the contaminants.	SoC 12	Site Inspection Interview – Project Engineer Coffey report – 14/11/2013	Report completed for area near Forgacs site suspected of containing asbestos. Representative samples were tested (3) for asbestos which were all negative for asbestos. Material classed as solid waste, however will be treated as potentially contaminated and will be taken to appropriately licensed landfill – dockets to be collected.	C	
Include inductions to construction personnel that outline measures on how to deal with suspected contaminated soil.	SoC 14	Site Inspection Interview – Project Engineer Induction Slide Pack	Included in induction	C	
Inspecting and maintaining erosion and sedimentation control structures.	SoC 24	Site Inspection Interview – Project Engineer	To be completed by JBS Environmental commencing week starting 16 December 2013. Informal checks completed by staff during day.	NC-2	Formal inspections to be completed by JBS Environmental. Consider the addition of daily check onto current documentation.
Inspecting and monitoring of works to ensure soil erosion or contamination is not occurring.	SoC 25	Site Inspection Interview – Project Engineer	To be completed by JBS Environmental commencing week starting 16 December 2013. Informal checks completed by staff during day.	NC-2	Formal inspections to be completed by JBS Environmental. Consider the addition of daily check onto current documentation.
Restrict construction traffic movement to formed access tracks to avoid excess disturbance to soil and creation of bare areas where practicable.	SoC 46	Site Inspection Interview – Project Engineer	Access to site works via sealed/formed roads	C	Duplicate with SoC6

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Minimise duration of subsoil (including stockpiles) exposure to weather.	SoC 48	Site Inspection Interview – Project Engineer	Trenching will be limited to gas access track and small area on Old Punt Road (south). Duration of subsoil exposure expected to be limited to less than 24 hours.  No excavation of material during audit period.	NA	
Secure disturbed bare soils by re-spreading topsoil, revegetating or applying a geo-fabric (or similar), as soon as practicable after reinstatement of earthworks.	SoC 49	Site Inspection Interview – Project Engineer	Commenced works on 19 November 2013. Rehabilitation to be completed	NA	
Revegetate exposed soils as soon as possible to reduce potential for sediment-laden runoff.	SoC 50	Site Inspection Interview – Project Engineer	Commenced works on 19 November 2013. Rehabilitation to be completed	NA	
Provide wind-breaks (or equivalent control measures) around exposed areas and stockpiles to prevent wind erosion.	SoC 51	Site Inspection Interview – Project Engineer	Stockpiles from trenching works planned storage time of <24hrs. No trenching works completed during audit period	NA	
Place soil stockpiles upslope of excavations and not in drainage lines.	SoC 52	Site Inspection Interview – Project Engineer	No excavation works completed during audit period	NA	
Install sediment capture devices, such as silt fences and bunding, down-slope of exposed soils and soil stockpiles.	SoC 56	Site Inspection Interview – Project Engineer	Refer to MCoA B21	Refer to MCoA B21	Refer to MCoA B21

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Construct suitably lined sediment control ponds down-slope of construction work areas upfront. These will subsequently be developed into permanent wetlands during the operations stage.	SoC 57	Site Inspection Interview - Project Engineer	Construction work areas cover small footprint for this stage of works. Primary disturbance during audit period observed at Hexham site - primarily hardstand area.	NA	
Treat construction tracks to minimise surface degradation, e.g., compaction or topping with gravel.	SoC 58	Site Inspection Interview - Project Engineer	Construction during audit period limited to Hexham site - formed/sealed roads on site used for access.	NA	
Stabilise the banks of any disturbed watercourses adjacent to Old Punt Road using measures such as rock rip-rap, diversion berms, sediment fences, jute matting and reseeded.	SoC 59	Site Inspection Interview - Project Engineer	Watercourse on Old Punt rd. will be under bored to prevent disturbance	NA	
Divert runoff upstream of disturbed areas to existing drainage lines to prevent the risk of increasing erosion and requiring further sediment control measures.	SoC 60	Site Inspection Interview - Project Engineer	Hexham site up gradient from surrounding drainage lines. Trenching works have not been completed during audit period.	NA	
Undertake daily inspections of all runoff, erosion and sediment control structures during the construction period.	SoC 61	Site Inspection Interview - Project Engineer, Project Manager	Informal checks completed by staff during day. Weekly checks to be completed by JBS Environmental commencing week starting 16 December 2013.	IO	Consider the addition of daily check onto current documentation.
Maintain runoff, erosion and sediment control structures according to appropriate standards.	SoC 62	Site Inspection Interview - Project Engineer	Informal checks completed by staff during day. Weekly checks to be completed by JBS Environmental commencing week starting 16 December 2013.	IO	Consider the addition of daily check onto current documentation.



