

Independent Environmental Audit (2018)

Clyde Terminal Conversion (DA No. SSD 5147)

For Viva Energy Australia

11 September 2018



Doc. No.: J-000311-REP-IEA

Revision: 1



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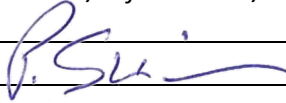
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DOCUMENT HISTORY AND AUTHORISATION

Rev	Date	By	Description	Check	Approved
A	25 Jul 2018	PS	Draft for client review.	JPM	PS
0	30 July 2018	PS	Final report.	JPM	PS
1	11 Sept 2018	PS	Final report incorporating DP&E's amendments to the action plan for corrective actions 3 and 5 (Refer to Table 2).	PS	PS

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Independent Audit Certification Form	
Development Name	Clyde Terminal Conversion
Development Consent No.	SSD 5147
Description of Development	Conversion of Clyde refinery to a finished petroleum products import, storage and distribution terminal including demolition of the redundant infrastructure
Development Address	Gate 5, Durham Street, Rosehill NSW 2142
Operator	Viva Energy Australia
Operator Address	Level 16, 720 Bourke Street, Docklands Vic 3008
Independent Audit	
Title of Audit	Independent Environmental Audit (2018)
<p><i>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> <i>The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits;</i> <i>The findings of the audit are reported truthfully, accurately and completely;</i> <i>I have exercised due diligence and professional judgement in conducting the audit;</i> <i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</i> <i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</i> <i>I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i> <i>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</i> <i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i> <p><i>Note.</i></p> <p><i>a) The Independent Audit is an ‘environmental audit’ for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications / information / documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead / Principal Auditor	Philip Skinner
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Auditor Certification (if relevant)	Exemplar Global AU: <i>Management systems auditing</i> Exemplar Global EM: <i>Environmental management systems</i> Exemplar Global TL: <i>Leading management systems audit teams</i>
Date:	11 September 2018

Summary

Overview

In February 2014, Vitol announced it had reached a binding agreement with Shell to acquire its Australian downstream business, excluding Aviation. The acquisition included Shell's operations in Clyde, NSW. As a result of the acquisition, the Shell Company of Australia was renamed Viva Energy Australia Pty Ltd (Viva Energy) on 13 August 2014. Viva Energy is the exclusive licensee of Shell products in Australia.

A Development Application (DA) for conversion of the Clyde refinery to a terminal operation, including demolition of redundant infrastructure, was submitted by the Shell Company of Australia Limited (Shell) to the Department of Planning and Infrastructure (Now Department of Planning and Environment, DP&E) in November 2013.

Consent for the terminal conversion was granted on 14 January 2015 subject to the conditions listed in the Development Consent - Section 89E of the Environmental Planning and Assessment Act 1979 - Application No. SSD 5147.

Condition No. D7 in Schedule D of the Development Consent (DA No. SSD 5147) requires an Independent Environmental Audit (IEA) of the Clyde Terminal Conversion Project to be undertaken.

The IEA was undertaken in accordance with the methodology outlined in AS/NZS ISO 19011:2014 *Guidelines for Auditing Management Systems* [Ref. 5] and the NSW Government's *Independent Audit Guideline, Post-Approval Requirements for State Significant Developments* [Ref. 4]. It included four major verification activities:

- Agency and community consultation (Undertaken prior to site visit);
- Personnel interviews;
- Document reviews; and
- Site and equipment inspections.

Site visits were conducted on 15-17 and 31 May 2018. Personnel interviews were undertaken on 15-17 May and the facility was inspected on 31 May 2018.

Summary of Findings from Compliance Assessment

The compliance status was reviewed for all Consent Conditions (Refer to Section 5). Additional relevant conditions from the EPL were also considered during the audit (Refer to Section 5.2) and observations were recorded from the site inspections (Refer to Section 5.3).

The compliance status for each relevant requirement was assessed in accordance with the criteria from the NSW Government’s *Independent Audit Guideline* [Ref. 4]. The number of findings in each category is listed in the following table (Note: Due to the interim staged implementation of the CTCP, multiple compliance assessment categories may apply for a single Consent Condition):

Table 1 Summary of Findings

Compliance Assessment Category	Number of Findings					
	Consent Conditions			EPL Conditions	Previous IEA/s	Total
	Sched. B	Sched. C	Sched. D			
Compliant	12	37	9	41	12	111
Not Verified	3	18	0	18	0	39
Non-Compliant	0	4	0	3	0	7 *
Admin. Non-Compliance	0	1	0	1	0	2
Not Triggered	4	4	0	5	0	13
Observation	0	0	0	0	0	0
Note	2	1	0	13	0	16
Total	21	65	9	81	12	188

* Some of the non-compliances relate to equivalent requirements in the consent conditions and the EPL – These are recorded as multiple non-compliances (i.e. CC # C45 and EPL # L3.5; CC # C46 and EPL # L1.1). When combined, the total number of non-compliances is reduced to 5.

If it was not possible to verify all requirements of some Consent Conditions within the scope of this IEA, then these Consent Conditions have been categorised as ‘Not Verified’ in accordance with the DP&E’s assessment criteria (Refer to Section 2.3). Generally, no evidence was found to suggest that the operation is non-compliant with these Consent Conditions; however, if a non-compliance was identified, then this was recorded accordingly.

No complaints have been recorded by Viva relating to the CTCP since the previous IEA (Refer to Section 3).

Despite the identified Non-Compliances (Some of which are duplicates as noted above), the overall level of compliance and environmental performance for the CTCP is good.

Risk Levels for Identified Non-Compliances

Risk levels for each of the identified Non-Compliances were determined based on the NSW Government’s *Independent Audit Guideline* [Ref. 4] (Refer to Section 2.3).

The risk levels for all the identified Non-Compliances were assessed to be ‘low’ or of an ‘administrative’ nature. These Non-Compliances were considered to pose a low potential for environmental harm.

Corrective Actions

The corrective actions identified from the IEA are listed in Table 2 together with Viva’s initial response and proposed action plan. Each action is categorised as one of the following: Non-Compliant (NC); Administrative Non-Compliance (ANC); Not Verified (NV) or an Observation (OBS). These categories are consistent with the compliance assessment criteria in the NSW Government’s *Independent Audit Guideline* [Ref. 4].

Table 2 Corrective Actions and Proposed Action Plan

Action No.	Corrective Action		Viva Response & Proposed Action Plan
	Description	Cat.	
2018/01	Viva Energy should seek confirmation from the DP&E that consent condition B8 has been satisfactorily addressed by their letter to the Department dated 27 April 2016. <i>(Refer to Section 5.1 - Table 7, CC # B8)</i>	OBS	Action: Seek confirmation from DPE&E on compliance of condition B8 Who: Environment Lead When: 31 December 2018
2018/02	Viva Energy should ensure measures to minimise the potential generation of airborne dust are maintained on an ongoing basis (including potential re-application of the dust and erosion control coating). <i>(Refer to Section 5.1 - Table 7, CC # C28 and Section 5.2 - Table 8, EPL # O3.1)</i>	OBS	Action: Assess the need of reapplying dust and erosion control product on old refinery demolished area Who: Demolition and Remediation Manager When: 30 October 2018
2018/03	Viva Energy should consult with the DP&E to determine if consent condition C41 can be removed, particularly as safe assembly and evacuation is also addressed in CC # C42(e). If not removed, then the flood warning signs should be installed. <i>(Refer to Section 5.1 - Table 7, CC # C41)</i>	NC	Action: Install flood warning signs Who: Demolition and Remediation Manager When: 31 October 2018
2018/04	The flood maps showing assembly points and evacuation routes should be updated in the Flood Action Card of the Emergency Response Plan. <i>(Refer to Section 5.1 - Table 7, CC # C42)</i>	ANC	Action: Update the Flooding Tactical Checklist with revised flood maps Who: Senior Management System Lead, Assurance When: 31 December 2018
2018/05	‘Stormwater Only’ signs should be provided on all of the relevant drains located in the car parking areas at the main office building. <i>(Refer to Section 5.1 - Table 7, CC # C47)</i>	NC	Action: Provide “Stormwater Only” signs Who: Demolition and Remediation Manager When: 31 October 2018

Action No.	Corrective Action		Viva Response & Proposed Action Plan
	Description	Cat.	
2018/06	<p>The alternate concept design and revised plan of management for the Green and Golden Bell Frog (GGBF) habitat should be finalised submitted to the DoE for approval.</p> <p>The approved design and revised plan of management should be implemented accordingly.</p> <p>(Refer to Section 5.1 - Table 7, CC # C58)</p>	OBS	<p>Action: Submit revised GGBF habitat restoration PoM to DoE for approval and implement accordingly</p> <p>Who: Demolition and Remediation Manager</p> <p>When: 14 January 2019</p>
2018/07	<p>Information provided during the IEA suggests that the DP&E may have exempted Viva Energy from the requirements of consent condition D3 for the EMS. If this applies for other strategies, plans, etc. then this should be confirmed with the DP&E and consent condition D3 should be revised accordingly.</p> <p>(Refer to Section 5.1 - Table 7, CC # D3)</p>	OBS	<p>Action: Seek clarification from DP&E on compliance of condition D3</p> <p>Who: Environment Lead</p> <p>When: 31 December 2018</p>
2018/08	<p>The drawing referred to in EPL # A2.2 should be updated to show the location of the diesel tanks in Tank Farm B2.</p> <p>(Refer to Section 5.2 - Table 8, EPL # A2.2)</p>	OBS	<p>Action: Update drawing to reflect two new diesel tanks and Stage 2 Demolition</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/09	<p>EPL # A3.1 is no longer applicable and should be removed from the EPL.</p> <p>(Refer to Section 5.2 - Table 8, EPL # A3.1)</p>	OBS	<p>Action: Request removal of EPL#A3.1 from EPL</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/10	<p>The purpose and current status of LDP 23 should be determined. If this LDP is not required, then review with EPA to determine if it can be removed from the EPL.</p> <p>(Refer to Section 5.2 - Table 8, EPL # P1.1)</p>	OBS	<p>Action: Request removal of LDP23 from EPL if required</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/11	<p>The volume discharged per day at LPDs 1, 2, 4 and 30 should be included with the monitoring results reported on the Viva website.</p> <p>(Refer to Section 5.2 - Table 8, EPL # L4.1)</p>	OBS	<p>Action: Include discharge volume monitoring data on Viva website</p> <p>Who: Environment Lead</p> <p>When: 30 August 2018</p>
2018/12	<p>The status of EPL # O4.2 should be reviewed with the EPA to determine if it can be removed from the EPL.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O4.2)</p>	OBS	<p>Action: Request removal of O4.2 from EPL</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>

Action No.	Corrective Action		Viva Response & Proposed Action Plan
	Description	Cat.	
2018/13	<p>The status of EPL # O4.3 should be reviewed with the EPA to determine if this condition can be amended to reflect the current process of off-site disposal of the Biotreater filter cake rather than its treatment at the on-site drying area.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O4.3)</p>	OBS	<p>Action: Request amend EPL O4.3</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/14	<p>EPL # O4.4 should be reviewed with the EPA. It should also refer to the use of the sludge dewatering facility for the treatment of soil contaminated with hydrocarbons OR EPL # O5.4 should be amended to indicate that heavily contaminated soil can also be treated at the sludge dewatering facility.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O4.4)</p>	OBS	<p>Action: Request amendment EPL O4.4 if required</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/15	<p>EPL # O5.4 should be reviewed with the EPA to determine if it can be revised to more clearly describe the materials that may be treated at the "sludge dewatering facility" (and whether this is the most appropriate name for this area). If oily sludge can be treated elsewhere (e.g. at the Biotreater) or disposed off-site, then this should also be clarified.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O5.4)</p>	OBS	<p>Action: Request amendment EPL O5.4 if required</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/16	<p>EPL # O6.2 should be reviewed with the EPA to determine if this condition can be removed (together with reference to LDP 27 from EPL # P1.1).</p> <p>If LDP 27 cannot be removed, then the drawing showing the licenced discharge points should be updated accordingly.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O6.2)</p>	OBS	<p>Action: Request amendment EPL O6.2</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>

Action No.	Corrective Action		Viva Response & Proposed Action Plan
	Description	Cat.	
2018/17	<p>EPL # M2.5 should be reviewed with the EPA to determine if monitoring and reporting results at LDP 26 is required when there is no actual discharge via LDP 4.</p> <p>Consider amending the frequency definition in EPL # M2.4 for Point 26 from “daily during any discharge” to “daily during any discharge from Point 4”.</p> <p>(Refer to Section 5.2 - Table 8, EPL # M2.5)</p>	OBS	<p>Action: Request amendment to description of LDP26 on EPL P1.1</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/18	<p>The location of LDP 24 should be clearly marked by a sign (As required by EPL # G2.1).</p> <p>(Refer to Section 5.2 - Table 8, EPL # G2.1)</p>	NC	<p>Action: Erect sign for LDP24</p> <p>Who: Clyde Operations Coordinator</p> <p>When: 31 December 2018</p>
2018/19	<p>There appears to be a typographical error in EPL # G2.1 – There is no condition P1.2 in the current EPL. This appears to be as a result of deleting P1.1 from an earlier version of the EPL. P1.2 should be changed to P1.1 in EPL # G2.1.</p> <p>(Refer to Section 5.2 - Table 8, EPL # G2.1)</p>	OBS	<p>Action: Request amendment of EPL G2.1</p> <p>Who: Environment Lead</p> <p>When: 31 July 2019</p>
2018/20	<p>A sign was observed for LDP 11 (Refer to Section 5.3, Table 9, ID # 12). This is no longer listed as a LPD in the EPL and the signage should be removed (or revised if it needs to be retained for other operational reasons).</p> <p>(Refer to Section 5.2 - Table 8, EPL # G2.1)</p>	OBS	<p>Action: Remove LDP 11 sign</p> <p>Who: Clyde Operations Coordinator</p> <p>When: 31 December 2018</p>

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Notation

Abbreviation	Description
AEP	Annual Exceedence Probability
AEPR	Annual Environmental Performance Review
A/G	Above Ground
ANC	Administrative Non-Compliance
Arriscar	Arriscar Pty Limited
AS	Australian Standard
CC	Consent Condition
CSS	Construction Safety Study
CTCP	Clyde Terminal Conversion Project
DA	Development Application
DG	Dangerous Good
DP&E	NSW Department of Planning and Environment
EMP	Environment Management Plan
EMS	Environmental Management Strategy
EPA	NSW Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence
EST	End State Terminal
g/m ³	Grams per cubic metre
HAZOP	Hazard and Operability Study
IEA	Independent Environmental Audit
ISO	International Standards Organisation
kPag	Kilopascal (gauge)
LBL	Load Based Licence
m	Metres
mg/l	Milligrams per litre
NC	Non-Compliant

Abbreviation	Description
NV	Not Verified
OBS	Observation
PHA	Preliminary Hazard Analysis
POEO Act	NSW Protection of the Environment Operations Act
PRP	Pollution Reduction Program (As detailed in EPL)
TSS	Total Suspended Solids
VENM	Virgin Excavated Natural Material
WHS or WH&S	Work Health and Safety
WO	Work Order

1 INTRODUCTION

1.1 Background

In February 2014, Vitol announced it had reached a binding agreement with Shell to acquire its Australian downstream business (excluding Aviation). This included Shell's operations in Clyde, NSW. As a result of the acquisition, the Shell Company of Australia was renamed Viva Energy Australia Pty Ltd (Viva Energy) on 13 August 2014. Viva Energy is the exclusive licensee of Shell products in Australia.

A Development Application (DA) for conversion of the Clyde refinery to a terminal operation, including demolition of redundant infrastructure, was submitted by the Shell Company of Australia Limited (Shell) to the Department of Planning and Infrastructure (Now Department of Planning and Environment, DP&E) in November 2013.

Consent for the terminal conversion was granted subject to the conditions listed in the Development Consent - Section 89E of the Environmental Planning and Assessment Act 1979 - Application No. SSD 5147 [Ref. 2].

Condition No. D7 in Schedule D of the development consent (DA No. SSD 5147) requires a periodic Independent Environmental Audit (IEA) of the CTCP. The full text of Condition No. D7 is as follows:

Within a year of the date of this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Development. This audit must:

- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
- (b) include consultation with the relevant agencies;*
- (c) assess the environmental performance of the Development and whether it is complying with the relevant requirements in this consent and any relevant EPL (including any assessment, plan or program required under these approvals);*
- (d) review the adequacy of any approved strategy, plan or program required under these approvals; and*
- (e) recommend measures or actions to improve the environmental performance of the Development, and/or any assessment, plan or program required under these approvals.*

Viva Energy engaged Arriscar Pty Ltd (Arriscar) to undertake an IEA for the Clyde Terminal Conversion project. The auditor (Refer to Section 1.5) was approved by the Department of Planning and Environment (DP&E).

The site visit (interviews and site inspection) was undertaken on 15-17 and 31 May 2018 and the audit was completed on 25 July 2018 when the audit report was presented to site management.

This report includes the findings of the audit (Refer to Section 5); a review of environmental incidents and complaints (Refer to Section 3); and, an initial program for implementation of the identified corrective actions (Refer to Summary).

1.2 Overview of Clyde Terminal

The Clyde Terminal receives Unleaded Petrol (ULP), Jet A1 and Diesel fuel from Gore Bay via the Gore Bay pipeline. These products are stored on site and then distributed to: the road tanker loading gantry at the adjacent Parramatta Terminal; Sydney Airport (via the JUHI pipeline); and, the Hunter Valley (via pipeline).

Conversion of the Clyde refinery to an End-State Terminal (EST) operation has required demolition of the refinery infrastructure (complete) and removal of some tanks (mostly complete – see below). Some tanks have been refurbished and new pipe manifolds, valves and electrical systems / instrumentation, bund upgrades, etc. have been installed as part of the CTCP.

Most of the works associated with the EST have now been completed. Examples of works yet to be completed for the EST include:

- Commissioning of the upgraded firefighting water system (new water storage tanks and pumps).
- Decommissioning and demolition of two firewater tanks, Tank Farms A2 (Jet Fuel), A3 (Diesel) and C (Gasoline), and associated pipe works, which are currently in use for the Interim Terminal Operation (ITO).
- Construction of breeding ponds and other Green and Golden Bell Frog (GGBF) habitat restoration works.

1.3 Objectives

The overall objective was to undertake an IEA for the Clyde Terminal Conversion Project, as required by Condition No. D7 in Schedule D of the development consent (DA No. SSD 5147).

The IEA was undertaken to primarily assess Viva's compliance with the requirements of the relevant regulatory approvals (i.e. Primarily the conditions in the relevant Development Consents and Environment Protection Licence). However, the environmental performance of the development, and its effects on the surrounding environment was also considered.

1.4 Audit Scope

The scope of the IEA included all operational areas included in the relevant DAs for the Clyde Terminal Conversion Project. It included all organisational units, activities and processes that are referred to in the Consent Conditions (e.g. noise monitoring, air monitoring, etc.).

The scope included all relevant Consent Conditions from the Development Consent for DA No. SSD 5147 and all relevant conditions from Environment Protection Licence No. 570.

The scope of the IEA also included:

- Consideration of the feedback received from the agency consultation undertaken prior to the site visit (Refer to Section 2.4.1).
- A review of environment related incidents and complaints since the previous IEA (Refer to Section 3).
- A review of the status of the recommendations included in the previous IEA (Refer to Section 6).

1.5 Auditor

The audit was carried out by Mr Philip Skinner from Arriscar.

Mr Skinner is a chemical engineer with 25 years' experience in management system implementation and auditing. He is a certified lead environmental auditor and has undertaken numerous audits and safety / environmental projects for a wide range of industries.

Viva obtained prior written approval from the Department of Planning and Environment for Mr Skinner to lead the audit.

2 METHODOLOGY

2.1 Introduction

The IEA was undertaken in accordance with the methodology outlined in AS/NZS ISO 19011:2014 *Guidelines for Auditing Management Systems* [Ref. 5] and the NSW Government’s *Independent Audit Guideline, Post-Approval Requirements for State Significant Developments* [Ref. 4].

2.2 Audit Criteria

The conditions of the Development Consent (DA No. SSD 5147) and the conditions of the EPL (EPL No. 570) were the principal criteria against which compliance was assessed in the IEA. The conditions of the Development Consent also refer to other documents that were considered during the audit.

To provide a structure for the audit, Arriscar utilised an audit protocol (Refer to Table 7 in Section 5) based on the conditions of development consent, as summarised in Table 3 below. Appendices to the Development Consent were considered when referred to in a specific consent condition.

Table 3 Conditions of Development Consent

Part	Description
Schedule B	ADMINISTRATIVE CONDITIONS
Schedule C	ENVIRONMENTAL PERFORMANCE AND MANAGEMENT
Schedule D	ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING

2.3 Compliance Assessment

The compliance status for each relevant requirement is reported in Section 5 and was assessed in accordance with the following criteria from the NSW Government’s *Independent Audit Guideline* [Ref. 4].

Table 4 Compliance Assessment Criteria [Ref. 4]

Category	Description
Compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit.
Not Verified	Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification, the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the auditor could note in the report that they have no reasons to believe that the operation is non-compliant with that requirement.

Category	Description
Non-Compliant	Where the auditor has collected sufficient verifiable evidence to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the audit.
Administrative Non-Compliance	A technical non-compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
Not Triggered	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, therefore a determination of compliance could not be made.
Observation	Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where performance may be improved.
Note	A statement or fact, where no assessment of compliance is required.

The risk level for each identified Non-Compliance is reported in the Summary section and was assessed in accordance with the following criteria from the NSW Government’s *Independent Audit Guideline* [Ref. 4].

Table 5 Risk Levels for Non-Compliances [Ref. 4]

Risk Level	Colour Code	Description
High		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.
Medium		Non-compliance with: <ul style="list-style-type: none"> potential for serious environmental consequences, but is unlikely to occur; or potential for moderate environmental consequences, but is likely to occur
Low		Non-compliance with: <ul style="list-style-type: none"> potential for moderate environmental consequences, but is unlikely to occur; or potential for low environmental consequences, but is likely to occur
Administrative Non-Compliance		Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

2.4 Verification Process

The audit comprised four major verification activities:

- Agency and community consultation (Undertaken prior to site visit);
- Personnel interviews;
- Document reviews; and
- Site and equipment inspections.

Site visits were conducted on 15-17 and 31 May 2018. Personnel interviews were undertaken on 15-17 May and the facility was inspected on 31 May 2018.

2.4.1 Agency and Community Consultation

Prior to the commencement of the site inspection (refer to Section 2.4.4), the auditor contacted (by phone) the key agencies with a role in regulating the development to obtain their feedback and to draw the auditor's attention to any key issues. This included representatives of the:

- Department of Planning and Environment (DP&E);
- Environment Protection Authority (EPA);
- Fire & Rescue NSW;
- Parramatta City Council; and
- SafeWork NSW.

Note: There is no community consultative committee; therefore, only the agencies listed above were contacted.

No major concerns or complaints were raised by any of the contacted agency representatives.

One item was raised by several of the contacted agency representatives and was therefore specifically reviewed during the audit (Refer to Section 3). This related to the on-site storage and treatment of contaminated soil from a fuel pipeline leak at Sydney Olympic Park. This incident does not relate to the CTCP (SSD 5147); however, the contaminated soil was observed during the site inspection.

2.4.2 Personnel Interviews

Personnel with various responsibilities were interviewed during the site visits. All interviewed personnel were extremely helpful and open during the audit.

The main personnel interviewed during the site visit are listed in Table 6.

Table 6 Personnel Interviewed

Name	Title
Adam Speers	Environmental Lead
Chris Brown	Construction Manager
Erica Salazar	Remediation and Waste Lead
James Crowden	Operations Manager
Julie Seymour	Conversion Project and Regional Operations Manager
Trent Yaulten	Operations Coordinator

2.4.3 Document Reviews

Samples of corporate and site-specific procedures were reviewed. Random checks of completed forms were also undertaken to check the degree of completion and to assess the effectiveness of the systems in place.

A full listing of the documentation reviewed during the audit is provided in Appendix A.

2.4.4 Site and Equipment Inspections

A site inspection was carried out on 31 May 2018. All operational locations were observed during these inspections.

The findings and recommendations from the site and equipment inspections are listed in Table 9 (Refer to Section 5.3).

3 ENVIRONMENT RELATED INCIDENTS AND COMPLAINTS

3.1 Introduction

The IEA included a review of environment related incidents and complaints reported for the CTCP since the previous IEA (15 July 2016). Viva Energy recorded the following:

- No complaints associated with the CTCP relating to odour, noise, vibration, air quality or traffic (As reported in the: Annual Environmental Performance Review report for 2016; Annual Return for 2017; and recorded on the Complaints Register). Note: Only one complaint is recorded on the publicly available complaints register and this predates the previous IEA.
- An unintended discharge of a soil binding dust suppressant to Duck River (Refer to Section 3.2).
- Exceedence of the 80 mg/l TSS criteria at LDPs 28 and 29 (which applies within 48 hours of rainfall event) (Refer to Section 3.3).

The complaints register is available on the CTCP website: <https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project>. This includes records of complaints from 2015 onwards (Also refer to Section 3). The process for management of complaints is included in Section 3.3 of the EMS (Copy provided).

3.2 Discharge of Diluted Dust Suppressant and Herbicide to Duck Creek

A non-compliance was recorded when it was identified that a quantity of wash water from the cleaning of equipment used to apply a soil binding dust suppressant had been discharged to Duck River. The incident occurred on the 3rd and/or 4th November 2016 and was notified to the NSW EPA and DPE when Viva Energy became aware of the incident on the 23rd February 2017.

The materials and quantities released were estimated to be as follows:

- “Total Control Plus” (soil binding dust suppressant), estimated total volume <10L (SDS attached);
- “Weedmaster Duo” (herbicide), estimated total volume <1L; and
- Water, estimated volume from dilution and washing approximately 5,000 litres.

This was reported as a non-compliance in the 2016-2017 Annual Return (Copy provided) to the EPA. Viva received a penalty notice for this exceedence (Notice No. 3085782600, issued 19 Jun 2017).

3.3 Discharge of Suspended Solids

Discharge to surface waters in excess of TSS criteria (80 mg/L within 48 hours of rainfall event) has occurred from EPL 570 licenced discharge points 28 and 29. The following exceedences were recorded since the previous IEA (15 July 2016):

- 20-Jul-16 – 110 mg/L TSS at discharge LDP 28 (LBL Interceptor bay 1/2 overflow)
- 24-Aug-16 – 210 mg/L TSS at discharge LDP 29 (LBL Interceptor bay 3/4 overflow)
- 1-Mar-17 – 140 mg/L TSS at discharge LDP 29

The were reported as non-compliances in the 2016-2017 Annual Return (Copy provided) to the EPA (Note: The 2017-2018 return was not available at time of the current IEA) and are categorised on the EPA website as “Appropriate Action taken by licensee”.

4 OVERVIEW OF MANAGEMENT SYSTEM

Viva has an integrated Health, Safety, Security, the Environment & Social Performance Management System (HSSE & SP MS). The key elements of the HSSE & SP MS are:

- Leadership and Commitment
- Policy and Objectives
- Organisation, Responsibilities and Resources
- Risk Management
- Planning and Procedures
- Implementation, Monitoring and Reporting;
- Assurance
- Management Review.

The Environmental Management Manual (EMM) for the Clyde Terminal outlines the environmental requirements of the HSSE & SP MS specific to the facility. It provides information on the essential environmental activities required to maintain environmental compliance (with reference to relevant consent conditions). The EMM is available on the Viva Energy website.

Monitoring and review of the effectiveness of the HSSE & SP MS (that is, its ongoing effective implementation and its ongoing improvement) requires:

- Routine performance monitoring against targets and KPIs;
- Investigation of incidents / non-conformities and the implementation of corrective / preventative actions;
- Auditing; and
- Management reviews to resolve issues with performance or to make improvements to the HSSE & SP MS.

5 AUDIT FINDINGS

The findings and corrective actions for each relevant condition, based on the personnel interviews and document reviews, are listed in Section 5.1 (Table 7 - Conditions of Development Consent) and Section 5.2 (Table 8 - Conditions from EPL). The findings and recommendations from the site and equipment inspections (31 May 2018) are listed in Section 5.3 (Table 9).

The corrective actions are also included in the Summary section of this report, together with the facility management's proposed action plan.

5.1 Conditions of Development Consent

Table 7 Audit Findings (Conditions of Development Consent)

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
SCHEDULE B ADMINISTRATIVE CONDITIONS				
OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT				
B1	The Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, demolition or operation of the Development.	<p>Overall, based on the findings of this audit (including the site inspection – Refer to Section 5.3), Viva appear to have implemented reasonable and feasible measures. For example:</p> <ul style="list-style-type: none"> Measures identified in the EIS have been included in the relevant management plans, which are available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project. All tanks containing hydrocarbons or water treatment chemicals that were sighted during the site inspection were observed to be bunded (Refer to Section 2.4.4, Table 9, ID # 10). Installation of intermediate bund walls. 	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		<ul style="list-style-type: none"> The integrity of the bund walls has also been improved since the previous IEA by application of shot-creting (Refer to Section 5.3, Table 9, ID # 4). Use of stormwater management measures such as sandbags, hay bails and sediment fences (Refer to Section 5.3, Table 9, ID # 1 and ID # 6). Construction of the new electrical substation 32 to comply with local flood levels (Refer to C37 and Section 5.3, Table 9, ID # 3). Installation of solar powered lighting (Refer to C37 and Section 5.3, Table 9, ID # 2). Segregation and disposal / recycling of waste materials (Refer to C37 and Section 5.3, Table 9, ID # 9). Treatment of contaminated soil in the sludge dewatering bay and land farm areas (Refer to C37 and Section 5.3, Table 9, ID # 8). <p>Other examples are included in Section 5.</p>		
TERMS OF CONSENT				
B2	<p>The Applicant shall carry out the Development generally in accordance with the:</p> <ul style="list-style-type: none"> (a) EIS; (b) site layout plans and drawings in the EIS (see Appendix A); (c) the Management and Mitigation Measures (see Appendix C); and (d) conditions of this consent. 	<p>It is difficult to verify compliance with all aspects of this CC; therefore, a sampling approach was adopted as follows:</p> <ul style="list-style-type: none"> Multiple areas of the facility were visited during the site inspection and example management and mitigation measures were sighted (As listed in Appendix C of the Development Consent – Also refer to CC # B1). Relevant observations from the site inspection are recorded in Section 5.3. Example site plans, drawings and management plans were reviewed during the audit. 	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		<ul style="list-style-type: none"> Compliance with the consent conditions is covered in Section 5.1 of this report. <p>As it was not possible to verify all requirements of this CC within the scope of this audit, it has been categorised as 'Not Verified' in accordance with the DP&E's assessment criteria (Refer to Section 2.3). However, no evidence was found to suggest that the Development is not "generally in accordance" with the items listed in this consent condition.</p>		
B3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	No significant inconsistencies were raised by Viva or identified during the IEA.	Note	
B4	<p>The Applicant shall comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of:</p> <p>(a) any reports, plans or correspondence that are submitted in accordance with this consent; and</p> <p>(b) the implementation of any actions or measures contained within these reports, plans or correspondence.</p>	<p>Conditional approval has been provided for some studies (e.g. the Fire Safety Study – Refer to CC # C2).</p> <p>The status of this CC has been marked as 'not verified' since it was not possible to verify implementation of all control measures and actions, particularly as the CTCP is not yet complete (i.e. operation of the EST has not yet commenced).</p>	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
LIMITS OF CONSENT				
B5	<p>The Applicant shall not store in excess of:</p> <p>(a) 264 megalitres (ML) of finished petroleum products; and</p> <p>(b) 1,550 cubic metres (m³) of petroleum gases; on the site at any one time, unless otherwise agreed to in writing by the Secretary.</p>	<p>Viva have a Supply Operations Import Management Tool (Excel spreadsheet), which has the 264 ML limit set as a flag. This was sighted (copy not provided) and it was noted that historical data dating back to Jan-17 shows compliance with the 264 ML limit.</p> <p>Viva advised that import plans are made ~90 days ahead of required arrival dates, and placeholder imports are included in future plans. Any potential 264 ML exceedance can be identified using in the Supply Operations Import Management Tool prior to the import and would enable alternative import strategies to be developed.</p> <p>There is no bulk storage of petroleum gases at the site.</p>	Compliant	
B6	<p>Construction shall not extend beyond four (4) years from the date of this consent.</p>	<p>The Development Consent for the Clyde Terminal Conversion project (DA No. SSD 5147) is dated 14 January 2015; therefore, Viva are currently compliant with this consent condition.</p> <p>Note: Viva advised that some unanticipated construction work might be required post January 2019. For example, when Tank T90 is opened for a turnaround, it may need to be taken out of service for longer than anticipated (not project related), and some project-related work (installation of valves etc.) may need to occur post January 2019. Viva would need to consult with DP&E if this situation arises.</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
B7	Demolition shall not extend beyond ten (10) years from the date of this consent.	<p>The Development Consent for the Clyde Terminal Conversion project (DA No. SSD 5147) is dated 14 January 2015; therefore, Viva are currently compliant with this consent condition.</p> <p>Note: Viva advised that one tank will not be demolished as originally proposed. Viva propose to seek a modification to the consent to cover this.</p>	Compliant	
SURRENDER OF EXISTING DEVELOPMENT CONSENTS				
B8	<p>Within six (6) months of the date of this consent, or as otherwise agreed to in writing by the Secretary, the Applicant shall surrender all existing development consents for the site listed in Appendix B in accordance with Clause 97 of the EP&A Regulation.</p> <p><i>Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.</i></p>	<p>Viva Energy has surrendered the existing development consents applicable for the site (Letter to the DP&E dated 27 April 2016, copy provided). Viva Energy advised that the DP&E has not responded to this letter.</p> <p>It was noted that the list of development consents in Appendix B of the development consent includes some that are outside the boundary of the site covered by SSD 5147. Therefore, an action has been included for Viva Energy to seek confirmation from the DP&E that consent condition B8 has been satisfactorily addressed by their letter of 27 April 2016.</p>	Compliant	<p>2018/01 - Viva Energy should seek confirmation from the DP&E that consent condition B8 has been satisfactorily addressed by their letter to the Department dated 27 April 2016.</p> <p><i>(Refer to Section 5.1 - Table 7, CC # B8)</i></p>
STATUTORY REQUIREMENTS				
B9	The Applicant shall ensure that all licences, permits and approval/consents are obtained as required by law and maintained as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approval/consents.	A current EPL (No. 570) is held for the facility (Refer to Section 5.2). Records of modifications to this EPL are available on the EPA website.	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
STRUCTURAL ADEQUACY				
B10	<p>The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures are constructed in accordance with the relevant requirements of the BCA.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works; and Part 8 of the EP&A Regulation sets out the requirements for the certification of the Development. 	<p>It is reported in the previous IEA report that the construction certificates were sighted for the electrical system (2-Jun-15) and the product system (15-Sep-15). Occupation certificates are not applicable as the only buildings are the three new electrical substations and these are not normally occupied.</p>	Compliant	
OPERATION OF PLANT AND EQUIPMENT				
B11	<p>The Applicant shall ensure that all plant and equipment used for the Development is:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	<p>Overall, based on the findings of this audit (including the site inspection – Refer to Section 5.3), Viva Energy appear to be maintaining and operating the equipment in a proper and efficient condition / manner.</p>	Compliant	
PROTECTION OF PUBLIC INFRASTRUCTURE				
B12	<p>Prior to the commencement of construction or demolition, the Applicant shall:</p> <p>(a) prepare a dilapidation report of the public infrastructure in the Vicinity of the Site (including roads, kerbs, footpaths, nature trip, street trees and furniture); and</p> <p>(b) submit a copy of this report to the Secretary and Council.</p>	<p>The dilapidation report prepared by Australian Delapidations (Not sighted, dated 28-Jul-14) was approved by the DP&E on 5-Mar-15 (DP&E approval letter for Pre-Demolition Management Plans, dated 5-Mar-15, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
B13	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged during construction or demolition; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the construction or demolition. 	<p>Viva Energy advised that there has been no damage to public infrastructure requiring repair or compensation and no public infrastructure has required relocation.</p> <p>There are no recorded incidents involving damage to public infrastructure since the previous IEA (Refer to Section 3 and Appendix B).</p> <p>Agency representatives contacted prior to the audit did not identify any concerns regarding damage to public infrastructure (Refer to Section 2.4.1).</p> <p>The available evidence suggests that this consent condition has not been triggered to date.</p>	Not Triggered	
PROTECTION OF PRIVATE AND COMMERCIAL PROPERTY				
B14	<p>The Applicant shall be responsible for the full costs associated with repairing, replacing, cleanup or compensation of any private or commercial property that is physically damaged by construction and demolition.</p>	<p>Viva Energy advised that there has been no damage to private or commercial property caused by construction or demolition activities.</p> <p>There are no recorded incidents involving damage to private or commercial property since the previous IEA (Refer to Section 3 and Appendix B).</p> <p>Agency representatives contacted prior to the audit did not identify any concerns regarding damage to private or commercial property (Refer to Section 2.4.1).</p> <p>The available evidence suggests that this consent condition has not been triggered to date.</p>	Not Triggered	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
PROTECTION OF AUSGRID INFRASTRUCTURE				
B15	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) contact Ausgrid prior to the commencement of construction or demolition, to advise of any planned work within two (2) metres of Ausgrid's underground cables; (b) ensure that no mechanical excavation or boring works occurs within two (2) metres of Ausgrid's underground cables; and (c) ensure that any hand excavation or hand boring works within two (2) metres of Ausgrid's underground cables is classified as <i>Work Near Underground Assets</i> according to WorkCover guidelines and must comply with <i>Ausgrid's Standard: NS156 Working Near or Around Underground Cables</i>. 	<p>Viva Energy advised that the only excavation where this might have been relevant was for the new firefighting water tanks and that this was close to, but outside, the 2 metre limit specified in this condition. The map attached to the relevant CDCL (Cable Drainage Location Drawing) for the excavation (Copy provided) would appear to confirm that this condition has not been triggered.</p>	Not Triggered	
STAGED SUBMISSION OF PLANS OR PROGRAMS				
B16	<p>With the approval of the Secretary, the Applicant may:</p> <ul style="list-style-type: none"> (a) submit any strategy, plan or program required by this consent on a progressive basis; and/or (b) combine any strategy, plan or program required by this consent. 	<p>Approval was obtained from the DP&E for staging submission of the Environmental Management Strategy (EMS) (Letter from DP&E dated 16-Jun-15, copy provided) and the Environmental Management Manual (EMM) (Letter from DP&E for approval of operational stage, dated 17-Sep-15, copy provided – It is noted in this letter that approval had been previously obtained for the construction and demolition activities).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
B17	<p>Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant shall continue to implement existing strategies, plans or programs for operations on site that have been approved by previous consents or approvals.</p> <p>Notes:</p> <ul style="list-style-type: none"> <i>If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program shall clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages and the trigger for updating the strategy, plan or program; and</i> <i>There must be a clear relationship between the strategy, plan or program that are to be combined.</i> 	<p>Viva Energy advised that all existing strategies, plans etc. were replaced since they related to the refinery operation. Only the EPL has continued.</p> <p>It was not possible to verify if any existing strategies, plans etc. continued to be used during the CTCP prior to being replaced under this consent. Therefore, it has been categorised as 'not verified' in accordance with the DP&E's assessment criteria (Refer to Section 2.3). However, no evidence was found to suggest that the operation is non-compliant with this CC (e.g. no old strategies, plans etc. were presented as evidence during the audit and other relevant consents have been surrendered - Refer to CC # B8).</p>	Not Verified	
DISPUTE RESOLUTION				
B18	<p>In the event that a dispute arises between the Applicant and Council or a public authority other than the Department, in relation to a specification or requirement applicable under this consent, the matter must be referred by either party to the Secretary, or if not resolved, to the Minister, whose determination of the dispute shall be final and binding to all parties. For the purpose of this condition, 'public authority' has the same meaning as provided under Section 4 of the EP&A Act.</p>	<p>Viva Energy advised that this consent condition has not been triggered by any party.</p> <p>Agency representatives contacted prior to the audit did not identify any disputes regarding the Development Consent (Refer to Section 2.4.1).</p> <p>The available evidence suggests that this consent condition has not been triggered to date.</p>	Not Triggered	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
COMPLIANCE				
B19	The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.	The Environmental Management Manual (EMM) includes information on the essential environmental activities required to maintain environmental compliance and includes reference to the most relevant consent conditions. The EMM is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project .	Compliant	
B20	The Applicant shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	This was acknowledged by Viva Energy personnel during the audit.	Note	
SECTION 94A CONTRIBUTIONS				
B21	Prior to the issue of a construction certificate, the Applicant shall pay Council \$424,000 as a development contribution, in accordance with Council's <i>Section 94A Development Contributions Plan 2013</i> , to the satisfaction of the Secretary.	The DP&E has confirmed that the requirements of this condition have been met (Letter dated 31-May-16, copy provided). A copy of the payment receipt from Parramatta City Council for the Section 94A Contributions was also sighted (Dated 1-May-15, copy provided).	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
SCHEDULE C ENVIRONMENTAL PERFORMANCE AND MANAGEMENT				
HAZARDS AND RISKS – TERMS OF APPROVAL				
C1	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) carry out the Development in accordance with the PHA; (b) implement all control measures proposed in the PHA; (c) implement all actions proposed by Shell in response to the recommendations from the Buncefield incident investigation report as contained in the supplementary letter received on 28/11/2013 “<i>Buncefield Response to DPI</i>” and (d) implement all proposed actions listed in Shell’s response to the Department’s requests for additional information and clarifications “<i>140709 PHA Review Questions V3 3</i>” (Latest response update received by the DPE on 24/07/2014). 	<ul style="list-style-type: none"> (a) Storage / throughput / utilisation information and control measures identified in the PHA (See (b) below) were spot-checked during the audit. Viva Energy now have a Supply Operations Import Management Tool (Excel spreadsheet) to monitor compliance with the total storage limits in CC # B5. No significant inconsistencies were noted. (b) Control measures from the PHA were spot-checked during the audit. (c) Refer to CC # C6-C8. (d) Refer to CC # C6-C8. <p>The status of this CC has been marked as ‘not verified’ since it was not possible to verify implementation of all control measures and actions (Note: items (c) and (d) are required to be reviewed as part of the Hazard Audit - Refer to CC # C2-C6) and the CTCP is not yet complete (i.e. operation of the EST has not yet commenced).</p>	Not Verified	
HAZARDS AND RISKS – PRE-CONSTRUCTION				
C2	<p>At least one month prior to the commencement of construction or demolition of the proposed development (except for construction of those preliminary works that are outside the scope of the hazard studies), and/or associated demolition works, or within such further period as the Secretary may agree, the Applicant shall submit for the approval of the Secretary, the studies set out under subsections (a) to (d) (the pre-construction studies) of this Condition. Construction, other than for preliminary works, shall not commence until approval has been given by the</p>	<p>The DP&E has conditionally approved the CSS, FSS, HAZOP study and FHA (Letter from DP&E dated 14-Jul-15, copy provided). Specifically:</p> <ul style="list-style-type: none"> (a) The Construction Safety Study was approved subject to implementation of recommendations in Appendix C of the CSS. (b) The Fire Safety Study was approved subject to implementation of recommendations in the FSS and approval of the FSS by FRNSW. The FSS has also 	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>Secretary and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW.</p> <p>(a) <u>Construction Safety Study</u></p> <p>A Construction Safety Study. consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety'. For developments in which the construction period exceeds six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of commissioning of each discrete component/system of the development per the development's commissioning plan (e.g. individual tank systems). The Construction Safety Study shall identify and assess construction and demolition related hazards and the control measures that will be put in place to prevent and/or mitigate such hazards.</p> <p>The Construction/Demolition Safety Study shall include the identification of all significant demolition related hazards. And the assessment of the risks associated with these hazards. The analysis shall cover all phases of the proposed development (e.g. de-inventorisation, demolition/removal of redundant assets and infrastructure, and the construction of new assets), and include all equipment and systems covered by the scope of the project (e.g. demolition of refinery process units, stacks, buildings, tanks, pipelines, etc.). The demolition hazards identification and risk assessment shall particularly examine the following:</p> <ul style="list-style-type: none"> The potential risk impacts from the proposed demolition works onto the existing simultaneous terminal operations; and 	<p>been conditionally approved by FRNSW (Letter from FRNSW dated 10-Jun-16, copy provided).</p> <p>(c) The Hazard and Operability Studies was approved subject to implementation of recommendations.</p> <p>(d) The Final Hazard Analysis was approved subject to:</p> <ul style="list-style-type: none"> Implementation of the proposed risk reduction measures for the SITA facility; Implementation of the recommendations or upgrades proposed in the FHA (Note; The FHA did not include any recommendations / upgrades); Ensuing that the 50 per million per year contour remains within the operating area; and, Maintaining the tank overfill safety integrity function according to IEC 61511. <p>Approval has been received for each study; however, the status of this CC has been marked as 'not verified' since some recommendations are yet to be implemented. The status of these recommendations is to be reviewed during hazard audits (Refer to CC # C6-C8).</p>		