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Ensure silt fences are in a vertical position and securely fixed and remove sediment or residue behind sediment control barriers.	SoC 63	Site Inspection Interview – Project Engineer	Informal checks completed by staff during day. Weekly checks to be completed by JBS Environmental commencing week starting 16 December 2013.	IO	Consider the addition of daily check onto current documentation.
Monitor earthwork areas regularly for signs of erosion.	SoC 64	Site Inspection Interview – Project Engineer	Informal checks completed by staff during day. Weekly checks to be completed by JBS Environmental commencing week starting 16 December 2013.	IO	Consider the addition of daily check onto current documentation.
When wastewater is tankered, the system will have a telemetered level sensor that alarms when over range; The tank will be included on the regular site inspection and reporting program.	SoC 85	Site Inspection Interview – Project Engineer	High level alarm not currently installed on system.  Visual checks completed daily but not recorded.	NC-1	Consider the installation of a high level alarm in the sewage system.  Include check on existing documentation.
<b>Additional Management Plan Commitments</b>					
<i>Existing Environment</i>					
One non-compliant sample returned level of benzo(a)pyrene and PAHs in excess of the limit for service station sites in NSW. The report notes:  It is considered that the majority of the fill is suitable for re-use as trench backfill material. Soil trenched from the vicinity of test pit TP202 matching the description of Soil Unit 1B, should be stockpiled separately and reassessed for suitability as trench backfill.	Section 3.1.3	Site Inspection	Plan is now to under bore area of suspected contamination.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Management Measures</b>					
Ordinarily stockpiles shall have a maximum height of 3m and be battered to a maximum slope of 2(H):1(V). However, stockpiles of topsoil (which are likely to contain a viable seedbank) are to have a maximum height of 1 m to maximise viability of the seedbank for rehabilitation purposes. In the event of likely significant movement of material from the stockpile due to rainfall or wind, additional containment measures (i.e. covering of stockpiles) shall be implemented as directed by the HSE Advisor.	Section 6.2	Site Inspection	Small earthen embankments located at rear of Hexham site to contain excess drilling mud. Height approximately 0.5m. No other stockpiles noted during inspection	C	
The batters of completed embankments shall be less than 3(H):1(V). Immediately following completion of earthworks, batters shall be stabilised and disturbed areas shall be re-vegetated in accordance with Chapter 7 of Managing Urban Stormwater – Soils and Construction (NSW Department of Housing, 2004).	Section 6.2	Site Inspection	Small earthen embankments located at rear of Hexham site to contain excess drilling mud. Batter slope less than 3(H):1(V). No other embankments noted during inspection	C	
Silt fences as appropriate shall be installed when required in order to minimise sediment movement. They shall be installed around the down-slope perimeter of stockpiles or disturbed areas where potential for significant sediment migration is identified by HSE Advisor and in accordance with Chapter 6.3.7 of Managing Urban Stormwater – Soils and Construction (NSW Department	Section 6.2	Site Inspection	Silt fences installed meet SMP requirements.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>of Housing, 2004) as follows:</p> <p>a. Silt fences for low energy flows when filtering is the main aim; or</p> <p>b. Silt fences shall:</p> <p>i. Be of Silfence2000 or equivalent;</p> <p>ii. Be no more than 0.6m high;</p> <p>iii. Be securely attached (i.e. by staples or plastic or wire ties) to support stakes (i.e. wooden stakes or star pickets) placed no more than 3m apart, driven into the ground or until firmly embedded;</p> <p>iv. Extend 0.15m below ground surface via excavation of a narrow trench which is backfilled after placement of the filter fabric;</p> <p>v. Comprise a continuous roll where practicable. When joins are necessary, the filter fabric shall be spliced, or connected with plastic or wire ties or clips, with a minimum 0.15m overlap and securely fastened at both ends to posts; and</p> <p>vi. Be removed when no longer required.</p>					
<p>Excavations will be backfilled, compacted; topsoil replaced, and revegetated as soon as practicable. Re-vegetation will be restricted to grasses that can be maintained consistent with the ongoing inspection and maintenance requirements of the pipeline.</p>	Section 6.2	Site Inspection	No excavation works completed during audit period	NA	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Where temporary or permanent constructions pads are proposed, the following steps should be undertaken:</p> <p>a. Reduce or temporarily cease civil earthworks activities during periods of strong winds to prevent dust generation and loss of soil.</p> <p>b. Construct a diversion drain up-slope from any cut batters to intercept surface run-off and direct it to safe disposal points;</p> <p>c. Install a silt fence on the down-slope side of the work area and at least 50% of the sides adjacent to the down-slop edge of the work area;</p> <p>d. Topsoil should be progressively stripped from areas to be disturbed and stockpiled separately from other excavated material;</p> <p>e. Where acid sulphate soils are encountered these soils will be managed according to the acid sulphate soil management plan;</p> <p>f. Form cut and fill batters with a grade no steeper than 3(H):1(V); and</p> <p>g. Progressively re-instate excavated material once activities associated with the pad have been completed.</p>	Section 6.2	Site Inspection	<p>Sediment fence not installed along east boundary behind drilling mud collection pits at Hexham construction pad site.</p> <p>Fence installed along north drainage line.</p> <p>No excavation or trenching works completed during audit period.</p>	IO	Consider the installation of additional erosion and sediment controls behind Hexham Receiving Station.