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> • The potential for any of the identified demolition related risks to alter, during the proposed works, individually or through interaction with existing operations, the offsite risk profile of the facility as assessed in the PHA. <p>(b) <u>Fire Safety Study</u> A Fire Safety Study that shall cover the relevant aspects of the Department of Planning's Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines' and the New South Wales Government's 'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'. The study shall also be submitted for approval to Fire and Rescue NSW. The study shall reflect the "end-state terminal" fire prevention, detection, and protection arrangements.</p> <p>(c) <u>Hazard and Operability Study</u> A Hazard and Operability Study for the proposed development, chaired by a qualified person, independent of the development, approved by the Secretary prior to commencement of the study. The study shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'. The study report must be accompanied by a program for the implementation of all recommendations made in the report. If the Applicant intends to defer the implementation of a recommendation. reasons must be documented.</p> <p>(d) <u>Final Hazard Analysis</u> A Final Hazard Analysis of the proposed development, consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 6,</p>			

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>'Hazard Analysis'. The FHA shall report on the implementation of the recommendations from the Preliminary Hazard Analysis. The FHA also shall:</p> <ul style="list-style-type: none"> • Demonstrate that the tank overfill protection system (for all tanks) reduces the risk so far as reasonably practicable without the use of gas detection in the bunds. The following shall be included as part of this demonstration requirement: <ul style="list-style-type: none"> ○ A sample bow-tie analysis of the tank overfill protection system; ○ A safety integrity level (SIL) allocation and verification report for the tank overfill protection system; • Include the assessment of all hazards from the Parramatta Terminal; • Confirm the quantity and type of dangerous goods stored in the onsite warehouses and include the associated warehouse fire analysis; • Include the number and assessment of LPG tanker transfer operations. The following items shall be included in the analysis: <ul style="list-style-type: none"> ○ The analysis of all butane pool fire scenarios; ○ The analysis of leaks from the butane road tanker pumps; • Justify the limitation of hole sizes (i.e. a maximum of 100 mm) considered in the analysis, or revise the model accordingly to include larger hole sizes appropriate to the actual pipe diameters; 			

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> Re-evaluate and confirm all relevant data and assumptions from the Preliminary Hazard Analysis; and Re-evaluate and confirm all control measures proposed for the prevention and mitigation of incidents. 			
HAZARDS AND RISKS – PRE-COMMISSIONING				
C3	<p>The Applicant shall develop and implement the plans and systems set out under subsections (a) to (b) of this Condition. No later than two months prior to the commencement of commissioning of any component of the proposed development, or within such further period as the Secretary may agree, the Applicant shall submit, for the approval of the Secretary, documentation describing those plans and systems. Commissioning shall not commence until approval has been given by the Secretary.</p> <p>(a) <u>Emergency Plan</u> A comprehensive Emergency Plan and detailed emergency procedures for the proposed development (end-state terminal). This plan shall include consideration of the safety of all people outside of the development who may be at risk from the development. The plan shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'. The plan shall include interim emergency management arrangements (if any) which may be introduced between the commencement of commissioning and reaching end-state terminal operations.</p>	The DP&E has approved the Emergency Response Plan and Safety Management System for Stage 1 (Letter to Viva Energy from DP&E dated Feb-16, copy provided) and Stage 2 (Letter to Viva Energy from DP&E dated May-16, copy provided).	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>(b) <u>Safety Management System</u></p> <p>A document setting out a comprehensive Safety Management System, covering all on-site 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 Secretary upon request. The Safety Management System shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'.</p> <p>An inspection, testing and preventive maintenance program should be developed, implemented and maintained to ensure the reliability and availability of the key safety critical equipment is, at a minimum, consistent with the data estimated in the PHA.</p>			
HAZARDS AND RISKS – PRE-STARTUP				
C4	<p><u>Pre-Startup Compliance Report</u></p> <p>One month prior to the commencement of operation of each asset or system, the Applicant shall submit to the Secretary, a report detailing compliance with Conditions C1, C2 and C3 of this schedule, including:</p> <p>(a) dates of study/plan/system submission, approval, commencement of construction and commissioning;</p> <p>(b) actions taken or proposed, to implement the recommendations and safety-related control measures in the studies/plans/systems;</p> <p>(c) a pre-startup safety review/checklist</p>	<p>The DP&E has acknowledged that Viva Energy's Pre-Startup Compliance Report satisfies consent condition C4 (Email from DP&E dated 25 May 2016, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	(d) responses to each requirement imposed by the Secretary under Condition C6 of this consent.			
HAZARDS AND RISKS – POST-STARTUP – Post Startup Compliance Report				
C5	<p><u>Post-Startup Compliance Report</u></p> <p>Three months after the commencement of operation of the first asset or system covered by this consent, the Applicant shall submit to the Secretary, a report verifying that:</p> <ul style="list-style-type: none"> (a) the Emergency Plan required under Condition C3(a) is effectively in place and that at least one emergency exercise has been conducted; and (b) the Safety Management System required under Condition C3(b) has been fully implemented and that records required by the system are being kept. 	This report has not been prepared as the CTCP is not yet complete (i.e. operation of the EST has not yet commenced).	Not Triggered	
HAZARDS AND RISKS – ONGOING – Hazard Audit				
C6-C8	<p><u>Hazard Audit</u></p> <p>Within twelve months of the date of this consent and every three years thereafter, or at such intervals as the Secretary may agree, the Applicant shall carry out a comprehensive Hazard Audit of the proposed development and within one month of each audit submit a report to the Secretary.</p> <p>The audits shall be carried out at the Applicant's expense by a qualified person or team, independent of the Development, approved by the Secretary prior to commencement of each audit. Hazard Audits shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines' (HIPAP No. 5).</p> <p>The audit reports shall, in addition to the requirements provided in HIPAP No. 5:</p>	The previous Hazard Audit was undertaken in 2016 and has been approved by the DP&E (Letter from DP&E dated 14-Oct-16, copy provided).	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>(a) verify implementation of all actions proposed by Shell in response to the recommendations from the Buncefield incident investigation report per the supplementary letter from Shell received on 28/11/2013 "<i>Buncefield Response to DPI</i>".</p> <p>(b) verify implementation of all actions listed in Shell's response to the Department's requests for additional information and clarifications "<i>140709 PHA Review Questions V3 3</i>" (Latest response update received by the DPE on 24/07/2014).</p> <p>(c) verify that an inspection, testing and preventative maintenance program has been developed, implemented and maintained to ensure the reliability and availability of the key safety critical equipment.</p> <p>(d) confirm that the throughput and storage quantities of potentially hazardous materials are consistent with the PHA.</p> <p>(e) verify that the maximum fill levels in Tank 35 and Tank 42 are being maintained to comply with the maximum bund retention capacity; and</p> <p>(f) verify implementation of any measures arising from the reports submitted in respect of Conditions C1 to C5 of this schedule.</p> <p>The audit report must be accompanied by a program for the implementation of all recommendations made in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.</p>			

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
HAZARDS AND RISKS – ONGOING – Further Requirements				
C9	<p><u>Further Requirements</u> The Applicant shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the reports submitted in respect of Conditions C1 to C6 of this Schedule inclusive, within such time as the Secretary may agree.</p>	Refer to CC # C2.	Not Verified	
HAZARDS AND RISKS – WORKCOVER REQUIREMENTS				
C10	Prior to finalising the design, the Applicant shall meet with WorkCover to discuss preventative and recovery barriers in the tank farms and the implementation of the relevant findings and recommendations of the Buncefield investigation.	This was not verified; however, implementation of the relevant findings and recommendations of the Buncefield investigation is required during Hazard Audits (Refer to CC # C6-C8).	Not Verified	
C11	Before finalising the FHA, the Applicant shall meet with WorkCover to agree relevant LPG vessel failure modes and their frequency.	This was not verified; however, there is no bulk storage of petroleum gases at the site.	Not Verified	
DEMOLITION – Approvals/Licensing				
C12	The Applicant shall ensure that all demolition associated with the Development is carried out in accordance with <i>Australian Standard AS 2601:2001: The Demolition of Structures</i> , or its latest version and the requirements of the <i>Work Health and Safety Regulation, 2011</i> .	<p>Demolition of the refinery units was undertaken prior to the previous IEA under one contract with Liberty Industrial Pty Ltd. Viva Energy provided a construction liaison contact (Sighted example correspondence to / from Viva Energy in early 2015, copy not provided).</p> <p>Demolition of the five stacks was undertaken on 21 February 2016 (i.e. prior to the previous IEA).</p> <p>The pre-demolition management plans, which included the Demolition Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided). Also refer to CC # C14.</p>	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		<p>Future demolition of Tank Farms A2 (Jet Fuel) and A3 (Diesel) will require updating and re-issuing of a Demolition Management Plan.</p> <p>It was not possible to verify that all demolition was undertaken in accordance with AS 2601; however, this standard is listed as a reference in the Demolition Work (Management) Plan and no evidence of non-compliance was noted (A similar finding was included in the previous IEA).</p>		
C13	The Applicant shall ensure that all demolition is undertaken by licensed demolition experts in accordance with the requirements of WorkCover and the <i>Work Health and Safety Regulation, 2011</i> .	It is reported on the Liberty Industrial website that they hold an “Unrestricted Demolition License” in NSW (http://libertyindustrial.com.au/Deconstruction/Industrial-Demolition/). This was not verified.	Not Verified	
DEMOLITION – Demolition Management Plan				
C14	<p>The Applicant shall prepare and implement a Demolition Management Plan, to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by a suitably qualified and experienced demolition contractor;</p> <p>(b) be prepared in consultation with Council, EPA, WorkCover and RMS and be approved by the Secretary prior to the commencement of any demolition;</p> <p>(c) identify the statutory requirements that apply to the demolition works;</p> <p>(d) provide specific details of the proposed demolition process and methods, structures to be demolished, a program for the sequencing of demolition and details of materials handling and management;</p>	<p>The Demolition Management Plan was prepared by Liberty Industrial (demolition contractor). Note: This document is labelled ‘Demolition Work Plan’ (Copy provided).</p> <p>The pre-demolition management plans, which included the Demolition Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>Future demolition of Tank Farms A2 (Jet Fuel) and A3 (Diesel) will require updating and re-issuing of a Demolition Management Plan.</p> <p>Example reports for environmental monitoring undertaken demolition were sighted for:</p> <ul style="list-style-type: none"> Explosive felling of the catalytic cracking unit (Dated 16-Jun-15, copy provided). Stack blasting (Dated 16-Mar-16, copy provided). 	<p>Compliant (Completed Demolition)</p> <p>Not Triggered (Future Demolition)</p>	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> (e) detail the process and techniques for demolishing the key pieces of redundant equipment and details of how this would be managed; (f) describe in detail the procedures for independent testing and analysis (by a NATA accredited laboratory) of all items to be demolished or disturbed during construction for the presence of asbestos; (g) include copies of asbestos clearance certificates from an independent Licensed Asbestos Assessor for all items to be demolished; (h) describe the role, responsibility, authority and accountability of all key personnel involved in the management of the demolition; (i) describe in general how the environmental performance of the demolition would be monitored and managed; and (j) describe the consultation procedures for informing the community and relevant agencies about the demolition works and environmental performance, including procedures for responding to, recording and handling complaints and non-compliances. 	<p>The Demolition Work Plan and Complaints Register are available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>The Complaints Register includes records of complaints from 2015 onwards and no noise complaints have been recorded since the previous IEA (Also refer to Section 3). The process for management of complaints is included in Section 3.3 of the EMS (Copy provided).</p>		
DEMOLITION – Stack Demolition Management Plan				
C15	<p>The Applicant shall prepare and implement a Stack Demolition Management Plan, to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and licensed demolition expert whose appointment has been endorsed by the Secretary; 	<p>Demolition of the five stacks was undertaken on 21 February 2016 (i.e. prior to the previous IEA).</p> <p>The Explosive Demolition Event 2 Management Plan was approved by the DP&E on 10-Feb-16 (DP&E approval letter, dated 10-Feb-16, copy provided).</p> <p>An example report for environmental monitoring undertaken during stack blasting was sighted (Dated 16-Mar-16, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> (b) be prepared in consultation with Council, EPA, WorkCover and RMS and be approved by the Secretary prior to the demolition of the five (5) chimney stacks; (c) be independently reviewed by a certified structural engineer, including a review of the demolition methodology and blast calculations; (d) detail the process, timing and techniques for demolition of each chimney stack and how this would be managed; (e) include copies of asbestos clearance certificates for each stack, prepared by a Licensed Asbestos Assessor; (f) describe the role, responsibility, authority and accountability of all key personnel involved in the management of the stack demolition; (g) describe in general how the environmental performance of the stack demolition would be monitored and managed; (h) describe the specific consultation procedures for informing the community, nearby businesses and relevant agencies about the timing and method for stack demolition works, any required road closures or exclusion areas and environmental management, including procedures for responding to, recording and handling complaints and non-compliances; and (i) detail the timeframe for removal of the waste materials generated by stack demolition, including the requirement for any interim measures to manage dust and surface water. 			

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
ASBESTOS MANAGEMENT – Asbestos Handling, Transport, Disposal and Clearance				
C16	<p>The Applicant shall ensure that any asbestos encountered during construction and demolition is monitored, handled, transported and disposed of by appropriately qualified and licensed contractors in accordance with the requirements of WorkCover and relevant guidelines, including:</p> <ul style="list-style-type: none"> (a) <i>Work Health and Safety Regulation 2011;</i> (b) <i>Model Code of Practice – How to Manage and Control Asbestos in the Workplace, 2011 Safe Work Australia;</i> (c) <i>Model Code of Practice – How to Safely Remove Asbestos, 2011 Safe Work Australia;</i> and (d) <i>Protection of the Environment Operations (Waste) Regulation 2005.</i> 	<p>Viva Energy advised that Asbestos has been encountered during the CTCP, as recorded in the Asbestos Register (Copy provided), and most of the identified Asbestos has now been removed. Viva Energy advised that new Asbestos has not been encountered since the previous IEA.</p> <p>It is reported in the Asbestos Register that the remaining identified Asbestos was last inspected in January or February 2017. The 2017 inspection survey report, which was undertaken by Pickford & Rhyder Consulting, was also sighted (Copy provided).</p> <p>Viva Energy advised that new tenders for Asbestos removal will be issued for: (i) the next phase of the demolition; and (ii) removal of Asbestos from other locations (switch rooms etc.).</p> <p>It was not possible to verify that all encountered Asbestos has been managed in accordance with this CC; however, this condition was categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3). Viva Energy’s commissioning of an independent inspection in 2017 was a key factor for this categorisation.</p>	Compliant	
CONTAMINATION – Contamination Management Plan				
C17	The Applicant shall prepare and implement a Contamination Management Plan for construction and	The pre-demolition management plans, which included the Contamination Management Plan, were approved by	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>demolition, to the satisfaction of the Secretary. The Plan shall:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced expert; (b) be prepared in consultation with the EPA; (c) be approved by the Secretary prior to the commencement of construction or demolition; (d) identify all potential contaminants that could be disturbed, mobilised and discharged to receiving waters during construction and demolition; (e) detail the procedures for testing, classifying, handling, storing and disposing of contaminated soils and groundwater encountered in excavations; (f) detail measures for periodically testing surface water run-off that may accumulate in excavations, and the procedures for transfer of contaminated water to the on-site wastewater treatment plant; and (g) detail any required updates to the <i>Soil and Groundwater Management Plan Viva Clyde Refinery and Parramatta Terminal, Durham Street, Rosehill, 2010</i> to address construction and demolition. 	<p>the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>Note: The Contamination Management Plan is addressed in the Soil and Water Management Plan, which is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <ul style="list-style-type: none"> (e) Potentially contaminated soils are listed in the Soil Management Spreadsheet (Copy provided). Test data is included in this spreadsheet and most are flagged for potential re-use. (f) Viva Energy advised that there have been no significant excavations (i.e. other than small footings) and therefore have not had to manage water accumulation in an excavation (Not verified). <p>Note: Water that had accumulated in the 'Mobil' tank farm area was tested and disposed off-site (Verified by sighting Viva Waste Spreadsheet and list of transport certificates). This pre-dates the previous IEA.</p> <ul style="list-style-type: none"> (g) Monitoring has continued throughout the demolitions and construction activities (Refer to EPL # U1.1). An example monitoring report for Quarter 4 (2016) was sighted (Copy provided). It is concluded in this report that groundwater conditions beneath the site have not changed significantly. <p>This condition was categorised as 'compliant' since sufficient evidence was provided to demonstrate that the "intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit" (i.e. as per the DP&E's assessment criteria - Refer to Section 2.3).</p>		