Annex B

## Audit Table - Surface Water Management Plan

**Table B1 Compliance Assessment -Implementation of the Surface Water Management Plan - Lucas Engineering**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>DoPI, Ministers Conditions of Approval MP10_0133 issued 10 May 2012</b>					
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.	A15	Interview - Project Engineer	No incidents have been reported during audit period	NA	
<p>During construction, the Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:</p> <p>(a) all relevant Australian Standards; and</p> <p>(b) DECC's Environment Protection Manual Technical Bulletin - Bunding and Spill Management.</p> <p>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.</p>	B15	<p>Site Inspection</p> <p>Manifest</p> <p>Interview - Safety Manager</p>	<p>Small quantities of material are stored at the Hexham site in shipping containers. Primarily bentonite is stored underneath building on pallets.</p> <p>Bulk fuel tanks are to AS1940</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
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 construction, 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.	B41	Site Inspection Waste data form J1997722	Check of one load collected form Transpacific on 11/12/2013 confirms waste tracking number issued. Transpacific EPL #6822. Destination for waste TTS Kooragang Island on Raven St which is licensed to accept the waste.  Bins noted around site for waste.	C	
<b>Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011</b>					
Inspecting and monitoring hazardous material containment facilities to ensure their integrity.	SoC 23	Site Inspection Interview – Safety Manager, Project Engineer	Anecdotally these inspections are completed twice daily by Safety Manager. Formal documentation of these checks is not currently completed.  Weekly checks have not commenced with JBS Environmental appointed to complete checks week starting 16 December 2013	IO	Formal inspections to be completed by JBS Environmental.  Consider the addition of daily check currently completed onto current documentation as evidence of inspections being completed.
Minimise water use.	33	Site Inspection	Primary use of water is through drilling. Water is treated and recirculated whilst drilling to minimise water use.  Toilets have dual flush fitted.	C	