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
CONTAMINATION – Removal of Sub-Grade Infrastructure				
C18	The Applicant shall undertake any removal of underground petroleum storage tanks or other infrastructure in accordance with the <i>Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008</i> or its latest version.	<p>It is reported in the EIS that “the scope of the demolition activities is for demolition to ground level only which may include some removal of existing foundations below the surface”.</p> <p>Viva Energy advised that a separate DA will cover any sub-grade assets (e.g. small UG tanks from old petrol bowsers).</p> <p>No evidence of the removal of underground petroleum storage tanks or other infrastructure was sighted during the site inspection; therefore, this has been categorised as ‘not triggered’.</p>	Not Triggered	
C19	The Applicant shall provide a contamination report to the EPA detailing any site contamination investigation carried out in the immediate vicinity of any subgrade asset removal. This report shall be provided to the EPA on completion of the removal of sub-grade infrastructure.	Refer to CC # C18.	Not Triggered	
CONTAMINATION – Acid Sulphate Soils Management Plan				
C20	The Applicant shall prepare and implement an Acid Sulphate Soil Management Plan for construction and demolition in accordance with the NSW State Government's <i>Acid Sulphate Soils Manual 1998</i> .	<p>The Soil and Water Management Plan, which included the Acid Sulphate Soils Management Plan, was approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>The Acid Sulphate Soils Management Plan is included in Soil and Water Management Plan, which is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>Viva Energy advised that only surface fill has been disturbed. No evidence of sub-grade disturbance of the areas shown in Figure 17-1 of the EIS (which is appended</p>	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s																																		
		to the Soil and Water Management Plan) was sighted during the site inspection; however, some of these areas were not accessible and the facility is very large. Therefore, this has been categorised as 'not verified'.																																				
NOISE – Noise Limits																																						
C21	<p>The Applicant shall ensure that noise from the operation does not exceed the limits in Table 1.</p> <p>Table 1: Noise Limits dB(A)</p> <table border="1" data-bbox="248 671 896 1201"> <thead> <tr> <th rowspan="2">Noise Receiver Location</th> <th rowspan="2">Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{Aeq(15min)}</th> <th>L_{A1(1min)}</th> </tr> </thead> <tbody> <tr> <td>R1-R3</td> <td>Any residence in the suburb of Rosehill</td> <td>38</td> <td>38</td> <td>35</td> <td>45</td> </tr> <tr> <td>R4</td> <td>Any residence in the suburb of Silverwater</td> <td>37</td> <td>37</td> <td>36</td> <td>45</td> </tr> <tr> <td>R5</td> <td>Any residence in the suburb of Newington</td> <td>36</td> <td>36</td> <td>35</td> <td>45</td> </tr> <tr> <td>R6-R7</td> <td>Any residence in the suburb of Rydalmere</td> <td>40</td> <td>40</td> <td>36</td> <td>45</td> </tr> </tbody> </table> <p><i>Notes:</i></p> <ul style="list-style-type: none"> To identify a noise receiver location, refer to the figure in Appendix D; and Noise generated during operation is to be measured in accordance with the relevant procedures and 	Noise Receiver Location	Location	Day	Evening	Night		L _{Aeq(15min)}	L _{Aeq(15min)}	L _{Aeq(15min)}	L _{A1(1min)}	R1-R3	Any residence in the suburb of Rosehill	38	38	35	45	R4	Any residence in the suburb of Silverwater	37	37	36	45	R5	Any residence in the suburb of Newington	36	36	35	45	R6-R7	Any residence in the suburb of Rydalmere	40	40	36	45	<p>Note: There are no noise limits in the EPL (Refer to Section 5.2) and noise monitoring is only undertaken during specific activities with the potential to create high noise levels (such as blasting). Example reports for noise monitoring undertaken (primarily at locations on site) during blasting were sighted for:</p> <ul style="list-style-type: none"> Explosive felling of the catalytic cracking unit (Dated 16-Jun-15, copy provided). Stack blasting (Dated 16-Mar-16, copy provided). <p>The Complaints Register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>This Complaints Register includes records of complaints from 2015 onwards and no noise complaints have been recorded since the previous IEA (Also refer to Section 3).</p>	Compliant	
Noise Receiver Location	Location			Day	Evening	Night																																
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CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s											
	<i>exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.</i>														
NOISE – Hours of Work															
C22	<p>The Applicant shall comply with the hours detailed in Table 2, unless otherwise agreed in writing by the EPA and the Secretary.</p> <p>Table 2: Construction, Demolition & Operation Hours</p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Construction and Demolition</td> <td>Monday – Friday</td> <td>7:00am to 6:00pm</td> </tr> <tr> <td>Saturday</td> <td>8:00am to 5:00pm</td> </tr> <tr> <td>Operation</td> <td>Monday – Sunday</td> <td>24 hours</td> </tr> </tbody> </table>	Activity	Day	Time	Construction and Demolition	Monday – Friday	7:00am to 6:00pm	Saturday	8:00am to 5:00pm	Operation	Monday – Sunday	24 hours	<p>Operation of the Terminal is permitted at any time.</p> <p>It was not possible to verify that all construction and demolition activities have been undertaken in accordance with the time periods listed in CC # C22. However:</p> <ul style="list-style-type: none"> • There are no recorded noise complaints since the previous IEA (Refer to Section 3.1). • The EMM (Copy accessed from website, dated 9-May-18) includes the permitted time periods, with a cross-reference to this consent condition. • Viva Energy provided evidence of obtaining permission to undertake such activities at other times (Example approval letter sighted for construction works outside standard hours on 11 and 18 March 2018 - Letter from DP&E dated 8-Mar-18, copy provided). <p>This condition was categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3).</p>	Compliant	
Activity	Day	Time													
Construction and Demolition	Monday – Friday	7:00am to 6:00pm													
	Saturday	8:00am to 5:00pm													
Operation	Monday – Sunday	24 hours													
C23	<p>Construction and demolition outside of the hours identified in condition C22 may be undertaken in the following circumstances:</p> <p>(a) works that are inaudible at the nearest sensitive receivers;</p>	<p>Viva Energy advised that DP&E has been informed whenever construction and demolition has occurred outside of the hours identified in condition C22, irrespective of the circumstances specified in (a) to (e).</p>	Compliant												

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>(b) works that are consistent with Viva’s existing maintenance procedures and are in accordance with the EPL;</p> <p>(c) works agreed to in writing by the EPA or the Secretary;</p> <p>(d) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or</p> <p>(e) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm.</p>	<p>Viva Energy provided evidence of obtaining permission to undertake construction and demolitions activities at other times. For example:</p> <ul style="list-style-type: none"> • Construction works outside standard hours on 11 and 18 March 2018 (Approval letter from DP&E dated 8-Mar-18, copy provided). • The Explosive Demolition Event 2 Management Plan for demolition of the five stacks was approved by the DP&E on 10-Feb-16 (DP&E approval letter, dated 10-Feb-16, copy provided). This included approval of blasting for demolition on Sunday 21 February 2016, which was outside the time limits specified in CC # C26. <p>The Complaints Register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>This Complaints Register includes records of complaints from 2015 onwards and no noise complaints have been recorded since the previous IEA (Also refer to Section 3).</p> <p>This condition was categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3).</p>		
NOISE – Operating Conditions				
C24	<p>The Applicant shall:</p> <p>(a) implement all reasonable and feasible noise management and mitigation measures to prevent and</p>	<p>The requirements of this CC are included in Section 13.1 of the Health Safety Security and Environment (HSSE) Plan (Copy provided).</p> <p>Noise suppression equipment has not been provided for fixed equipment associated with the CTCP / EST (i.e. no</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>minimise operational, low frequency and traffic noise generated during operation;</p> <p>(b) maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant that may generate offensive noise is not used operationally until fully repaired; and</p> <p>(c) regularly assess noise monitoring data and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of this consent.</p>	<p>noise enclosures); however, this has not resulted in any noise complaints (See below). Item (b) does not appear to have been triggered.</p> <p>Noise monitoring is only undertaken during specific activities with the potential to create high noise levels (such as blasting) (Refer to CC # C21).</p> <p>The Complaints Register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>This Complaints Register includes records of complaints from 2015 onwards and no noise complaints have been recorded since the previous IEA (Also refer to Section 3).</p> <p>This condition was categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3).</p>		
NOISE – Construction & Demolition Noise Management Plan				
C25	<p>The Applicant shall prepare and implement a Noise Management Plan for construction and demolition. The plan shall:</p> <p>(a) be prepared and implemented by a suitably qualified and experienced expert;</p> <p>(b) be prepared in consultation with the EPA;</p> <p>(c) be approved by the Secretary prior to the commencement of construction or demolition;</p> <p>(d) describe the measures that will be implemented to minimise noise from construction and demolition including:</p>	<p>The pre-demolition management plans, which included the Noise Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>Viva Energy advised that all blasting has now been completed and it is proposed to demolish Tank Farms A2 (Jet Fuel) and A3 (Diesel) with an excavator rather than by blasting.</p> <p>The Construction and Demolition Noise and Vibration Management Plan and Complaints Register are available on the CTCP website:</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> • all reasonable and feasible measures being employed on site; • maintenance of equipment to ensure that it is in proper and efficient condition; • procedures to ensure that all construction and demolition equipment does not operate simultaneously, where practicable; • traffic noise is effectively managed; • identification of high noise generating construction and demolition works, including proposed times when these works will be carried out, respite periods and mitigation measures, including the use of temporary noise barriers where necessary; <p>(e) includes a noise monitoring program that:</p> <ul style="list-style-type: none"> • is capable of evaluating noise impacts from construction and demolition; • includes a protocol for determining exceedances of relevant noise criteria; and • includes procedures for responding to complaints. 	<p>https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>This Complaints Register includes records of complaints from 2015 onwards and no noise complaints have been recorded since the previous IEA (Also refer to Section 3). The process for management of complaints is included in Section 3.3 of the EMS (Copy provided).</p>		
BLASTING – Blasting Hours				
C26	<p>The Applicant shall only carry out blasting on site between 9:00am and 5:00pm Monday to Friday inclusive. Blasting is not permitted on Sundays, public holidays or at any other time without the written approval of the Secretary.</p>	<p>Explosive demolition of the refinery units and the five stacks was undertaken prior to the previous IEA (Also refer to CC # C12-C15).</p> <p>The Explosive Demolition Event 2 Management Plan for demolition of the five stacks was approved by the DP&E on 10-Feb-16 (DP&E approval letter, dated 10-Feb-16, copy provided). This included approval of blasting for demolition on Sunday 21 February 2016, which was outside the time limits specified in CC # C26.</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		Viva Energy advised that blasting is not proposed for the future demolition of Tank Farms A2 (Jet Fuel) and A3 (Diesel).		
BLASTING – Blast Management Plan				
C27	<p>The Applicant shall prepare and implement a Blast Management Plan for demolition, to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced expert; (b) be prepared in consultation with the EPA; (c) be approved by the Secretary prior to the commencement of blasting; (d) describe the program for undertaking test blasts to determine appropriate blasting parameters to ensure compliance with the limits in this consent; (e) describe the measures that would be implemented to: <ul style="list-style-type: none"> • ensure compliance with the blasting limits in this consent; • protect the safety of people in the surrounding area; • protect public and private infrastructure and property in the surrounding area from any damage; and • minimise the dust and fume emissions of any blasting; and (f) include a monitoring program for evaluating and reporting on compliance with the blasting limits in this consent; and 	<p>Explosive demolition of the refinery units and the five stacks was undertaken prior to the previous IEA (Also refer to CC # C12-C15).</p> <p>The Explosive Demolition Event 2 Management Plan for demolition of the five stacks was approved by the DP&E on 10-Feb-16 (DP&E approval letter, dated 10-Feb-16, copy provided).</p> <p>Example reports for environmental monitoring undertaken demolition were sighted for:</p> <ul style="list-style-type: none"> • Explosive felling of the catalytic cracking unit (Dated 16-Jun-15, copy provided). • Stack blasting (Dated 16-Mar-16, copy provided). 	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	(g) describes the procedures for early notification to the public, nearby businesses and relevant authorities of proposed blasting times, duration and any required exclusion areas and/or road closures.			
AIR QUALITY – Dust Minimisation				
C28	The Applicant shall carry out all reasonable and feasible measures to minimise dust generated during construction, demolition and operation.	<p>A dust and erosion control coating (Product Name: Total Ground Control Plus, copy of SDS provided), was applied in November 2016 to the former refinery processing areas. The supplier advised that the quantity applied (1,000 litres per hectare) would be adequate for up to two years (Email dated 17-Aug-16, copy provided). Some of this green coloured material was sighted during the site inspection.</p> <p>Grass has been grown on the former Mobil tank farm site to minimise dust generation and run-off of suspended solids (Refer to Section 5.3, Table 9, ID # 1).</p> <p>There have been no recorded dust complaints from neighbours.</p> <p>This has been categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3). However, some dry areas were sighted during the site inspection (Refer to Section 5.3, Table 9, ID # 5) and it will be important for dust suppression measures to be maintained on an ongoing basis (including potential re-application of the dust and erosion control coating).</p>	Compliant	<p>2018/02 – Viva Energy should ensure measures to minimise the potential generation of airborne dust are maintained on an ongoing basis (including potential re-application of the dust and erosion control coating).</p> <p>(Refer to Section 5.1 - Table 7, CC # C28 and Section 5.2 - Table 8, EPL # O3.1)</p>

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
AIR QUALITY – Offensive Odour				
C29	The Applicant shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.	<p>Odour from the storage tanks is minimised by the use of Geodome and floating roofs.</p> <p>No offensive odours were detected during the site inspection.</p> <p>There have been no complaints associated with the CTCP relating to odour since the previous IEA (Refer to Section 3). Note: Only one complaint is recorded on the publicly available complaints register and this predates the previous IEA.</p> <p>The Complaints Register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p>	Compliant	
AIR QUALITY – Operational Air Quality Monitoring Program				
C30	<p>The Applicant shall prepare and implement an Air Quality Monitoring Program for the operation. The plan shall:</p> <ul style="list-style-type: none"> (a) be prepared and implemented by a suitably qualified and experienced expert; (b) be prepared in consultation with the EPA; (c) be submitted to the Secretary for approval within 3 months of the date of this consent; (d) describe an air quality monitoring program that is capable of evaluating the performance of the operation and determining compliance with key performance indicators agreed in consultation with the EPA; (e) includes record keeping, a complaints register and response procedure and compliance reporting. 	<p>The Operational Air Quality Monitoring Program was approved by the DP&E on 01-Oct-15 (DP&E approval letter, dated 01-Oct-15, copy provided).</p> <p>The complaints register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>This includes records of complaints from 2015 onwards (Also refer to Section 3). The process for management of complaints is included in Section 3.3 of the EMS (Copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
AIR QUALITY – Construction & Demolition Air Quality Management Plan				
C31	<p>The Applicant shall prepare and implement an Air Quality Management Plan for construction and demolition.</p> <p>The plan shall:</p> <ul style="list-style-type: none"> (a) be prepared and implemented by a suitably qualified and experienced expert; (b) be approved by the Secretary prior to the commencement of construction or demolition and be provided to the EPA; (c) describe the measures that would be implemented on site to ensure: <ul style="list-style-type: none"> • the control of air quality and odour impacts; • that these controls remain effective over time; • that all reasonable and feasible air quality management practice is employed; • the air quality impacts are minimised during adverse meteorological conditions and extraordinary events; and • compliance with the relevant conditions of this consent. (d) includes record keeping, a complaints register and compliance reporting. 	<p>The pre-demolition management plans, which included the Air Quality Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>The Air Quality Management Plan and Complaints Register are available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>The Complaints Register includes records of complaints from 2015 onwards and there are no records of complaints due to air quality (including odours) since the previous IEA (Also refer to Section 3). The process for management of complaints is included in Section 3.3 of the EMS (Copy provided).</p> <p>This condition was categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3).</p>	Compliant	
AIR QUALITY – Meteorological Monitoring				
C32	<p>During the life of the Development, the Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements of the EPA.</p>	<p>Meteorological data may be obtained from the Bureau of Meteorology station at North Parramatta.</p> <p>Note: Prior to December 2011, the EPL included a condition to monitor weather data on site. This was removed at the time of licence variation number 1503483</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		and on-site weather monitoring is no longer required in the EPL.		
ENERGY EFFICIENCY AND GREENHOUSE GAS EMISSIONS				
C33	The Applicant shall implement all reasonable and feasible measures to minimise energy use and greenhouse gas emissions during construction, demolition and operation.	Viva Energy advised that some activities have been introduced to reduce energy use (e.g. limited number of lights, only leave lights on at night in operational areas, solar powered lights in some areas). Lights in the main office were observed to be turned off and example solar lights were observed during the site inspection (Refer to Section 5.3, Table 9, ID # 2).	Compliant	
TRANSPORT AND ACCESS – Operating Conditions				
C34	The Applicant shall ensure that: <ul style="list-style-type: none"> (a) the operation does not result in any vehicles queuing on the public road network; (b) heavy vehicles and bins associated with operation do not park or stand on local roads or footpaths in the vicinity of the site; (c) all loading and unloading of materials is carried out on site; (d) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times; (e) all trucks entering or leaving the site with loads have their loads covered; (f) trucks associated with operation do not track dirt onto the public road network; and (g) heavy vehicles use designated routes to minimise impacts on the local and regional road network. 	<p>It was not possible to verify compliance with this condition, however:</p> <ul style="list-style-type: none"> • Very low traffic, with no queuing of vehicles, was observed in the vicinity of the facility during the site inspection. No trucks were observed entering or leaving the facility • No loading or unloading of vehicles was observed outside the terminal area. <p>Viva Energy advised that street sweepers are used on as needs basis (Not Verified).</p> <p>Viva Energy advised that there are no wash bays for trucks at the Clyde Terminal, although there is a truck wash area at the Parramatta Terminal if needed (Not verified).</p>	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
TRANSPORT AND ACCESS – Car Parking				
C35	The Applicant shall provide sufficient parking facilities on-site, including for heavy vehicles, for construction, demolition and operational personnel, to ensure that traffic associated with the Development does not utilise public and residential streets or public parking facilities.	<p>The facility is very large with multiple parking locations (e.g. main office car park, behind the main office, outside the main control room and near the gate house).</p> <p>There are no designated truck parking areas on site; however, internal roads can be closed off if needed during work and the truck can be parked on the roadway. This was observed during the site inspection.</p>	Compliant	
TRANSPORT AND ACCESS – Traffic Management Plan				
C36	<p>The Applicant shall prepare and implement a Traffic Management Plan for construction and demolition, to the satisfaction of the Secretary. The plan must:</p> <p>(a) be prepared by a suitably qualified and experienced person;</p> <p>(b) be prepared in consultation with Council and RMS;</p> <p>(c) be approved by the Secretary prior to the commencement of construction or demolition;</p> <p>(d) detail the measures that would be implemented to ensure road safety and network efficiency during construction and demolition;</p> <p>(e) detail heavy vehicle routes, access and parking arrangements;</p> <p>(f) include a Driver Code of Conduct to:</p> <ul style="list-style-type: none"> • minimise the impacts of construction and demolition on the local and regional road network; • minimise conflicts with other road users; • ensure truck drivers use specified routes; 	<p>The pre-demolition management plans, which included the Traffic Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>The Traffic Management Plan is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>(d) Measures are included in the Traffic Management Plan (e.g. driver code of conduct, securing of loads).</p> <p>(e) Heavy vehicle access routes and staff parking areas for construction and demolition are shown on Figure D-5A in the Traffic Management Plan.</p> <p>(f) The driver code of conduct is included in Traffic Management Plan.</p> <p>(g) It is reported in the Traffic Management Plan that monitoring is based on complaints. No complaints have been recorded since the previous IEA (Refer to Section 3).</p> <p>(h) This is included as part of the driver code of conduct.</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>(g) include a program to monitor the effectiveness of these measures; and</p> <p>(h) if necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.</p>	<p>This condition was categorised as 'compliant' since sufficient evidence was provided to demonstrate that the "intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit" (i.e. as per the DP&E's assessment criteria - Refer to Section 2.3). The absence of reported complaints and low observed traffic movements (Refer to CC # C34) were a key factors for this categorisation.</p>		
FLOODING – Flood Design and Structural Certification				
C37	<p>The Applicant shall ensure that all new buildings and structures, and additions to existing buildings and structures are constructed in accordance with the relevant requirements of the City of Parramatta's Local Floodplain Risk Management Policy, June 2006.</p>	<p>It is reported in the final Flood Assessment Report (Copy provided, dated 2-Feb-16) that "only Sub32 will be located in a high hazard area (1% AEP)." This report was approved by Parramatta Council (Refer to CC # C39) and substation 32 was sighted during the site inspection. Substation 32 is elevated above ground level (Refer to Section 5.3, Table 9, ID # 3).</p>	Compliant	
C38	<p>New electrical substations shall be constructed above the 1% Annual Exceedance Probability (AEP) flood level with an appropriate freeboard determined in consultation with Council and to the satisfaction of the Secretary.</p>	<p>Approval of construction of the three new electrical substations was provided by the DP&E on 29-Jul-15 (DP&E approval letter, dated 29-Jul-15, copy provided). It is reported in this letter that "on 24 July 2015 Council advised that it was satisfied that Condition C38 had been satisfied".</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
FLOODING – Flood Study				
C39	<p>Within 2 months of the date of this consent, the Applicant shall provide detailed site data, to the satisfaction of Council, to update the Duck River and Duck Creek Flood Study Review, 2013. The Applicant shall:</p> <ul style="list-style-type: none"> (a) provide details of all floodplain obstructions on the site, including bund locations and heights; (b) fund the work required to update Council’s flood model with the site specific data; and (c) provide details of all construction and demolition works that would be carried out within areas defined as ‘high hydraulic hazard’. 	<p>The final Flood Assessment Report prepared by WMA Water (Copy provided, dated 2-Feb-16) was approved by Parramatta City Council (Email dated 18 May 2016, copy provided).</p> <p>Items (a) to (c) are specifically addressed in Section 2.3 of the final Flood Assessment Report.</p> <p>It was not possible to verify that the data was provided within 2 months of the consent; however, the final Flood Assessment Report includes details of correspondence with Parramatta City Council dating back to March 2015. As the final report has been approved, this consent condition has been categorised as ‘compliant’.</p>	Compliant	
C40	<p>Within 1 month of completing the updates to the flood study, the Applicant shall review the outcomes of the updated study and detail any additional flood management measures to be implemented during construction, demolition and operation. The outcomes of the study shall also inform any revisions to the Flood Emergency Response Plan as required by Condition C42.</p>	<p>It is reported in Section 2.4 of the Final Flood Assessment Report (Copy provided, dated 2-Feb-16) that “As a result of the very small change in flood levels or hazard no additional flood management measures are required during construction, demolition or operation”.</p> <p>This has been categorised as ‘compliant’ since the Final Flood Assessment Report did also provide advice on the required floor levels for the substations (Refer to CC # C27 and C38).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
FLOODING – Flood Warning Signs				
C41	<p>The Applicant shall ensure that flood warning signs are maintained throughout the site, during construction, demolition and operation. The flood warning signs shall indicate the site is prone to flooding and shall show the location of assembly and evacuation points, which are above the 1% AEP.</p>	<p>Viva Energy advised that assembly and evacuation signs are not provided as this information is included in the Flood Emergency Response Plan (Copy provided, dated 5-Sep-14) and communicated during the site induction. Personnel evacuation routes are shown on flood map diagrams in the Flood Emergency Response Plan (Copy provided) and it was verified during the site inspection that a copy of this plan is held at the main control room. Whilst the intent of this CC appears to be met (i.e. that personnel know where it is safe to assemble and evacuate in a flood), it has been categorised as ‘non-compliant’ since signage has not been provided and the flood maps in the Flood Emergency Response Plan require updating (Refer to CC # C42). Viva Energy should consult with DP&E to determine if this consent condition can be removed, particularly as safe assembly and evacuation is also addressed in CC # C42(e).</p>	<p>Non-Compliant</p>	<p>2018/03 - Viva should consult with the DP&E to determine if consent condition C41 can be removed, particularly as safe assembly and evacuation is also addressed in CC # C42(e). If not removed, then the flood warning signs should be installed. (Refer to Section 5.1 - Table 7, CC # C41)</p>

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
FLOODING – Flood Emergency Response Plan				
C42	<p>The Applicant shall update and implement the Emergency Response Plan for the site to include procedures for flood emergency response during construction, demolition and operation. The Plan must:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced expert; (b) be prepared in consultation with Council; (c) be submitted to the Secretary for approval at least 1 month prior to the commencement of construction or demolition, or as otherwise agreed with the Secretary; (d) detail the procedures for managing flood risks during construction, demolition and operation, including flood recovery measures, sufficient warning time for flash flooding and procedures for ensuring the protection of infrastructure and human safety; and (e) identify assembly points, emergency evacuation routes, flood warning alarms and evacuation procedures. 	<p>The Flood Emergency Action Card was sighted (Copy provided). The pre-demolition management plans, which included the Flood Emergency Action Card, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>The Flood Emergency Action Card approved by the DP&E is dated 5-Sep-14. The flood maps showing assembly points and evacuation routes require updating (the trigger levels, assembly points and evacuation routes are the same, only the maps need to be updated).</p>	Administrative Non-Compliance	<p>2018/04 – The flood maps showing assembly points and evacuation routes should be updated in the Flood Action Card of the Emergency Response Plan.</p> <p><i>(Refer to Section 5.1 - Table 7, CC # C42)</i></p>

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
SOIL & WATER – Imported Soil				
C43	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) ensure that only VENM or ENM or other material approved in writing by the EPA is used as fill on the Site; (b) keep accurate records of the volume and type of fill to be used; and (c) make these records available to the Department upon request. 	<p>Viva Energy advised that fill has only needed to be imported to the site on two occasions: (i) to fill in the former ‘Mobil’ tank farm area; and, (ii) for refurbishment of Tank Farm B2 (Diesel).</p> <p>Although not verifiable, this does appear reasonable since these two identified occasions have involved relatively large quantities of fill (see below) and other soil on-site has been identified for potential re-use on site (Refer to CC # C17).</p> <p>A Virgin Excavated Natural Material (VENM) assessment was sighted (Dated 14-Apr-16, copy provided) for the fill (c. 1,480 tonnes) used at the former ‘Mobil’ tank farm area. Note: This was filled in prior to the previous IEA.</p> <p>Approximately 2,000 tonnes of sandstone has been imported for Tank Farm B2 (Diesel). The VENM certificate for this material, which was sourced from a site at Macquarie Park, was sighted (Dated 21-Mar-18, copy provided).</p>	Compliant	
SOIL & WATER – Erosion and Sediment Control Plan				
C44	<p>The Applicant shall prepare and implement an Erosion and Sediment Control Plan for construction and demolition to the satisfaction of the Secretary and in accordance with <i>Managing Urban Stormwater: Soils and Construction, 2004</i>, or its latest version.</p>	<p>The pre-demolition management plans, which included the Erosion and Sediment Control Plan (Note: Combined with Soil and Water Management Plan), were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>The Soil and Water Management Plan is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
C45	Prior to the commencement of construction or demolition, the Applicant shall implement suitable erosion and sediment control measures on-site, in accordance with the Erosion and Sediment Control Plan.	<p>A dust and erosion control coating (Product Name: Total Ground Control Plus, copy of SDS provided), was applied in November 2016 to the former refinery processing areas. Some of this green coloured material was sighted during the site inspection.</p> <p>Grass has been grown on the former Mobil tank farm site to minimise run-off of suspended solids (Refer to Section 5.3, Table 9, ID # 1). Hay bales and sediment barriers have also been provided – Viva Energy advised that these were installed after the TSS exceedances reported in Section 3.3; therefore, this CC has been categorised as ‘non-compliant’.</p> <p>Sand bags are provided along some surface drains (Refer to Section 5.3, Table 9, ID # 6).</p>	Non-Compliant	
SOIL & WATER – Discharge Limits				
C46	The Development shall comply with section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters, except as expressly provided in an EPL.	<p>Section 120 of the POEO Act relates to the prohibition of the pollution of waters and a person who pollutes any waters is guilty of an offence.</p> <p>This condition has been assessed as ‘non-compliant’ due to the occurrence of an incident since the previous IEA, which resulted in Viva Energy receiving a Penalty Notice from the EPA (Refer to Section 3).</p>	Non-Compliant	
C47	The Applicant shall ensure that signs are displayed and maintained adjacent to all stormwater drains on the site clearly indicating ‘Stormwater Only’.	<p>Viva Energy advised that the drains sighted within the terminal site drain to the main interceptors and are not therefore for ‘stormwater only’. This would appear to be consistent with the site drainage drawing (‘Clyde Refinery Drainage Layout’, copy provided).</p> <p>Drains for ‘stormwater only’ are located in the car parking areas at the main office building. This area is within the boundary of the area covered by the SDD consent and the</p>	Non-Compliant	<p>2018/05 – ‘Stormwater Only’ signs should be provided on all of the relevant drains located in the car parking areas at the main office building.</p> <p>(Refer to Section 5.1 - Table 7, CC # C47)</p>

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		<p>drains were observed to not have signs. This is not in an operational area of the site; however, signs should be provided to comply with CC # C47.</p> <p>Viva Energy advised that there are drains for 'stormwater only' at the western end of site, which is part of a leased area outside the area covered by the SDD consent. This was not verified, but these drains appear to have been sighted during the previous IEA and were noted to have 'stormwater only' labels.</p>		
SOIL & WATER – Foreshore Management				
C48	<p>The Applicant shall ensure the foreshore and inter-tidal areas on the site are fully protected. This includes preventing the storage of any machinery, materials, equipment, supplies, or waste receptacles within or adjacent to the inter-tidal area.</p>	<p>The intertidal areas are fenced off; therefore, it was not possible to access these areas. However, no evidence was sighted during the site inspection to indicate non-compliance with this condition.</p>	Not Verified	
SOIL & WATER – Bunding				
C49	<p>The Applicant shall store all chemicals, fuels and oils used on-site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or the EPA's <i>Storing and Handling of Liquids: Environmental Protection – Participants Handbook</i>.</p>	<p>All tanks containing hydrocarbons or water treatment chemicals that were sighted during the site inspection were observed to be bunded (Refer to Section 2.4.4, Table 9, ID # 10).</p> <p>Note: The EPA's <i>Storing and Handling of Liquids: Environmental Protection – Participants Handbook</i> is no longer available.</p> <p>The integrity of the bund walls has also been improved since the previous IEA by application of shot-creting (Refer to Section 5.3, Table 9, ID # 4). Example Design Change Proposal (DCP) documentation was also sighted for these modifications, which were undertaken to comply with AS1940: Tank Farms E1-E2 (DCP-65, copy provided) and Tank Farms B/B1 (DCP-86, copy provided).</p>	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
		<p>It was not possible to verify that all materials are stored in accordance with all relevant Australian Standards; therefore, this was categorised as 'not verified'. However, no specific areas of concern were identified.</p>		
SOIL & WATER – Water Management Plan				
C50	<p>The Applicant shall update and implement the Water Management Plan for the site for construction, demolition and operation, to the satisfaction of the Secretary. The plan must:</p> <ul style="list-style-type: none"> (a) be approved by the Secretary prior to the commencement of construction or demolition and be provided to the EPA and NOW; (b) include mitigation measures for managing surface water and industrial water including, but not limited to the Management and Mitigation Measures in Appendix C; (c) include a Surface Water Management Plan, that: <ul style="list-style-type: none"> • describes the water management system on site, including plans of the stormwater system and oily water/wastewater system; • demonstrates compliance with any requirements of the EPL and/or Council with respect to stormwater and wastewater management; (d) include a Groundwater Management Plan, that: <ul style="list-style-type: none"> • details the procedures for testing, dewatering, storage, movement and treatment of any groundwater; and (e) include a Leachate Management Plan describing procedures for preventing the generation of leachate from waste stockpiles. 	<p>The pre-demolition management plans, which included the Water Management Plan (Note: Combined with Soil Management Plan), were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <ul style="list-style-type: none"> (d) Groundwater monitoring has continued throughout the demolitions and construction activities (Refer to CC # C17 and EPL # U1.1). An example monitoring report for Quarter 4 (2016) was sighted (Copy provided). It is concluded in this report that groundwater conditions beneath the site have not changed significantly. (e) The only identified leachate is from the: (i) sludge dewatering facility (Refer to EPL # O5.4), which is collected and directed to the biotreater; and, (ii) biotreater filter cake drying area, which is not currently in use (Refer to EPL # O4.3). 	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
WASTE MANAGEMENT				
C51	The Applicant shall assess, classify and manage all liquid and non-liquid wastes generated at the site during construction, demolition and operation in accordance with the EPA's <i>Waste Classification Guidelines Part 1: Classifying Waste, December 2009</i> , or its latest version and dispose of all wastes to a facility that may lawfully accept the waste.	Waste classifications are included on the Viva Waste Summary spreadsheet (Copy provided for 2016). Records for some example waste streams (e.g. associated with overhauling of the storage tanks) were sampled during the audit and included the waste classification. For example: N120 – Soils contaminated with a contaminated waste (Transport Certificate No. 2T00756280, dated 9-Nov-16, copy provided). This is for garnet used during tank cleaning (The garnet may be contaminated by lead from lead paint, which has been verified by testing – sighted Analytical Report for testing of paint on T37, copy provided).	Compliant	
C52	Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the POEO Act, if such a licence is required in relation to that waste.	Refer to EPL # L5.4 to L5.5 and 5.8 to 5.9.	Note	
C53	The Applicant shall manage the chemical fixation and treatment of organic solvents, contaminated blue metals and empty drums or macro-encapsulation of waste in accordance with the EPA <i>Specific Immobilisation Approval and the EPA Waste Classification Guidelines Part 2: Immobilisation of Waste, April 2008</i> , or its latest version.	Viva Energy advised that chemical fixation / macro-encapsulation has not been undertaken. It was not possible to verify that this CC has not been triggered since the previous IEA; therefore, it was categorised as 'not verified'.	Not Verified	
C54	The Applicant shall manage all materials and waste containing Scheduled Chemical Waste and polychlorinated biphenyls in accordance with the applicable Chemical Control Order or in accordance with a licence under the <i>Environmentally Hazardous Chemicals Act, 1985</i> .	Viva Energy advised that this has not been triggered since previous IEA (PCBs were previously disposed off-site prior to electrical works as noted in previous IEA). It was not possible to verify that this CC has not been triggered since the previous IEA; therefore, it was categorised as 'not verified'.	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
C55	The Applicant shall manage all materials and waste containing radioactive substances in accordance with the <i>Radiation Control Act, 1990, Radiation Control Regulation, 2013</i> and the requirements of the EPA.	Evidence was sighted of Viva Energy sending an application (Dated 31-Mar-16, copy provided) to the NSW EPA Radiation Licensing division to obtain permission to send a radioactive source (Niton XL3t-800 XRF) from the Clyde Terminal to the Geelong Refinery.	Compliant	
C56	The Applicant shall retain all sampling and waste classification data for the life of the Development in accordance with the requirements of the EPA.	Refer to CC # C51.	Compliant	
WASTE MANAGEMENT – Waste Management Plan				
C57	<p>The Applicant shall update and implement the Waste Management Plan for the site for construction, demolition and operation to the satisfaction of the Secretary. This Plan shall:</p> <ul style="list-style-type: none"> (a) be approved by the Secretary prior to the commencement of construction or demolition and be provided to the EPA; (b) detail the type and quantity of waste to be generated during construction, demolition and operation; (c) detail the materials to be reused or recycled, either on or off site; (d) detail the procedures for handling, storage, collection of recycling and disposal of waste; (e) include measures to manage stockpiles, including ensuring stockpiles are covered or stored undercover on sealed and bunded areas, are no higher than 5 metres and have height markers installed; and (f) include the Management and Mitigation Measures included in Appendix C. 	<p>The pre-demolition management plans, which included the Waste Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided). This covered the construction and demolition phases.</p> <p>The Environmental Management Manual (EMM) includes a cross-reference to this consent condition for the operations phase. The EMM was approved by the DP&E on 17-Sep-15 (DP&E approval letter, dated 17-Sep-15, copy provided).</p> <p>The Waste (and Resource Recovery) Management Plan and EMM are available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>It was not possible to verify that all waste materials have been managed in accordance with the Waste Management Plan and EMM (particularly for early phases); therefore, this was categorised as 'not verified' (Also refer to EPL # L5). However, no specific areas of concern were identified.</p>	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
BIODIVERSITY – Biodiversity Management Plan				
C58	<p>The Applicant shall prepare and implement a Biodiversity Management Plan for the Development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with Council and OEH; (b) be approved by the Secretary prior to the commencement of construction or demolition; (c) include measures to be taken to minimise impacts on flora and fauna, including inspection of exterior casings and insulations on stacks and buildings to be demolished for the presence of Grey-headed Flying-foxes and microbats and procedures for their safe relocation; (d) include an updated <i>Plan of Management: Restoration of Green and Golden Bell Frog Habitat, Clyde, October 2013</i> for the construction, demolition and operation, incorporating: <ul style="list-style-type: none"> • specific measures to be implemented such as frog-proof fences to exclude Green and Golden Bell Frogs from construction and demolition areas; • plans for the implementation and ongoing management of artificial breeding habitats; • monitoring protocols including long-term low frequency frog monitoring and a Gambusia monitoring program of the ponds and artificial breeding habitats; • active management procedures for ensuring ponds remain free of Gambusia including manually drying out small and intermediate ponds on an annual basis; 	<p>The pre-demolition management plans, which included the Biodiversity Management Plan, were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided).</p> <p>The Biodiversity Management Plan is available on the CTCF website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project.</p> <p>An alternate concept design and revised plan of management for the Green and Golden Bell Frog (GGBF) habitat is being evaluated by the University of NSW (UNSW's proposal was sighted for this evaluation – dated 1 Feb-18), which could potentially locate the breeding ponds adjacent to the wetland area; therefore, it was not possible to fully verify implementation at the time of the audit.</p>	Not Verified	<p>2018/06 – The alternate concept design and revised plan of management for the Green and Golden Bell Frog (GGBF) habitat should be finalised submitted to the DoE for approval.</p> <p>The approved design and revised plan of management should be implemented accordingly.</p> <p>(Refer to Section 5.1 - Table 7, CC # C58)</p>