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Source water from existing water supply infrastructure. Until the permanent water supply is available, it is currently proposed that this will be supplied to construction sites by either water tankers or from a standpipe such as a HWC metered standpipe along Old Punt Road.	34	Site Inspection	Potable and mains water used on site. At pad location HDD2, hydrant is located nearby. Permission to use standpipe from HWC to be applied for water to be supplied to HDD1. Water will be delivered by truck.	C	
Develop hydrostatic test management measures in consultation with HWC and NSW Office of Water (NOW). The management measures will address:  Hydrostatic test water supply. This is likely to be potable water from existing HWC water supply infrastructure, untreated water from HWC Pump Station 20 bores, groundwater locally abstracted from new bores or a combination of these.  Assessment of potential changes to groundwater levels if groundwater is abstracted from existing HWC and new AGL bores.	35	Site Inspections, SWMSP.	Hydrostatic water plan in draft (to be approved).  JBS will test prior water quality prior to release/management	NA	
Transport amenities wastewater offsite by a licensed operator to a licensed disposal facility.	36	Interview - Project Engineer	Not completed as at date of audit. Transpacific will be removing wastewater (EPL #6822)	NA	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Test and treat water generated by dewatering of trenches or excavations if required, and infiltrate back into the groundwater table at designated infiltration areas, or alternatively transport offsite to a licensed disposal facility.	37	Interview - Project Engineer Site Inspection Letter from NOW (dated 13/11/13)	Water in trenches will be infiltrated back into the groundwater.  Letter sighted from NOW which allows 3ML allowance before requiring licence.	C	
Divert runoff from outside the work area to existing drainage lines to prevent the formation of new surface flow paths.	38	Site Inspection	Hexham pad is slightly higher than existing drainage lines under normal weather conditions	NA	
Restrict vehicle movements to formed access roads and sealed roads to avoid surface compaction where practicable.	40	Site Inspection	All work areas for this stage of works is accessed via sealed/formed roads.	C	
Monitor the potential for flooding by observing weather reports and river levels during potential flood events.	41	Site Inspection	Included in plan - Hexham area is prone to flooding during extreme rainfall events.	C	
Store equipment securely when not in use to prevent it being washed away in a flood.	42	Site Inspection	Equipment is primarily stored in shipping containers. Bentonite stored on wooden pallets beneath building.	C	
Avoid unnecessary clearing of vegetation and excavation works.	43	Site Inspection Interview - Project Engineer	Clearing of vegetation at end of gas access track near Old Punt Rd. No other clearing to be completed. Most of the project will be using under bore technique to minimise clearing of vegetation and trenching.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Ensure that the banks of watercourses are not disturbed during construction.	87	Site Inspection Interview - Project Engineer	Underboring will be used in all watercourse areas.	NA	
Minimise groundwater use	91	Site Inspection Interview - Project Engineer	Will dewater trenches and infiltrate back to groundwater if required.	NA	
<b>Additional Management Plan Commitments</b>					
<i>Training and Awareness</i>					
Examples of topics that may be covered during project induction and toolboxes include:  <input type="checkbox"/> Spill response; <input type="checkbox"/> Correct storage locations; and <input type="checkbox"/> Location of material safety data sheets.	Section 4.2	Induction slide pack  Toolbox Talks 23/11, 01/12, 04/12, 12/12	Induction includes spill response. Toolbox talks to date have included silt fence erection, oil leaks, correct storage of chemicals (not to be in drink containers), use of SLAMs.	C	
<i>Monitoring and Review</i>					
All oils, potentially hazardous liquids and chemicals will be stored in bunded areas. They will also be covered and isolated from storm water run-off and on pallets or trays where possible.	Table 5-1 (Point 2)	Site Inspection	Confirmed materials are stored appropriately	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Spill kits will be supplied and maintained on site where chemicals are stored or used. Spills will be contained immediately.	Table 5-1 (Point 3)	Site Inspection	Spill kits noted on Hexham site - adequate materials inside containers inspected.	C	
All storage areas for hazardous materials will be located an adequate distance away from watercourses and entry points to the storm water system. Spillages will be contained and collected for disposal	Table 5-1 (Point 4)	Site Inspection	Minor quantities stored in shipping containers. Hexham site is bounded on each side by drainage lines. Containers are located a practicable distance from the site boundary	C	
Potentially hazardous and contaminating activities including major equipment maintenance /servicing, wash down of construction plant and concrete washout to be conducted in bunded areas away from watercourses and other environmentally sensitive areas.	Table 5-1 (Point 7)	Site Inspection Interview - Project Manager	All servicing of equipment is done off site apart from minor repairs. Washdown of the rig occurs every shift with water washed back into the mud system for reuse. Wash-downs are done on a hard stand area.	C	
Minimise the volume of hazardous chemicals stored on site.	Table 5-1 (Point 8)	Site Inspection Interview - Safety Manager Manifest	Quantities are recorded in manifest confirming minor quantities of chemicals kept in site	C	