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	(e) include an updated Wetland Management Plan to include the creation of habitat opportunities for the Green and Golden Bell Frog; and (f) include a pest, vermin and noxious weed management plan.			
HERITAGE MANAGEMENT – Archival Record				
C59	The Applicant shall commission an archival photographic and documentary recording of the existing fabric and operation of the Clyde Refinery. The archival recording must: <ul style="list-style-type: none"> (a) be prepared by an appropriately qualified heritage expert, in accordance with the <i>Heritage Council Guidelines on Photographic Recording of Heritage Items Using Film or Digital Capture 2006</i>; (b) ensure the photographic recording is undertaken prior to demolition works taking place; (c) be submitted to the Heritage Council of NSW, the Council Library and the NSW State Library one month prior to the completion of demolition of the key refinery processing units; (d) include the recording of oral histories from past and present staff regarding the operations of the Clyde Refinery; (e) ensure the documentary recording contains a detailed timeline of representative pieces of equipment and tankfarms, together with copies of plans and schematics; (f) include a photographic archival recording of the former Clyde Refinery infrastructure. These may be staged to capture those elements being deconstructed 	It is reported in the previous IEA report that the auditors viewed the archival photographic and documentary recording. This was not sighted during the current IEA. An email from Viva Energy to the DP&E was sighted (Dated 18-Dec-15, copy provided), in which it is reported that confirmation of the delivery of the archival photographic record, archival equipment record and the oral history was attached from: <ul style="list-style-type: none"> 1) NSW State Library 2) NSW Heritage Council 3) Parramatta Heritage The attachments were not sighted; however, the DP&E has acknowledged receipt of this information to satisfy Condition C59 (Email from DP&E, dated 3-Feb-16, copy provided).	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>prior to demolition works and the broader context of the equipment should be captured prior to its removal; and</p> <p>(g) include a photographic archival recording of the stacks.</p>			
HERITAGE MANAGEMENT – Heritage Management Plan				
C60	<p>The Applicant shall prepare and implement a Heritage Management Plan for the on-going management of heritage items on the site. The plan shall:</p> <p>(a) be prepared by an appropriately qualified heritage expert in consultation with Council;</p> <p>(b) be submitted to the Secretary for approval no later than 3 months from the date of this consent;</p> <p>(c) include an Archaeological Research Design and Methodology to manage subsurface impacts (if they occur), to the area of archaeological potential identified around the Bitumen Gantry through the removal of foundations or other invasive works;</p> <p>(d) include details for the relocation of the memorial to John Simpson Fell, Horace Liddon Spencer and Albert Edward Ward to a publicly accessible area, to be agreed in consultation with Council; and</p> <p>(e) include measures for the management of archaeological potential at the historical residential area along Devon Street and the second bitumen gantry.</p>	<p>An Historical Archaeological Assessment (HAA) was undertaken (Dated May-15, copy provided). It is concluded in the HAA that there are no archaeological resources on the site with research potential. This was acknowledged by the DP&E following their review of the HAA (Letter dated 8-Jul-15, copy provided) and the DP&E agreed that the Archaeological Research Design and Methodology required in C60(c) was not required.</p> <p>(d) The memorial stone has been relocated to outside the facility (nearer to gate 2). This was sighted during the site visit.</p> <p>It is reported in the letter from the DP&E that “Viva has adequately satisfied all requirements of condition C60” (Letter dated 8-Jul-15, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
HERITAGE MANAGEMENT – Unexpected Finds Protocol				
C61	If any archaeological relics are uncovered during the course of the work, then all works shall cease immediately in that area and the OEH Heritage Branch contacted. Depending on the possible significance of the relics, an archaeological assessment and an excavation permit under the NSW Heritage Act 1977 may be required before further works can continue in that area.	Viva Energy advised that this has not been triggered. Although not verifiable, this would appear to be consistent with the HAA (Refer to CC # C6).	Not Verified	
C62	If Aboriginal objects are uncovered during work, excavation or disturbance of the area, work must stop immediately. The Regional Operations Group of the OEH is to be contacted. Aboriginal archaeological excavation must be co-ordinated with any proposed investigation of non-indigenous material.	Viva Energy advised that this has not been triggered. Although not verifiable, this would appear to be consistent with the HAA (Refer to CC # C6).	Not Verified	
LIGHTING & SIGNAGE – Lighting				
C63	The Applicant shall ensure that the lighting associated with the Development: (a) complies with the latest version of <i>AS 4282(INT) – Control of Obtrusive Effects of Outdoor Lighting</i> ; and (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Example lighting was observed during the site inspection and did not appear to be obtrusive. No complaints have been recorded relating to lighting since the previous IEA (Refer to Section 3).	Compliant	
LIGHTING & SIGNAGE – Signage				
C64	The Applicant shall not install any advertising signs on site without the written consent of the Secretary.	Viva Energy advised that new advertising signs had not been installed. This could not be verified; however, no advertising signs were observed during the site visit that appeared to be new.	Not Verified	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
SCHEDULE D ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING				
ENVIRONMENTAL MANAGEMENT – Environmental Management Strategy				
D1	<p>The Applicant shall prepare and implement an Environmental Management Strategy for the Development to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> (a) be submitted to the Secretary for approval within 3 months of the date of this consent; (b) provide the strategic framework for environmental management of the Development; (c) identify the statutory approvals that apply to the Development; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Development; (e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the construction, demolition and operation and environmental performance of the Development; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the development; • respond to any non-compliance; • respond to emergencies; and 	<p>The Environmental Management Strategy (EMS) is available on the CTCP website (https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project).</p> <p>The current version of the EMS (Rev.3) is dated 10-May-18 and includes the items listed in (b) to (f). Note: The management plans (item f) are listed in Appendix D of the EMS document; however, these are made available on the website as separate documents.</p> <p>The process for management of complaints is included in Section 3.3 of the EMS.</p> <p>The first version (v.0, dated April 2015) was accepted by the DP&E (Letter from DP&E dated 16-Jun-15, copy provided). It is noted in this letter that “the EMS is a working document and may be updated following an annual review, audit or incident. Such updates do not require subsequent approvals by the Department.”</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	(f) include: <ul style="list-style-type: none"> • copies of any strategies, plans and programs approved under the conditions of this consent; and • a clear plan depicting all the monitoring required to be carried out under the conditions of this consent. 			

ENVIRONMENTAL MANAGEMENT – Management Plan Requirements

D2	<p>The Applicant shall ensure that the Management Plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Development or any management measures; <p>(c) a description of the measures that will be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the Development; and 	<p>The pre-demolition management plans were approved by the DP&E on 5-Mar-15 (DP&E approval letter, dated 5-Mar-15, copy provided). This included the:</p> <ul style="list-style-type: none"> • Dilapidation Report (Refer to CC # B12). • Construction / Demolition Safety Study (Refer to CC # C14). • Contamination Management Plan (Refer to CC # C17) and Water Management Plan (Refer to CC # C50). • Noise Management Plan (Refer to CC # C25). • Air Quality Management Plan (Refer to CC # C31). • Traffic Management Plan (Refer to CC # C36). • Flood Emergency Response Plan (Refer to CC # C42). • Waste Management Plan (Refer to CC # C57). • Biodiversity Management Plan (Refer to CC # C58). <p>Some of the requirements (e.g. protocol for incidents and complaints) are also included in the EMS (Refer to CC # D1).</p>	Compliant	
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CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> • effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the Development over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan. <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>			

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
ENVIRONMENTAL MANAGEMENT – Revision of Strategies, Plans & Programs				
D3	<p>Within 3 months of the submission of:</p> <ul style="list-style-type: none"> (a) an annual review under Condition D4 of this schedule; (b) an incident report under Condition D5 and D6 of this schedule; (c) an audit report under Condition D7 of this schedule; and (d) any modifications to this consent, <p>the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</i></p>	<p>Strategies, plans, and programs required under this consent have been progressively updated. For example:</p> <ul style="list-style-type: none"> • The EMS (Copy provided) on the CTCP website has been updated in December 2015, December 2016 and May 2018. • The current version of the Biodiversity Management Plan on the CTCP website is Rev. 4, dated 30-Nov-16 (Copy provided). • The current version of the Soil and Water Management Plan on the CTCP website is Rev. 5, dated 3-May-18 (Copy provided). • The current version of the Construction and Demolition Air Quality Management Plan on the CTCP website is Rev. 3, dated 30-Nov-16 (Copy provided). <p>These updates do not appear to have been specifically linked to the items listed in (a) to (d); and do not appear to have been submitted to the DPE for approval. However, this CC was categorised as ‘compliant’ based on subsequent advice provided by the DP&E relating to the EMS (Refer to CC # D1) and the minimal expected document changes that would have been required based on the findings of the previous IEA (Refer to Section 6) and the nature of the reported incidents (Refer to Section 3).</p>	Compliant	<p>2018/07 – Information provided during the IEA suggests that the DP&E may have exempted Viva Energy from the requirements of consent condition D3 for the EMS. If this applies for other strategies, plans, etc. then this should be confirmed with the DP&E and consent condition D3 should be revised accordingly.</p> <p><i>(Refer to Section 5.1 - Table 7, CC # D3)</i></p>
REPORTING – Annual Review				
D4	<p>By the end of July each year, or other timing as may be agreed by the Secretary, the Applicant shall review the environmental performance of the Development to the satisfaction of the Secretary. This review must:</p>	<p>The Annual Environmental Performance Review (AEPR) reports for 2015 and 2016 are available on the CTCP website (https://www.vivaenergy.com.au/about-</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p>(a) describe the construction and demolition activities that were carried out in the previous calendar year, and the construction and demolition activities proposed to be carried out in the coming calendar year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the Development over the previous calendar year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EIS; <p>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the Development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the Development.</p>	<p>us/terminals-and-refinery/clyde/conversion-project/conversion-project).</p> <p>The 2016 AEPR includes the items listed in (a) to (f) and was accepted by the DP&E (Letter from DP&E dated 28-Aug-17, copy provided).</p> <p>Note: The 2017 AEPR report is not on website as it is not due for submission to the DP&E until 31 July 2018 (viz. each report is for a calendar year and must be submitted by July of the following year).</p>		
REPORTING – Incident Reporting				
D5	<p>Within 24 hours of the occurrence of an incident that causes (or may cause) harm to the environment, the Applicant shall notify the Secretary and any other relevant agencies of the incident.</p>	<p>The EPA was notified of the incident involving the discharge of diluted dust suppressant and herbicide to Duck Creek (Refer to Section 3.2) (Verified in email from EPA dated 23-Feb-17, copy provided). This email was then forwarded to the DP&E (Email to DP&E dated 23-Feb-17, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
D6	Within 7 days of the detection of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident.	The EPA was notified of the incident involving the discharge of diluted dust suppressant and herbicide to Duck Creek (Refer to Section 3.2) (Verified in email from EPA dated 23-Feb-17, copy provided). This email was then forwarded to the DP&E (Email to DP&E dated 23-Feb-17, copy provided) and the report required under this condition was provided to the EPA and DP&E by email 2-Mar-17 (Copy provided).	Compliant	
INDEPENDENT ENVIRONMENTAL AUDIT				
D7	<p>Within a year of the date of this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Development. This audit must:</p> <ul style="list-style-type: none"> (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; (b) include consultation with the relevant agencies; (c) assess the environmental performance of the Development and whether it is complying with the relevant requirements in this consent and any relevant EPL (including any assessment, plan or program required under these approvals); (d) review the adequacy of any approved strategy, plan or program required under these approvals; and (e) recommend measures or actions to improve the environmental performance of the Development, and/or any assessment, plan or program required under these approvals. 	<p>The Development Consent for the Clyde Terminal Conversion project (DA No. SSD 5147) is dated 14 January 2015.</p> <p>The previous IEA was undertaken on 10-24 May 2016 and the report is dated 15 July 2016 (Copy provided).</p> <p>It is reported in the previous IEA report that “The Auditors sighted a letter from the DPE dated 27 October 2015 granting an extension until June 2016 to conduct the audit.”</p> <p>The previous IEA appears to have addressed the requirements of this consent condition. Receipt of the previous IEA report was acknowledged by the DP&E (Letter from DP&E dated 24-Apr-17, copy provided) and was noted to “generally satisfy the requirement of condition D7”.</p> <p>Adoption and implementation of the action plan was also supported by the DP&E (Letter from DP&E dated 26-Apr-17, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
	<p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i></p>			
D8	<p>Within 3 months of commissioning this audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report and a program for implementation.</p>	<p>The previous IEA was undertaken on 10-24 May 2016 and the report is dated 15 July 2016 (Copy provided). The previous IEA report includes Viva Energy's response to the recommendations and a program for implementation. Receipt of the previous IEA report was acknowledged by the DP&E (Letter from DP&E dated 24-Apr-17, copy provided). Adoption and implementation of the action plan was also supported by the DP&E (Letter from DP&E dated 26-Apr-17, copy provided).</p>	Compliant	

CC #	Condition of Development Consent	Finding/s	Compliance Assessment	Corrective Action/s
ACCESS TO INFORMATION				
D9	<p>The Applicant shall, to the satisfaction of the Secretary:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • the EIS; • current statutory approvals for the Development; • approved strategies, plans or programs; • a summary of the monitoring results of the Development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; • a complaints register, updated on a quarterly basis; • copies of any annual reviews (over the last 5 years); • any independent environmental audit, and the Applicant’s response to the recommendations in any audit; and • any other matter required by the Secretary; and <p>(b) keep this information up-to-date.</p> <p><i>Note: This requirement does not require any confidential information to be made available to the public.</i></p>	<p>All of the listed documents are available on the Viva Energy website (https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project and https://www.vivaenergy.com.au/about-us/environment-and-sustainability) and the sampled documents appeared to be up-to-date (Also refer to CC # D4).</p> <p>The previous IEA includes Viva Energy’s response to the recommendations.</p> <p>It was not possible to verify that the complaints register has been updated quarterly; however, this does not appear to be critical given the low number of recorded complaints (Refer to Section 3).</p>	Compliant	

5.2 Conditions from Environment Protection Licence

Relevant conditions from the EPL are included in this Section.

Table 8 Audit Findings (Conditions from EPL)

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s									
1 Administrative Conditions													
A1 What the licence authorises and regulates													
A1.1	<p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1" data-bbox="224 906 862 1184"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Waste processing (non-thermal treatment)</td> <td>Non-thermal treatment of hazardous and other waste</td> <td>Any annual processing capacity</td> </tr> <tr> <td>Chemical storage</td> <td>Petroleum products storage</td> <td>> 100000 kL storage capacity</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Waste processing (non-thermal treatment)	Non-thermal treatment of hazardous and other waste	Any annual processing capacity	Chemical storage	Petroleum products storage	> 100000 kL storage capacity	<p>Activities observed during the site inspection appeared to comply with the listed scheduled activities.</p> <p>Note: This condition does not include a scale limit for these scheduled activities.</p>	Compliant	
Scheduled Activity	Fee Based Activity	Scale											
Waste processing (non-thermal treatment)	Non-thermal treatment of hazardous and other waste	Any annual processing capacity											
Chemical storage	Petroleum products storage	> 100000 kL storage capacity											

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
A2 Premises or plant to which this licence applies				
A2.1	The licence applies to the following premises: <hr/> Premises Details <hr/> CLYDE TERMINAL <hr/> DURHAM STREET <hr/> CAMELLIA <hr/> NSW 2142 <hr/> PART LOT 2 DP 224288, PART LOT 1 DP 383675, PART LOT 101 DP809340, PART LOT 100 DP 1168951 <hr/>		Note	
A2.2	In relation to condition A2.1 the premise is defined on the drawing labelled "Clyde Terminal E.P.L. No. 570 Licenced Discharge Points" drawing No. CLR_0126667_0004 Rev. G, 01/02/2016	This drawing is available on the Viva Energy website: https://www.vivaenergy.com.au/about-us/environment-and-sustainability .	Note	2018/08 – The drawing referred to in EPL # A2.2 should be updated to show the location of the diesel tanks in Tank Farm B2. (Refer to Section 5.2 - Table 8, EPL # A2.2)
A3 Other activities				
A3.1	This licence applies to all other activities carried on at the premises, including: <hr/> Ancillary Activity <hr/> Electricity Generating Works <hr/>	A small power generation plant (steam turbine and alternator) was previously on-site for the refinery operations. This is no longer applicable for the EST operation.	Note	2018/09 – EPL # A3.1 is no longer applicable and should be removed from the EPL. (Refer to Section 5.2 - Table 8, EPL # A3.1)

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
A4 Information supplied to the EPA				
A4.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <ul style="list-style-type: none"> a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence. 	<p>Based on the information on the EPA website, EPL No. 570 has been in place since at least 2002 and there have been 37 licence variations since 2002. Therefore, it was not possible to verify that works and activities are being carried out in accordance with the proposal contained in the licence application.</p>	Not Verified	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
2 Discharges to Air and Water and Applications to Land				
P1 Location of monitoring/discharge points and areas				
P1.1	<p>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</p> <p style="text-align: center;"><i>REFER TO EPL FOR TABLE</i></p>	<p>There are 11 Licensed Discharge Points (LDPs) listed on the EPL. These are numbered: 1, 2, 4, 23, 24, 25, 26, 27, 28, 29 and 30.</p> <p>LDP 1 = Biotreater effluent discharge LDP 2 = Main interceptor pump out LDP 4 = B2 system pump out LDPs 23, 24, 25 and 27 = Flexible discharge points LDP 26 = B2 system monitoring point LDPs 28 and 29 = Overflows from ex-LBA Interceptors LDP 30 = Outlet serving ex-LBA interceptor</p> <p>Based on discussions with Viva Energy personnel, it would appear that the purpose and current status of LDP 23 is unclear (i.e. it is present but does not appear to be used).</p>	Note	<p>2018/10 – The purpose and current status of LDP 23 should be determined. If this LDP is not required, then review with EPA to determine if it can be removed from the EPL.</p> <p style="color: red;">(Refer to Section 5.2 - Table 8, EPL # P1.1)</p>
3 Limit Conditions				
L1 Pollution of waters				
L1.1	<p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.</p>	<p>Section 120 of the POEO Act relates to the prohibition of the pollution of waters and a person who pollutes any waters is guilty of an offence.</p> <p>This condition has been assessed as ‘non-compliant’ due to the occurrence of an incident since the previous IEA, which resulted in Viva Energy receiving a Penalty Notice from the EPA (Refer to Section 3).</p>	Non-Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s								
L2 Load limits												
L2.1	The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.	<p>The following Load Based Licence (LBL) data is provided on the EPA website for 2017 (EPL No. 570):</p> <table border="0" data-bbox="929 491 1541 606"> <tr> <td>Benzene</td> <td>437.000 kg</td> </tr> <tr> <td>Volatile organic compounds - Summer</td> <td>30,745.000 kg</td> </tr> <tr> <td>Volatile organic compounds</td> <td>97,767.000 kg</td> </tr> </table> <p>These comply with the limits specified in EPL # L2.2 below.</p>	Benzene	437.000 kg	Volatile organic compounds - Summer	30,745.000 kg	Volatile organic compounds	97,767.000 kg	Compliant			
Benzene	437.000 kg											
Volatile organic compounds - Summer	30,745.000 kg											
Volatile organic compounds	97,767.000 kg											
L2.2	<p>The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.</p> <table border="1" data-bbox="226 767 817 978"> <thead> <tr> <th>Assessable Pollutant</th> <th>Load limit (kg)</th> </tr> </thead> <tbody> <tr> <td>Benzene (Air)</td> <td>26000.00</td> </tr> <tr> <td>Volatile organic compounds – Summer (Air)</td> <td></td> </tr> <tr> <td>Volatile organic compounds (Air)</td> <td>1250000.00</td> </tr> </tbody> </table> <p>Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.</p>	Assessable Pollutant	Load limit (kg)	Benzene (Air)	26000.00	Volatile organic compounds – Summer (Air)		Volatile organic compounds (Air)	1250000.00	Refer to EPL # L2.1.	Compliant	
Assessable Pollutant	Load limit (kg)											
Benzene (Air)	26000.00											
Volatile organic compounds – Summer (Air)												
Volatile organic compounds (Air)	1250000.00											
L3 Concentration limits												
L3.1	For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	Refer to EPL # L3.4.	Note									
L3.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	Refer to EPL # L3.4.	Note									