Annex C

## Audit Table - Acid Sulfate Soil Management Plan

**Table C.1 Compliance Assessment - Implementation of the Acid Sulfate Soil Management Plan - Lucas Engineering**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>DoPI, Ministers Conditions of Approval MP10_0133 issued 10 May 2012</b>					
<p>As part of the Construction Environmental Management Plan required under condition B56 of this approval, the Proponent shall prepare and implement the following:</p> <p>A detailed Acid Sulfate Soil Management Plan prepared in consultation with DPI (Aquatic Habitat Protection Unit), and NOW prior to any construction activity in areas mapped as Potential Acid Sulfate Soils or Actual Acid Sulfate Soils. The plan shall include reference to the water quality monitoring programme contained in the Groundwater and Surface Water Management Plans. The plan shall be prepared in accordance with the Acid Sulfate Soils Manual (ASSMC, 1998). As part of the plan, a Contingency Plan to deal with the unexpected discovery of actual or potential acid sulfate soils shall be prepared in consultation with NOW</p>	B57 (g)	ASSMP	<p>Refer this plan - developed using CBI plan as base which was prepared in consultation with DPI and NOW.</p> <p>Email with CBI ASSMSP attached sent to DPI 22 March 2012, response received from DPI 28 March 2012 accepting plan.</p> <p>ASSMP includes contingency plan - material suspected of being ASS should be stockpiled separately and advice from a suitably qualified environmental consultant should be sought.</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011</b>					
Minimise disturbance and exposure of ASS.	SoC 17	Site Inspection ASS Risk Map Interview - Project Engineer	Site is low risk with exception of some areas of Old Punt Rd (south) and gas access track near Pacific Highway. Excavations did not occur in these areas during the audit period.  Primary method of pipe laying will be via underboring. Trenches will be left open no longer than 24 hrs.	NA	
Store excavated ASS in conditions that simulate its natural state, or treat and store away from water bodies and drainage lines.	SoC 18	ASSMP Interview - Project Manager	Refer Table 5-1 in ASSMP. No excavation during audit period.	NA	
Treat excavated ASS using agricultural lime with machinery sufficient to perform adequate mixing, where practicable.	SoC 19	ASSMP Interview - Project Manager	Refer Table 5-1 in ASSMP. No excavation during audit period.	NA	
Bund areas where ASS is exposed to prevent leachate entering the wider environment.	SoC 20	ASSMP Interview - Project Manager	Refer Table 5-1 in ASSMP - A treatment pad is required in general accordance with Figure 4, page 24 of Queensland ASS Technical Manual (shown in Figure 4).  No excavation during audit period	NA	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Undertake any potential ASS remediation works in accordance with the Port Stephens Council LEP (Port Stephens Council, 2000), the Port Stephens Council ASS Policy, 2004 and the Acid Sulfate Soils Manual (ASSMAC, 1998).	SoC 22	ASSMP Interview - Project Manager	Methodology in Table 5-1 meets requirements.	NA	
Monitoring soil quality around project works prior to and during construction to ascertain the presence of contaminated soil or acid sulfate soils.	SoC 26	ASSMP Interview - Project Manager	Refer Section 5.1.1 of ASSMP	NA	
Store PASS capable of producing leachate within lined bunds.	SoC 29	ASSMP Interview - Project Manager	Refer Table 5-1 in ASSMP.	NA	
Ensure that the banks of watercourses are not disturbed during construction.	SoC 30	ASSMP Interview - Project Manager	Horizontal Directional Drilling to be used under all watercourses.	NA	Refer SoC 59 and SoC 87
<b>Additional Management Plan Commitments</b>					
<b><i>Implementation of Controls</i></b>					
A field screening test using hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ) should be performed regularly on excavated soils in areas where ASS or PASS is anticipated, or on suspect soils. The peroxide screening test should be undertaken based on Appendix I of the Acid Sulphate Soils Assessment Guidelines (Ahern et al, 1998a). Soils that record a pH of below 4, following oxidation with H <sub>2</sub> O <sub>2</sub> , should be managed as acid sulphate soils.	Section 5.1.1	ASSMP Interview - Project Manager	JBS Environmental to complete weekly during any excavation works. No excavating undertaken during audit period.	NA	



Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Based on the results of pH monitoring, visual assessment and field screening, selected soils samples (at a minimum rate of 10% of screened samples) will be sent for laboratory analysis using the chromium reducible suite (SCr) method to confirm the peroxide screening test results to confirm the required liming rate	Section 5.1.1	ASSMP Interview - Project Manager	JBS Environmental to complete monitoring as required. No excavating undertaken during audit period.	NA	
Temporary stockpiling of untreated ASS should not exceed 5 days (for fine textured soils). Medium term stockpiles should not exceed 28 days (for fine textured soils) with provision for collection of leachate and run-off water.	Section 5.1.2	ASSMP Interview - Project Manager	Trenching expected to be left open for less than 24hrs minimising formation of acid drainage. Stockpile timeframes included in Table 5-1 of ASSMP.	NA	
ASS and/or PASS can be placed directly back within the trench, with no treatment, within four days of excavation provided there is no evidence of oxidation. To assess if oxidation has occurred the stockpile should be visually assessed for jarosite staining, and field pH testing carried out.	Section 5.1.2	ASSMP Interview - Project Manager	JBS Environmental to complete monitoring as required. No excavating undertaken during audit period.	NA	
The treatment pad should be located at least 40m from a permanent waterway or creek and if possible placed in a topographically high area Stockpiled soil should be spread in thin (<200mm) layers on impervious pads within the boundary of the site works.	Section 5.1.2	ASSMP Interview - Project Manager	Included in plan - to be implemented.	NA	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<i>Monitoring and Review</i>					
Daily visual inspections of the construction site will be undertaken to identify actual or potential ASS concerns.	Section 6.1	Interview - Project Engineer	No excavations completed to date of audit, however there is no formal check of PASS/ASS once excavation commences.	IO	Consider the addition of formal visual check during excavations to existing daily checklists.
Documented weekly environmental inspections of the construction site will also be undertaken using a weekly environmental inspection checklist. The weekly checklist includes a section on ASS.	Section 6.1	Weekly Inspection Checklist	JBS to commence inspections 16 December 2013. No excavations during audit period.	NA	