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
L3.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.	<p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability) (Note: Results are grouped for LDPs 23, 24, 25 and 27).</p> <p>Only the listed pollutants have been identified in the monitoring results as having been discharged via an LDP. Whilst it was not possible to verify that other pollutants have not been discharged, the nature of the facilities and operations would suggest that this is unlikely.</p>	Not Verified	
L3.4	<p>Water and/or Land Concentration Limits</p> <p><i>REFER TO EPL FOR TABLE</i></p>	<p>Note: The sampling method, units of measure, and frequency of monitoring is specified at EPL # M2.4 (e.g. daily during any discharge for pH at LDP 2) and the required concentration limit/s are specified at EPL # L3.4 (e.g. pH 6.0—9.0 at LDP 2).</p> <p>Discharge normally occurs from LDP 1 (Biotreater effluent discharge), which requires daily or monthly monitoring.</p> <p>Monitoring for some of the LDPs is only required when there is a discharge (e.g. LDPs 28 and 29, which only require monitoring when there is an overflow event). Consequently, some limits only apply when there is a discharge (Refer to EPL # L3.5).</p> <p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability) (Note: Results are grouped for LDPs 23, 24, 25 and 27).</p> <p>The monitoring records reported on the Viva Energy website for the period since the previous IEA comply with the limits specified at EPL # L3.4.</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
		<p>Note: The TSS exceedences listed in Section 3 relate to EPL # L3.5, which has been categorised as 'non-compliant'. The unintended discharge of the soil binding agent (Refer to Section 3) was not via an LDP (i.e. there is no concentration limit specified for this material).</p>		
L3.5	<p>An exemption exists for Condition L3.1 for concentration limits of Total Suspended Solids (TSS) for Points 2 and 4. Within 48 hours of a rain event, water discharged at Points 2 and 4 must not exceed 80 milligrams per litre (mg/L) of TSS. This exemption also applies to Points 28 & 29.</p>	<p>Monitoring results are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability). This has been categorised as 'non-compliant' since some exceedences of these TSS limits have occurred (Refer to Section 3).</p>	Non-Compliant	
L3.6	<p>The water that is permissible to be discharged from points 1, 2, 4, 23, 24, 25 and 27 must not contain any visible oil or grease.</p>	<p>Operators inspect and record findings if there is an overflow. This is recorded on an 'overflow log' and the records sighted during the audit appeared to be compliant with this condition (Operator overflow log, copy not provided).</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s															
L4 Volume and mass limits																			
L4.1	<p>For each discharge point or utilisation area specified below (by a point number), the volume/mass of:</p> <p>a) liquids discharged to water; or;</p> <p>b) solids or liquids applied to the area;</p> <p>must not exceed the volume/mass limit specified for that discharge point or area.</p> <table border="1" data-bbox="246 646 840 906"> <thead> <tr> <th>Point</th> <th>Unit of Measure</th> <th>Volume/Mass Limit</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>kilolitres per day</td> <td>4000</td> </tr> <tr> <td>2</td> <td>kilolitres per day</td> <td>5000</td> </tr> <tr> <td>4</td> <td>kilolitres per day</td> <td>5000</td> </tr> <tr> <td>30</td> <td>kilolitres per day</td> <td>5000</td> </tr> </tbody> </table>	Point	Unit of Measure	Volume/Mass Limit	1	kilolitres per day	4000	2	kilolitres per day	5000	4	kilolitres per day	5000	30	kilolitres per day	5000	<p>Note: The required volume limits are specified at EPL # L4.1 (e.g. 5,000 kilolitres per day at LDP 2) and the frequency of monitoring is specified at EPL # M7.1 (e.g. daily during any discharge at LDP 2).</p> <p>Discharge normally occurs from LDP 1 (Biotreater effluent discharge), which requires ongoing monitoring with a flow meter and continuous logger (Refer to EPL # M7.1).</p> <p>Data for LDP 1 is collated in a spreadsheet and the data for 2-Jul-16 to 1-Jul-17 was sighted (Copy provided). The average volume (based on measured flow rates when discharging) for this period varies from 371 kl/day to 2,444 kl/day. Viva Energy advised that the maximum recorded flowrate is probably close to the capacity of the pump (Not verified).</p> <p>Viva Energy advised that discharge from 2, 4, 30 does not normally occur (These are to discharge directly from an interceptor or basin, which is not normal operation as this requires circulation of contents and a delay for testing).</p> <p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability). It is noted that there has been no reported discharge from LDP 2, 4 or 30 since the previous IEA, which is consistent with the feedback from the Viva personnel.</p> <p>It was noted that the volume discharged per day is not included in the monitoring results reported on the website.</p>	Compliant	<p>2018/11 – The volume discharged per day at LPDs 1, 2, 4 and 30 should be included with the monitoring results reported on the Viva website.</p> <p>(Refer to Section 5.2 - Table 8, EPL # L4.1)</p>
Point	Unit of Measure	Volume/Mass Limit																	
1	kilolitres per day	4000																	
2	kilolitres per day	5000																	
4	kilolitres per day	5000																	
30	kilolitres per day	5000																	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
L5 Waste				
L5.1	The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.	Refer to EPL # L5.4 to L5.5 and 5.8 to 5.9.	Note	
L5.2	This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence.		Note	
L5.3	<p>Except as provided by any other condition of this licence, only the Hazardous and/or Liquid and/or Restricted Solid waste listed below may be generated and/or stored at the premises.</p> <ul style="list-style-type: none"> a) A100 Waste resulting from surface treatment of metals and plastics; b) B100 Acidic solutions or acids in solid form; c) C100 Basic solutions or bases in solid form; d) D120 Mercury; mercury compounds; e) D140 Chromium compounds (hexavalent and trivalent); f) D210 Nickel compounds; g) D220 Lead; lead compounds; h) D270 Vanadium compounds; i) D330 Inorganic sulfides; j) D360 Phosphorus compounds excluding mineral phosphates; 	<p>Due to the size of the facility, it was not possible to verify that only the listed categories of waste have been generated and/or stored at the premises since the previous IEA. However, it was noted that this list includes wastes that are typical for a terminal operation (e.g. J120, N120 and N205) and the 'Viva Waste Summary' spreadsheet (Copy provided for 2016) only includes materials listed under this condition (i.e. D220, G110, J100, J120, N100, N120 and N205).</p>	Not Verified	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> k) F100 Waste from the production, formulation and use of inks, dyes, pigments, paints, lacquers and varnish; l) G110 Organic solvents excluding halogenated solvents; m) J100 Waste mineral oils unfit for their original intended use; n) J120 Waste oil/water, hydrocarbons/water mixtures or emulsions; o) J160 Waste tarry residues arising from refining, distillation, and any pyrolytic treatment; p) M100 Waste substances and articles containing or contaminated with polychlorinated biphenyls (PCB's), polychlorinated naphthalenes (PCN's), polyterphenyls (PCT's) and/or polybrominated biphenyls (PBB's). q) M150 Phenols, phenol compounds including chlorophenols; r) M250 Surface active agents (surfactants), containing principally organic constituents and which may contain metals and inorganic materials; s) M260 Highly odorous organic chemicals (including mercaptans and acrylates); t) N100 Containers and drums which are contaminated with residues of substances referred to in this list; u) N120 Soils contaminated with a waste; v) N140 Fire debris and fire wash waters; w) N160 Encapsulated, chemically-fixed, solidified or polymerised wastes; x) N190 Filter cake; 			

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
	<ul style="list-style-type: none"> y) N230 Ceramic-based fibres with physicochemical characteristics similar to those of asbestos; z) R100 Clinical and related wastes; aa) T190 (or N205) Residues from industrial waste treatment/disposal operations; bb) Z100 Organic compounds (i.e. aliphatic nitrogen compounds); and cc) Z110 Inorganic compounds 			
L5.4	<p>Except as provided by any other condition of this licence, only the Hazardous and/or Liquid and/or Restricted Solid wastes listed below may be received at the premises from Viva Energy's EPA-licensed premises at Greenwich (Gore Bay Terminal, EPL 661) and Rosehill (Parramatta Terminal, EPL 660) for treatment, processing, reprocessing or disposal at the premises:</p> <ul style="list-style-type: none"> a) J100 Waste mineral oils unfit for their original intended use; b) J120 Waste oil/water, hydrocarbons/water mixtures or emulsions; c) M260 Highly odorous organic chemicals (including mercaptans and acrylates); and d) N120 Soils contaminated with a controlled waste. 	<p>Viva Energy advised that oily water was previously received from Gore Bay (now discontinued) and that this condition was more relevant when operating the refinery (i.e. when transferring crude).</p>	Not Verified	
L5.5	<p>The licensee may receive Hazardous and/or Liquid and/or Restricted Solid waste from Viva Energy's EPA-licensed premises at Greenwich (Gore Bay Terminal, EPL 661) without the need for waste tracking records, however a record of any waste received must be made and retained at the Clyde Terminal.</p>	<p>'Spent' activated carbon (AC) is received from Gore Bay, which is then trucked off-site (Note: This is categorised as Waste Code N205 - Residues from industrial waste treatment/disposal operations).</p> <p>The quantity transported to the Terminal is recorded on the 'Viva Waste Summary' spreadsheet (Copy provided for 2016). A example transport certificate was also sighted (Dated 7-Dec-17, copy provided).</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
L5.6	<p>Except as provided by any other condition of this licence, only the Hazardous and/or Liquid and/or Restricted Solid waste listed below may be received via pipeline only from the EPA-licensed premises at Silverwater (Sydney Metropolitan Pipeline, EPL 1969) and Joint User Hydrant Installation (JUHI) for treatment, processing, reprocessing or disposal at the premises without the need for waste tracking.</p> <p>a) J120 Waste oil/water, hydrocarbons/water mixtures or emulsions.</p>	<p>Viva Energy advised that there is no longer a pipeline connecting to Silverwater and the JUHI pipeline only discharges from the terminal (i.e. so would not normally receive waste oil/water). This condition does not appear to have been triggered; however, this could not be verified.</p>	Not Verified	
L5.7	<p>Except as provided by any other condition of this licence, only the Hazardous and/or Liquid and/or Restricted Solid wastes listed below may be treated, processed, reprocessed or disposed of at the premises.</p> <p>a) A100 Waste resulting from the surface treatment of metals and plastics, b) C100 Basic solutions or bases in solid form, c) J120 Waste oil/water, hydrocarbons/water mixtures or emulsions, d) M260 Highly odorous organic chemicals (including mercaptans and acrylates), e) N120 Soils contaminated with a controlled waste, f) N160 Encapsulated, chemically-fixed, solidified or polymerised wastes, and g) T190 Residues from industrial waste treatment / disposal operations.</p>	<p>During the site inspection, the waste materials observed to be treated, processed, reprocessed or disposed of at the premises appeared to comply with the listed materials. For example:</p> <ul style="list-style-type: none"> • Soil contaminated with hydrocarbon fuel. • Waste oil/water. 	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
L5.8	<p>Except as provided by any other condition of this licence, only the Hazardous and/or Liquid and/or Restricted Solid waste listed below may be received from the EPA-licensed premises at Port Kembla (Park Pty Ltd, EPL 654) for treatment or processing at the premises without the need for waste tracking:</p> <p>(a) J120 Waste oil/water, hydrocarbons/water mixtures or emulsions.</p>	<p>Viva Energy advised that this is uncommon (Maybe once in 2014) but has been done since cessation of refining (Not verified).</p>	Not Verified	
L5.9	<p>Except as provided by any other condition of this licence, only the Hazardous and/or Liquid and/or Restricted Solid waste listed below may be received from the Viva Energy refinery at Geelong Victoria (Victorian EPA licence number 46555) for treatment, processing reprocessing or disposal at the premises.</p> <p>a) C100 Basic solutions or bases in solid form.</p>	<p>Caustic may be trucked to the terminal from the refinery at Geelong Victoria. This is used in the biotreater.</p>	Not Verified	
L5.10	<p>After onsite treatment to reduce hydrocarbon contamination of soil or sediment to less than 1% on a weight basis, such treated waste must be disposed of onsite in the area marked "Treated Material Onsite Disposal Site (TPH < 1%)" as shown on drawing number CLR_0126667_0004 Rev G 01/02/2016 titled "Clyde Terminal E.P.L. No. 570 Licenced discharge points"</p>	<p>The "Treated Material Onsite Disposal Site (TPH < 1%)" located near control room and was sighted during the site inspection. There was no evidence of material having been disposed of in other areas; however, this was not verifiable due to the size of the facility.</p>	Not Verified	
L5.11	<p>The licensee must comply with the conditions as specified in this licence or where no specific conditions are outlined in this licence, the licensee must comply with the Protection of the Environment Operations (Waste) Regulation 2014.</p>	<p>Not verified within the scope of the IEA; however, it is noted that this regulation primarily applies to scheduled waste disposal facilities (i.e. EPA-licensed landfills) and scheduled waste facilities that are not scheduled waste disposal facilities (e.g. EPA-licensed waste processing, resource recovery and waste storage facilities).</p>	Not Verified	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
L6 Potentially offensive odour				
L6.1	<p>No condition in this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.</p> <p>Note: Section 129 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.</p>		Note	
L7 Other limit conditions				
L7.1	<p>The licensee may receive less than 100 tonnes per annum of biotreater sludge from another biological wastewater treatment plant in quantities sufficient for re-seeding (inoculating) the biological wastewater treatment plant.</p> <p>Note: For the purposes of this licence, biotreater sludge used for re-seeding (inoculating) the biological wastewater treatment plant is not considered to be a waste.</p>	<p>Viva Energy advised that re-seeding of the biological wastewater treatment plant has not been required since the previous IEA; however, there is no evidence to verify compliance with this condition.</p>	Not Verified	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
4 Operating Conditions				
O1 Activities must be carried out in a competent manner				
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Overall, based on the findings of this audit (including the site inspection), Viva Energy appear to be undertaking the licensed activities in a competent manner. Although some non-compliances were identified, these are considered low risk and therefore, this condition has been categorised as 'compliant'.	Compliant	
O2 Maintenance of plant and equipment				
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Overall, based on the findings of this audit (including the site inspection), Viva Energy appear to be maintaining and operating the equipment in a proper and efficient condition / manner.	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
O3 Dust				
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	<p>A dust and erosion control coating (Product Name: Total Ground Control Plus, copy of SDS provided), was applied in November 2016 to the former refinery processing areas. The supplier advised that the quantity applied (1,000 litres per hectare) would be adequate for up to two years (Email dated 17-Aug-16, copy provided). Some of this green coloured material was sighted during the site inspection.</p> <p>Grass has been grown on the former Mobil tank farm site to minimise dust generation and run-off of suspended solids (Refer to Section 5.3, Table 9, ID # 1).</p> <p>There have been no recorded dust complaints from neighbours.</p> <p>This has been categorised as ‘compliant’ since sufficient evidence was provided to demonstrate that the “intent, and all elements of the requirement of the regulatory approval, have been complied with within the scope of the audit” (i.e. as per the DP&E’s assessment criteria - Refer to Section 2.3). However, some dry areas were sighted during the site inspection (Refer to Section 5.3, Table 9, ID # 5) and it will be important for dust suppression measures to be maintained on an ongoing basis (including potential re-application of the dust and erosion control coating).</p>	Compliant	<p>Refer to 2018/02</p> <p>(Refer to Section 5.1 - Table 7, CC # C28 and Section 5.2 - Table 8, EPL # O3.1)</p>

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
O4 Processes and management				
O4.1	The licensee must ensure that any liquid and/or non-liquid waste at its premise that is generated, stored, processed, reprocessed or disposed, or any combination of those activities, is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.	Waste classifications are included on the 'Viva Waste Summary' spreadsheet (Copy provided for 2016). Records for some example waste streams (e.g. associated with overhauling of the storage tanks) were sampled during the audit and included the waste classification. For example: N120 – Soils contaminated with a contaminated waste (Transport Certificate No. 2T00756280, dated 9-Nov-16, copy provided). This is for garnet used during tank cleaning (The garnet may be contaminated by lead from lead paint, which has been verified by testing – sighted Analytical Report for testing of paint on T37, copy provided).	Compliant	
O4.2	On-site waste management processes must comply with procedures outlined in the figure attached to the letter dated 4 November 2003 prepared by Shell Refining (Australia) Pty Ltd.	Based on discussions with Viva Energy personnel and the date of the letter referred to in this condition, this may be an old redundant condition. This could not be verified, and the status of this condition should be reviewed with the EPA.	Not Verified	2018/12 – The status of EPL # O4.2 should be reviewed with the EPA to determine if it can be removed from the EPL. (Refer to Section 5.2 - Table 8, EPL # O4.2)
O4.3	Biotreater filter cake must be treated in the drying area as defined by the shaded area labelled "Biotreater Sludge Drying Bays" on drawing number CLR_0126667_0004 Rev G titled "Clyde Terminal E.P.L. No. 570 Licenced Discharge Points."	Viva Energy advised that the Biotreater filter cake is currently stored in a bin and disposed off-site (Refer to Section 5.3, Table 9, ID # 7). The "Biotreater Sludge Drying Bays" were sighted during the site inspection and clearly had not been used for some time; therefore, this was categorised as 'not triggered'.	Not Triggered	2018/13 – The status of EPL # O4.3 should be reviewed with the EPA to determine if this condition can be amended to reflect the current process of off-site disposal of the Biotreater filter cake rather than its treatment at the on-site drying area. (Refer to Section 5.2 - Table 8, EPL # O4.3)

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
O4.4	Soil contaminated with hydrocarbons must be treated in the landfarm area as defined by the shaded area labelled "Landfarm" on drawing number CLR_0126667_0004 Rev G titled "Clyde Terminal E.P.L. No. 570 Licenced Discharge Points."	<p>This condition requires that soil contaminated with hydrocarbons "must be treated in the landfarm area". It does not refer to the sludge dewatering facility, which is also marked on the referenced drawing and is also used for soil contaminated with hydrocarbons (such as the soil from the fuel pipeline leak – Refer to Section 2.4.1). Although this condition is potentially ambiguous, it did appear that soil was being treated in the land farm area; therefore, it has been categorised as 'compliant'.</p> <p>The land farm area was sighted during the site inspection (Refer to Section 5.3, Table 9, ID # 8).</p>	Compliant	<p>2018/14 – EPL # O4.4 should be reviewed with the EPA. It should also refer to the use of the sludge dewatering facility for the treatment of soil contaminated with hydrocarbons OR EPL # O5.4 should be amended to indicate that heavily contaminated soil can also be treated at the sludge dewatering facility.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O4.4)</p>
O4.5	Treated soil contaminated with hydrocarbons must be disposed of in the disposal area as defined by the shaded area labelled "Treated Material Onsite Disposal Site (TPH < 1%)" on drawing number CLR_0126667_0004 Rev G titled "Clyde Terminal E.P.L. No. 570 Licenced Discharge Points" or transported offsite to a place that can lawfully accept that class of waste.	Refer to EPL # L5.10	Not Verified	
O5 Waste management				
O5.1	The licensee must ensure that waste identified for recycling is stored separately from other waste.	The central waste transfer station was sighted during the site inspection and appeared to be well organised (Refer to Section 2.4.4, Table 9, ID # 9).	Compliant	
O5.2	All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.	All tanks containing hydrocarbons or water treatment chemicals that were sighted during the site inspection were observed to be bunded (Refer to Section 2.4.4, Table 9, ID # 10).	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
O5.3	<p>The licensee must ensure that suitable measures (e.g. high/low alarms, control valves with interlock control, one way valves) are installed on all tanks, ponds or clarifiers and associated pipes and hoses to prevent the spillage of waste.</p>	<p>Tank gauging systems are provided for the storage tanks.</p> <p>The potential for overflow of the Biotreater, DAF and sand filter was discussed with Viva Energy personnel and only overflow of DAF was identified as a potential event.</p> <p>Overflow of the DAF would require two pumps to fail over a prolonged period and there would be no release to environment as overflowed material would flow back to the interceptors.</p> <p>Due to the size of the facility, it was not possible to verify that measures exist to prevent all spillages from all sources; however, no specific non-compliances were identified.</p>	<p>Not Verified</p>	
O5.4	<p>Dewatered oily sludge must be treated in the sludge dewatering facility and/or landfarm areas as defined by the areas labelled "Sludge Dewatering Facility" and "Landfarm" on drawing number CLR_0126667_0004 Rev G titled "Clyde Terminal E.P.L. No. 570 Licenced Discharge Points" or disposed of offsite to a place that can lawfully accept that class of waste.</p>	<p>Oily sludge may be from on-site drains or residues from the bottom of a tank being overhauled. This area is used to drain liquids (including water and hydrocarbons) from the sludge; therefore, the sludge is not "dewatered" <u>prior</u> to being treated and liquids other than water may be drained from the sludge.</p> <p>Although this condition is potentially ambiguous, it did appear that oily sludge was being treated at the sludge dewatering facility and/or landfarm; therefore, it has been categorised as 'compliant'.</p> <p>The sludge dewatering facility was sighted during the site inspection (Refer to Section 5.3, Table 9, ID # 8). The soil from the fuel pipeline leak (Refer to Section 2.4.1) was in this area.</p>	<p>Compliant</p>	<p>2018/15 – EPL # O5.4 should be reviewed with the EPA to determine if it can be revised to more clearly describe the materials that may be treated at the "sludge dewatering facility" (and whether this is the most appropriate name for this area). If oily sludge can be treated elsewhere (e.g. at the Biotreater) or disposed off-site, then this should also be clarified.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O5.4)</p>

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
O6 Other operating conditions				
O6.1	Discharges to Duck River at Point 23, 24, and 25 must only be a result of dewatering from bunded areas in the tank farm or from water pressure testing of chemical storage tanks within the premises.	<p>Viva Energy advised that these LDPs have only been used when hydrotesting tanks. The water is tested at each location and then discharged to the river via LDP 25. This is evidenced from the monitoring results (up to April 2018) for these LDPs, which are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability), and only show discharges via LDP 25 on 2-Nov-16, 5-Sep-17 and 12-Dec-17 (Note: The reported total organic carbon readings for these discharges are relatively low at 4.6 to 6.8 mg/l and well below the concentration limit of 100 mg/l specified in EPL # L3.4).</p> <p>There are no fixed pumps in the bunds so they are drained as required (prioritise based on need to access). The bunds normally drain to the interceptors, but when dewatering a bund following a hydrotest, the water discharged to the river via LDP 25.</p>	Compliant	
O6.2	<p>Discharges to Duck River at Point 27:</p> <ul style="list-style-type: none"> a) must only be a result of dewatering from bunded areas or from water pressure testing of chemical storage tanks within the western tank farms; and b) The licensee must notify the EPA at least 7 days in advance of any discharge; and c) The licensee must undertake water sampling of the subject chemical storage tank prior to any discharge and provide the laboratory results to the EPA. 	<p>LDP 27 is only referred to as a “Flexible discharge point” in EPL # P1.1 and it is not shown on the on drawing number CLR_0126667_0004 Rev G 01/02/2016 titled “Clyde Terminal E.P.L. No. 570 Licenced discharge points”, which is the reference drawing for the EPL.</p> <p>There are no monitoring results (up to April 2018) for LDP 27 reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability).</p>	Not Verified	<p>2018/16 – EPL # O6.2 should be reviewed with the EPA to determine if this condition can be removed (together with reference to LDP 27 from EPL # P1.1).</p> <p>If LDP 27 cannot be removed, then the drawing showing the licenced discharge points should be updated accordingly.</p> <p>(Refer to Section 5.2 - Table 8, EPL # O6.2)</p>