Annex D

## Audit Table - Cultural Heritage Management Plan

**Table D.1 Compliance Assessment – Implementation of the Cultural Heritage Management Plan**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>DoPI, Ministers Conditions of Approval MP10_0133 issued 10 May 2012</b>					
<p>The Proponent shall employ a suitably-qualified archaeologist to attend site clearing and vegetation removal works within the gas storage facility site and within riparian areas of the Hunter River, and any activities with the potential to directly or indirectly impact on subsurface heritage items. The archaeologist shall be employed for the purpose of identifying and advising on potential Aboriginal heritage impacts, including appropriate mitigation and management, as required under these conditions of approval. Items of heritage significance that may be uncovered during construction of the project shall be managed in accordance with the approved Cultural Heritage Management Plan under condition B57.</p>	B38	Interview – Project Manager	<p>No site clearing or disturbance works with exception of main site location which is located in previously disturbed subsoil.</p> <p>Trenching works will require observation by Aboriginal groups (listed in Section 5.3 of the CHMSP).</p>	NA	
<p>Registered Aboriginal stakeholders shall be invited to attend site clearing and soil disturbance work to assist in the identification of heritage items, including potential mitigation and management measures.</p>	B39	Interview – Project Engineer	<p>No site clearing or disturbance works with exception of some parts for trenching along Gas Access Track and Old Punt Rd.</p>	NA	
<p>As part of the Construction Environmental Management Plan required under condition B56 of this approval, the Proponent shall prepare and implement the following:</p>	B57 (b)	Interview – Project Manager	<p>Plan has appropriated CBI plan which was developed in consultation with local Aboriginal stakeholders</p>	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Cultural Heritage Management Plan, developed in consultation with registered local Aboriginal stakeholders, to outline mitigation and management strategies for items of heritage significance that may be uncovered during construction of the project					
<b>Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011</b>					
Maintain an Aboriginal cultural heritage site register	218	Interview - Project Engineer CHMP	If artefacts are found will be added to register developed by CBI.	C	
Record all Aboriginal cultural heritage sites within proximity of the Project area in the CEMP.  The CHMP will detail the procedure to be followed in the event that Aboriginal cultural heritage sites, objects and/or remains are unearthed during construction based on obligations under the NSW NPW Act. This will include ceasing all work within an area if Aboriginal sites are identified during construction, preventing further access to the area and informing the OEH Environment Line, relevant Aboriginal stakeholders and a qualified archaeologist.	221	Interview - Project Engineer CHMP	CHMP includes procedures to be followed and stipulates ceasing of works, preventing further access and informing EPA and aboriginal stakeholders.	C	
Train all employees and contractors as part of the induction process in the procedures to be followed in the event that Aboriginal cultural heritage sites, objects and/or remains are unearthed.	220	Interview - Project Manager Induction slide pack	Induction covers topic.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<p>Prepare a Cultural Heritage Management Plan (CHMP) in consultation with Aboriginal Stakeholders prior to construction for incorporation into the CEMP. The CHMSP will address:</p> <ul style="list-style-type: none"> <li>• The impact mitigation and management requirements for Aboriginal and historic heritage.</li> <li>• Details of any additional archaeological investigations to be undertaken and any associated licences or approvals required.</li> <li>• Procedures to be implemented if previously unidentified Aboriginal or historic objects are discovered during construction.</li> <li>• Procedures if human remains are found.</li> <li>• An education program for construction personnel on their obligations for Aboriginal cultural materials and historic items.</li> </ul>	221	CHMP	CHMP meets requirements. As plan has been adapted from CBI plan and risk of disturbing artefacts is low, further consultation with aboriginal stakeholders has not been completed.	C	
Regular monitoring of implementation of Aboriginal cultural heritage procedures, including the CHMP and relevant legislation will be conducted to ensure that they are followed by staff and contractors.	223	Interview – Project Manager Weekly Checklist	Weekly check indicated in plan. JBS scheduled to complete weekly inspections commencing 16 December 2013  Quarterly internal and external audits to be completed.	IO	JBS Environmental to commence regular inspections
The CHMP will include procedures in the event that significant non-Aboriginal cultural heritage material is unearthed during	224	CHMP	Plan includes procedure in Appendix B	C	

<b>Commitment</b>	<b>Commitment Reference</b>	<b>Reference / Evidence</b>	<b>Comments</b>	<b>Audit Classification</b>	<b>Recommendations</b>
construction of the Project.					
All staff and contractors will be inducted and trained in cultural heritage procedures and the CHMP so they are aware of their obligations under the NSW Heritage Act.	225	Interview - Project Engineer Induction slide pack	Induction covers topic.	C	

Annex E

Audit Table - Dangerous Goods  
Management  
Plan



**Table E.1 Compliance Assessment - Implementation of the Dangerous Goods Management Plan - Lucas Engineering**

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
<b>DoPI, Ministers Conditions of Approval MP10_0133 issued 10 May 2012</b>					
<p>During construction, the Proponent shall store and handle all dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with:</p> <p>(a) all relevant Australian Standards; and</p> <p>(b) DECC's Environment Protection Manual Technical Bulletin - Bunding and Spill Management.</p> <p>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.</p>	B15	Site Inspection	Minor quantities of dangerous goods such as oils/grease stored inside secondary containment inside shipping containers. Bentonite (powder) stored on pallets under cover.	C	
<b>Statement of Commitments from the Preferred Project Report CR 6023_1-_v3 issued September 2011</b>					
Provide workforce inductions and training to ensure personnel have knowledge of the correct use of refuelling systems and chemical handling procedures.	5	Site Inspection Interview - Project Engineer	A refuelling work method statement has not been developed. Toolbox held to discuss required under filling of generator fuel tanks to prevent spills.	IO	Consider the development of a SWMS for refuelling with staff to sign on to confirm training received and that procedure will be followed.
Use licensed contractors to collect, transport and dispose of hazardous materials such as waste solvents, paints, mercury absorption medium and hydrocarbons to a licensed off-site facility in accordance with EPA guidelines	8	Site Inspection Interview - Project Engineer Transpacific Waste Docket 11/12/2013	Minor quantities of DGs stored on site. Excess drilling mud transported by Transpacific (EPL 6822). Destination - TTS Kooragang Island - licensed waste handling facility. JBS will be sampling material to confirm solid waste classification.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Regularly inspect hazardous material containment facilities to ensure their integrity.	10	Site Inspection Interview - Project Engineer	Anecdotally these inspections are completed twice daily by Safety Manager. Formal documentation of these checks is not currently completed.  Weekly checks have not commenced with JBS Environmental appointed to complete checks week starting 16 December 2013.	IO	Consider the addition of daily check currently completed onto current documentation.  Formal inspections to be completed by JBS Environmental.
Inspecting and monitoring hazardous material containment facilities to ensure their integrity.	23	Site Inspection Interview - Project Engineer	Anecdotally these inspections are completed twice daily by Safety Manager. Formal documentation of these checks is not currently completed.  Weekly checks have not commenced with JBS Environmental appointed to complete checks week starting 16 December 2013.	IO	Consider the addition of daily check currently completed onto current documentation.  Formal inspections to be completed by JBS Environmental.
Minimise the volume of hazardous chemicals stored on site.	66	Site Inspection Interview - Project Engineer Manifest	Quantities of chemicals stored on site added to manifest during audit - confirms minor quantities on site as noted during walkover.	C	
Store and transport hazardous materials according to their material safety data sheet (MSDS).	67	Site Inspection Interview - Project Engineer	Minor quantities of oil and grease stored inside secondary containment in shipping containers.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Store potentially contaminating chemicals according to the appropriate standards, including measures such as impervious bunded areas capable of capturing 110% of the maximum spill volume.	68	Site Inspection Interview - Project Engineer	Minor quantities of oil and grease stored inside secondary containment in shipping containers.	C	
Prepare a spill response plan and ensure adequate spill kits are available at all construction sites and personnel are trained in their use	69	Emergency Response Plan (ERP) Tool box records Induction slide pack	Spill response plan included in the following documents: <ul style="list-style-type: none"> <li>• ERP in Section 7 of Incident Management Plan (Doc#10371-HS-03-0003).</li> <li>• Section 7 of Ground Water Management Plan (GWMP);</li> <li>• Section 7 and Figure 4 of Surface Water Management Plan (SWMP); and</li> <li>• Appendix A of the Dangerous Goods and Hazardous Materials Management plan (DG&amp; HMMP).</li> </ul> Spill response kits noted around site during inspection.  Induction includes section on spill response.  Toolbox 01/12/2013 discussing oil leaks.	C	
<b>Additional Management Plan Commitments</b>					
Maintain dedicated refuelling, chemical storage, and equipment wash down areas	Table 5-1 (6)	Site Inspection Interview - Project Engineer	Chemical storage minor. Refuelling of generators completed on hardstand area at Hexham site.	C	

Commitment	Commitment Reference	Reference / Evidence	Comments	Audit Classification	Recommendations
Potentially hazardous and contaminating activities including major equipment maintenance /servicing, wash down of construction plant and concrete washout to be conducted in bunded areas away from watercourses and other environmentally sensitive areas.	Table 5-1 (7)	Site Inspection Interview - Project Engineer	Major equipment maintenance/servicing done off site. Wash down of drill rig completed daily on hardstand area of Hexham site with water washed into mud system.	C	

Annex F

## AGL and Lucas Engineering Audit Response and Action Table

**Table F.1** *AGL and Lucas Engineering Audit Response and Action Table*

Item No	Assessment Requirement	Audit Classification	Comment	Response/Action	Due Date
<i>Minister's Conditions of Approval MP10_0133</i>					
B21	Erosion and Sediment controls consistent with Managing Urban Stormwater: Soils and Construction Manual (Landcom, 2004) or its latest version) shall be installed prior to the commencement of soil disturbing works and shall be maintained until such time as the disturbed areas have been rehabilitated.	IO	East portion of site heavily disturbed. Consider the installation of additional erosion and sediment controls along eastern and north eastern Hexham site boundary to protect drainage lines.		
<i>Statement of Commitments</i>					
5	Provide workforce inductions and training to ensure personnel have knowledge of the correct use of refuelling systems and chemical handling procedures.	IO	A refuelling work method statement has not been developed. Consider the development of a SWMS for refuelling with staff to sign on to confirm training received and that procedure will be followed.		
10 & 23	Regularly inspect hazardous material containment facilities to ensure their integrity.	IO	Anecdotally these inspections are completed twice daily by Safety Manager. Formal documentation of these checks is not currently completed. Consider the addition of daily check currently completed onto current documentation.  Weekly checks have not commenced with JBS Environmental appointed to complete checks week starting 16 December 2013 Formal inspections to be completed by JBS Environmental.		

Item No	Assessment Requirement	Audit Classification	Comment	Response/Action	Due Date
24 & 25 61 to 64	<p>Inspecting and maintaining erosion and sedimentation control structures.</p> <p>Undertake daily inspections of all runoff, erosion and sediment control structures during the construction period.</p> <p>Ensure silt fences are in a vertical position and securely fixed and remove sediment or residue behind sediment control barriers.</p> <p>Monitor earthwork areas regularly for signs of erosion.</p>	NC-2	To be completed by JBS Environmental commencing week starting 16 December 2013. Informal checks completed by staff during day. Consider the addition of daily check onto current documentation.		
56	Install sediment capture devices, such as silt fences and bunding, down-slope of exposed soils and soil stockpiles.	IO	<p>Sediment fence not installed along east boundary behind drilling mud collection pits at Hexham construction pad site.</p> <p>Fence installed along north drainage line.</p> <p>Consider the installation of additional erosion and sediment controls behind Hexham Receiving Station.</p>	Refer to MCoA B21	
85	When wastewater is tankered, the system will have a telemetered level sensor that alarms when over range; The tank will be included on the regular site inspection and reporting program.	NC-1	<p>High level alarm not currently installed on system. Consider the installation of a high level alarm in the sewage system.</p> <p>Visual checks completed daily but not recorded. Include check on existing documentation.</p>		

Item No	Assessment Requirement	Audit Classification	Comment	Response/Action	Due Date
223	Regular monitoring of implementation of Aboriginal cultural heritage procedures, including the CHMP and relevant legislation will be conducted to ensure that they are followed by staff and contractors.	NC-2	Weekly check indicated in plan. JBS scheduled to complete weekly inspections commencing 16 December 2013		
	<i>Additional Plan Commitments (Acid Sulfate Soil)</i>				
S6.1	Daily visual inspections of the construction site will be undertaken to identify actual or potential ASS concerns.	IO	No excavations completed to date of audit, however there is no formal check of PASS/ASS once excavation commences. Consider the addition of formal visual check during excavations to existing daily checklists		
	<i>Additional Plan Commitments (Soil Management Plan)</i>				
S6.2	Where temporary or permanent constructions pads are proposed, the following steps should be undertaken:  c. Install a silt fence on the down-slope side of the work area and at least 50% of the sides adjacent to the down-slop edge of the work area.	IO	Sediment fence not installed along east boundary behind drilling mud collection pits at Hexham construction pad site.  Fence installed along north drainage line.  Consider the installation of additional erosion and sediment controls behind Hexham Receiving Station.	Refer to MCoA B21	



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