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
5 Monitoring and Recording Conditions				
M1 Monitoring records				
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.		Note	
M1.2	All records required to be kept by this licence must be: <ul style="list-style-type: none"> a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them. 	SGS undertake the testing of the samples. Monitoring records for laboratory testing are emailed from SGS to Viva Energy. Viva Energy can also login to view the laboratory certificates. Records were sighted during the IEA dating back to 2014. Records of the volume discharged (Note: only parameter not recorded by SGS) have not been kept for 4 years because some data from the data logger on LDP 1 has been lost due to a software upgrade (This was identified in the previous IEA). The data logger information provided for the period since the previous IEA is complete (Copy provided).	Administrative Non-Compliance	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <ul style="list-style-type: none"> a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample. 	<p>SGS undertake the testing of the samples. SGS used to fill out the chain of custody form (sighted example, copy not provided), but it was noted that this does not necessarily show the date of the sample and person who took sample (Also refer to Section 6, Table 10, Recommendation # 12).</p> <p>This has been changed so Viva Energy operators now fill in the Chain of Custody Form. The process is described in the Water Management Manual (Copy provided) as follows:</p> <p><i>Label sample bottles PRIOR to taking the sample. (Note that it becomes difficult if the label is wet). Note that the sample bottles already have labels, but you must clearly mark the label with the following:</i></p> <ul style="list-style-type: none"> • PROJECT: Clyde • SAMPLE ID: This is already pre-labelled on the sample bottles by SGS • DATE & TIME: • SAMPLED BY: <p><i>NOTE: These labels must correspond with details completed on the laboratory chain of custody form i.e. the Sample ID, Sampling Date & Time.</i></p> <p>...</p> <p><i>Complete the Chain of Custody Form and include the originals with the samples. Retain a copy of the Chain of Custody Form for your records.</i></p> <p>Note: Item (d) not applicable for the volume recorded at LDP 1 as this is recorded by a data logger.</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M2 Requirement to monitor concentration of pollutants discharged				
M2.1	<p>For the purposes of Condition M2.1, Special Frequency 1 means that monitoring must be carried out monthly during any discharge at Point 1. If results of sample analysis indicate possible exceedances of the discharge limits for pollutants at Point 1 as specified in the table in condition L3.4, sampling from Point 1 must be carried out daily during any discharge until sample analysis confirms that the concentrations of pollutants are below the pollutant concentration limits for Point 1.</p> <p>Note: Daily sampling from Point 1 as defined by Special Frequency 1 is only required to be carried out for analytes suspected of exceeding concentration limits in the licence for relevant pollutants.</p>	<p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability). The reported results for LDP 1 indicate that monitoring has been undertaken monthly (since December 2014). This would appear to comply with this condition as no exceedances of the concentration limits in the licence are reported since the previous IEA (i.e. no records that would have then triggered daily sampling).</p>	Compliant	
M2.2	<p>Results of daily sampling at Point 1 as defined by Special Frequency 1 are not to be used when determining compliance with condition L3.1. The licensee must provide a representative sample from Point 1 during discharge in accordance with condition M2.1.</p>	<p>Not triggered (Refer to EPL # M2.1).</p>	Not Triggered	
M2.3	<p>For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:</p>	<p>Refer to EPL # M2.4.</p>	Note	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M2.4	<p>Water and/ or Land Monitoring Requirements</p> <p><i>REFER TO EPL FOR TABLE/S</i></p>	<p>Note: The sampling method, units of measure, and frequency of monitoring is specified at EPL # M2.4 (e.g. daily during any discharge for pH at LDP 2) and the required concentration limit/s are specified at EPL # L3.4 (e.g. pH 6.0—9.0 at LDP 2).</p> <p>Discharge normally occurs from LDP 1 (Biotreater effluent discharge), which requires daily or monthly monitoring.</p> <p>Monitoring for some of the LDPs is only required when there is a discharge (e.g. LDPs 28 and 29, which only require monitoring when there is an overflow event).</p> <p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability) (Note: Results are grouped for LDPs 23, 24, 25 and 27).</p> <p>The monitoring records reported on the Viva Energy website for the period since the previous IEA appear to comply with the sampling method, units of measure, and sample frequencies specified at EPL # M2.4 (Also refer to EPL # M2.1); however, it was not possible to verify that all measurements were taken '<24hrs prior to discharge' for LDPs 23, 24, 25 and 27. This was categorised as 'compliant' as there was no reported discharge from LDPs 23, 24 or 27, and only 3 low level discharges from LDP 25 (Refer to EPL # O6.1), since the previous IEA.</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M2.5	Monitoring results for Point 26 collected in accordance with the requirements of condition M2.1 can be used to determine compliance with pollutant concentration limits specified in the table in condition L3.4 for concentration limits for Point 4.	<p>There are no concentration limits in the EPL for LDP 26. Measurements at LDP 26 can be used to show compliance with the limits for LDP 4 when discharging from LDP 26 to LDP 4. Normally LDP 26 is a transfer point from B2 to the main interceptor (i.e. does not discharge directly off-site).</p> <p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability). It is noted that:</p> <ul style="list-style-type: none"> • There has been no reported discharge from LDP 4 since the previous IEA; • Despite there being no reported discharge from LDP 4, monitoring results have been reported for LDP 26 (Presumably during transfers from B2 to the interceptor); and • The TSS measured at LDP 26 has exceeded the 50 mg/l limit for LDP 4; however, this is not an actual exceedence because there was no discharge from LDP 4 at the same time. <p>The results reported on the website for LDP 26 may give the impression that there have been exceedences, which is incorrect.</p>	Compliant	<p>2018/17 – EPL # M2.5 should be reviewed with the EPA to determine if monitoring and reporting results at LDP 26 is required when there is no actual discharge via LDP 4.</p> <p>Consider amending the frequency definition in EPL # M2.4 for Point 26 from “daily during any discharge” to “daily during any discharge from Point 4”.</p> <p>(Refer to Section 5.2 - Table 8, EPL # M2.5)</p>
M3 Testing methods - concentration limits				
M3.1	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.	Use of the Approved Methods Publication (Or other approved methods) was not verified during the audit; however, testing of pollutant concentrations is undertaken by SGS, which is a NATA accredited laboratory (Accreditation No. 2562, site no. 4354) and accredited for compliance with ISO/IEC 17025 (Refer to https://www.nata.com.au/accredited-facility).	Not Verified	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M4 Testing methods - load limits				
M4	Note: Division 3 of the Protection of the Environment Operations (General) Regulation 2009 requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.	AECOM undertake the load-based calculations using the TANKS software, which is a method accepted by the EPA. The results are then reported in Section D of the Annual Return to the EPA (Sighted for 2016 and 2017). The actual load calculation method is also listed in the Annual Return for each pollutant (e.g. '437 (other EPA approved method)').	Compliant	
M5 Recording of pollution complaints				
M5.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	The complaints register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project . This includes records of complaints from 2015 onwards (Also refer to Section 3).	Compliant	
M5.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	The process for management of complaints is included in Section 3.3 of the EMS (Copy provided) and includes the requirements listed under a) to f). The complaints register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project .	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	The complaints register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project . This includes records of complaints associated with the CTCP project from 2015 onwards (Also refer to Section 3). Note: A review of records of complaints prior to approval of the CTCP on 14 January 2015 was excluded from scope of IEA. This was categorised as 'not triggered' as the CTCP has not operated for four years.	Not Triggered	
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.		Not Verified	
M6 Telephone complaints line				
M6.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	The process for management of complaints is included in Section 3.3 of the EMS (Copy provided), which includes a 24-hour hotline telephone number (02 9897 8096). This telephone number is provided on the Viva Energy website (https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/about-us).	Compliant	
M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	The 24-hour hotline telephone number (02 9897 8096) is provided on the Viva Energy website (https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/about-us).	Compliant	
M6.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.		Note	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
M7 Requirement to monitor volume or mass				
M7.1	<p>For each discharge point or utilisation area specified below, the licensee must monitor:</p> <ul style="list-style-type: none"> a) the volume of liquids discharged to water or applied to the area; b) the mass of solids applied to the area; c) the mass of pollutants emitted to the air; <p>at the frequency and using the method and units of measure, specified below.</p> <p style="text-align: center;"><i>REFER TO EPL FOR TABLE/S</i></p>	<p>Note: Only the volume of liquids discharged to water under item a) applies for the LDPs listed in the EPL.</p> <p>Note: The frequency of monitoring and sampling method is specified at EPL # M7.1 (e.g. daily during any discharge by flow meter and continuous logger at LDP 1) and the required volume limit/s are specified at EPL # L4.1 (Note: Volume limits only apply for LPDs 1, 2, 4 and 30 – e.g. 5,000 kilolitres per day at LDP 2).</p> <p>Monitoring results (up to April 2018) for all LDPs are reported on the Viva Energy website (https://www.vivaenergy.com.au/about-us/environment-and-sustainability). It is noted that:</p> <ul style="list-style-type: none"> • LDP 1 is being monitored by a flow meter and continuous logger as required by this condition (Also refer to EPL # L4.1). • There has been no reported discharge from LDP 2, 4 or 30 since the previous IEA. 	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
6 Reporting Conditions				
R1 Annual return documents				
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> 1. a Statement of Compliance, 2. a Monitoring and Complaints Summary, 3. a Statement of Compliance - Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	<p>Submission of the Annual Returns is recorded on the EPA website. Annual Returns are submitted electronically.</p> <p>Since the previous IEA, Annual Returns have been submitted on 30 August 2016 and 5 September 2017 (Copies provided). The Annual Return for 2018 is pending.</p>	Compliant	
R1.2	<p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p>	Refer to EPL # R1.1	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <ul style="list-style-type: none"> a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period. 	<p>The change of licensee (Shell to Viva Energy) was managed as an update to the licence. This is evidenced by the licence variation records on the EPA website.</p>	Compliant	
R1.4	<p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <ul style="list-style-type: none"> a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates. 	<p>Refer to EPL # R1.3.</p>	Not Triggered	
R1.5	<p>The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').</p>	<p>Submission of the Annual Returns is recorded on the EPA website. Since the previous IEA, Annual Returns have been submitted on 30 August 2016 and 5 September 2017 (Copies provided). The Annual Return for 2018 is pending.</p> <p>Note: All Annual Returns are now required to be submitted electronically (i.e. not by registered post).</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
R1.6	<p>Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:</p> <ul style="list-style-type: none"> a) the assessable pollutants for which the actual load could not be calculated; and b) the relevant circumstances that were beyond the control of the licensee. 		Not Triggered	
R1.7	<p>The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.</p>	<p>Electronic records were sighted during the IEA showing retention of Annual Returns dating back to 2013.</p>	Compliant	
R1.8	<p>Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <ul style="list-style-type: none"> a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder. <p>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</p> <p>Note: An application to transfer a licence must be made in the approved form for this purpose.</p>	<p>Submission of the Annual Returns is recorded on the EPA website. The annual returns for 2015-2016 and 2016-2017 were sighted (Copies provided). The Statement of Compliance (Section H) in both Annual Returns has been signed.</p> <p>Note: The pages in the Monitoring and Complaints Summary section have not been separately signed as this is now covered by the signature in the Statement of Compliance (Section H).</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
R2 Notification of environmental harm				
R2.1	<p>Notifications must be made by telephoning the Environment Line service on 131 555.</p>	<p>The EPA was notified by phone (Call number C02691-2017) of the incident involving the discharge of diluted dust suppressant and herbicide to Duck Creek (Refer to Section 3.2) (Verified in email from EPA dated 23-Feb-17, copy provided).</p> <p>The EPA was notified by phone (Call number C11329-2016) of the incident involving the TSS exceedence on 20-Jul-16 (Refer to Section 3.3) (Verified in email from EPA dated 22-Aug-16, copy provided).</p> <p>Note: Evidence of notification of the other TSS exceedences (Refer to Section 3.3) was not sighted; however, this was categorised as 'compliant' as the evidence requested by the auditor was readily provided by Viva Energy for the sampled incidents.</p>	Compliant	
R2.2	<p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>	<p>The EPA was notified of the incident involving the discharge of diluted dust suppressant and herbicide to Duck Creek (Refer to Section 3.2) (Verified in email from EPA dated 23-Feb-17, copy provided). This email was then forwarded to the DP&E (Email to DP&E dated 23-Feb-17, copy provided) and the report required under this condition was provided to the EPA and DP&E by email 2-Mar-17 (Copy provided).</p> <p>Note: Evidence of providing written details for the TSS exceedences (Refer to Section 3.3) was not sighted; however, this was categorised as 'compliant' as the evidence requested by the auditor was readily provided by Viva Energy for the sampled incident.</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
R3 Written report				
R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <ul style="list-style-type: none"> a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event. 	<p>The EPA requested specific information be provided for the incident involving the discharge of diluted dust suppressant and herbicide to Duck Creek (Refer to Section 3.2) (Verified in email from EPA dated 24-Feb-17, copy provided). The requested information was provided to the EPA and DP&E by email 2-Mar-17 (Copy provided).</p>	Compliant	
R3.2	<p>The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.</p>	<p>Refer to EPL # R2.2 and R3.1.</p>	Compliant	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
R3.3	<p>The request may require a report which includes any or all of the following information:</p> <ul style="list-style-type: none"> a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters. 	<p>The EPA requested the information listed in a), b), c), e), f) and g) be provided for the incident involving the discharge of diluted dust suppressant and herbicide to Duck Creek (Refer to Section 3.2) (Verified in email from EPA dated 24-Feb-17, copy provided). The EPA also requested copies of the Safety Data Sheets for the materials involved.</p> <p>The requested information was provided to the EPA and DP&E by email 2-Mar-17 (Copy provided).</p>	Compliant	
R3.4	<p>The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.</p>	<p>This does not appear to have been triggered for the reported incidents at the terminal since the previous IEA; however, this was not verified.</p>	Not Verified	

EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
7 General Conditions				
G1 Copy of licence kept at the premises or plant				
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	<p>The EPL is accessible via the Viva Energy website (Sighted – Note: This is a link to the EPL on the EPA website).</p> <p>Viva Energy advised that the EPL is also held at the main control room (Not verified).</p> <p>This was categorised as ‘compliant’ because site personnel were able to easily locate the current EPL (via the website link) even though a hard copy was not sighted at the premises.</p>	Compliant	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		Not Verified	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Refer to EPL # G1.1.	Compliant	
G2 Signage				
G2.1	The location of all licensed discharge point numbers listed in the table in condition P1.2 must be clearly marked by signs at the premise. Signs must include the point identification number used in this licence and be located as close as practical to the point.	<p>The locations of the accessible LDPs were visited during the site inspection. These are clearly marked by signs (Refer to Section 5.3, Table 9, ID # 11); however, a sign could not be located for LDP 24.</p> <p>Viva Energy advised that this LDP is not normally used as it is only for dewatering a bunded area in the tank farm, such as from water pressure testing of storage tanks (Refer to EPL # O6.1). LDP 24 is a flexible connection to send water to the B2 basin (i.e. not directly off-site). This is consistent with the monitoring data published on the Viva Energy website which does not include any recorded discharges via LDP 24 dating back to June 2014 (https://www.vivaenergy.com.au/about-</p>	Non-Compliant	<p>2018/18 – The location of LDP 24 should be clearly marked by a sign (As required by EPL # G2.1).</p> <p>(Refer to Section 5.2 - Table 8, EPL # G2.1)</p>


EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
		<p>us/environment-and-sustainability). Nonetheless, Viva Energy does not currently comply with this condition for LDP 24.</p> <p>A sign was observed for LDP 11 (Refer to Section 5.3, Table 9, ID # 12). This is no longer listed as a LPD in the EPL and the signage should be removed (or revised if it needs to be retained for other operational reasons).</p>		<p>2018/19 – There appears to be a typographical error in EPL # G2.1 – There is no condition P1.2 in the current EPL. This appears to be as a result of deleting P1.1 from an earlier version of the EPL. P1.2 should be changed to P1.1 in EPL # G2.1.</p> <p>(Refer to Section 5.2 - Table 8, EPL # G2.1)</p> <p>2018/20 – A sign was observed for LDP 11 (Refer to Section 5.3, Table 9, ID # 12). This is no longer listed as a LPD in the EPL and the signage should be removed (or revised if it needs to be retained for other operational reasons).</p> <p>(Refer to Section 5.2 - Table 8, EPL # G2.1)</p>
G3 Other general conditions				
G3.1	Completed Programs <i>REFER TO EPL FOR TABLE/S</i>	Note: There are no current PRPs.	Note	


EPL #	Condition of EPL	Finding/s	Compliance Assessment	Corrective Action/s
8 Pollution Studies and Reduction Programs				
U1 Soil and Groundwater monitoring program Reporting on Soil and Groundwater Monitoring and Investigation Activities				
U1.1	<p>On or before 31 March 2011 and annually thereafter, a report must be submitted to the EPA's Manager Sydney Industry. The report must include:</p> <ul style="list-style-type: none"> (a) a summary of groundwater monitoring results for the previous 12 months; (b) details of any soil or groundwater investigations undertaken and the results of such investigations; (c) details of the progress against works proposed in the previous year's report; (d) an update of the conceptual site model (CSM) if conditions change significantly; (e) an update of the Soil and Groundwater Monitoring Program (SGMP) if required. 	<p>The Annual Progress Report for 2017 was sighted (Dated 13-Mar-18, copy provided). Sections 3-7 of this report address each of the items (a) to (e) (i.e. item (a) is addressed in Section 3, etc.).</p> <p>Evidence of submission of the report to the EPA was sighted (Email to EPA dated 14-Mar-18, copy provided).</p>	Compliant	


5.3 Site and Equipment Inspections


Some findings from the site and equipment inspections are included in Sections 5.1 and 5.2. Additional findings are listed below.


Table 9 Audit Findings (Site and Equipment Inspections – 31 May 2018)


ID #	Finding/s	Corrective Action/s
1	<p>Grass has been grown on the former Mobil tank farm site to minimise dust generation and erosion. Hay bales and sediment fences were also observed to be in use for erosion control.</p> <p style="text-align: center;">Photograph 1 Grass, Hay Bales and Sediment Fences at Reclaimed Mobil Tank Farm Area</p> <div style="display: flex; justify-content: space-around;">   </div>	


ID #	Finding/s	Corrective Action/s
2	<p>Solar powered lights were observed to be installed at some locations in the terminal.</p> <p>Photograph 2 Example Solar Powered Light</p> 	



ID #	Finding/s	Corrective Action/s
3	<p>Substation 32 was observed to be constructed on a platform above ground level.</p> <p style="text-align: center;">Photograph 3 Substation 32</p> 	


ID #	Finding/s	Corrective Action/s
4	<p>Some tank farm bund walls have been reinforced with shot-creting.</p> <p>Photograph 4 Example Shot-Creting of Tank Farm Bund Walls</p> 	


ID #	Finding/s	Corrective Action/s
5	<p>A dust and erosion control coating (Product Name: Total Ground Control Plus, copy of SDS provided), was applied in November 2016 to the former refinery processing areas. Some of this green coloured material was sighted during the site inspection. Some dry areas of ground were also observed.</p> <p style="text-align: center;">Photograph 5 Example of Dry Area of Ground</p> 	Refer to 2018/02 .


ID #	Finding/s	Corrective Action/s
6	<p>Sand bags are provided along some surface drains.</p> <p>Photograph 6 Example of Sand Bags Adjacent to Surface Drains</p> 	

ID #	Finding/s	Corrective Action/s
7	<p>A bin is located on site for the temporary storage of biotreater filter cake prior to its disposal off-site.</p> <p>Photograph 7 Bin for Storage of Biotreater Filter Cake</p> 	<p>Refer to 2018/13.</p>

ID #	Finding/s	Corrective Action/s
8	<p>The sludge dewatering and land farm areas were sighted during the site inspection.</p> <p style="text-align: center;">Photograph 8 Sludge Dewatering Area</p>  <p style="text-align: center;">Photograph 9 Land Farm Area</p> 	<p>Refer to 2018/14 and 2018/15.</p>

ID #	Finding/s	Corrective Action/s
9	<p>The waste transfer station was sighted during the site inspection and appeared to be well organised.</p> <p style="text-align: center;">Photograph 10 Waste Transfer Station</p> 	

ID #	Finding/s	Corrective Action/s
10	<p>Tanks were observed to be in banded areas (hydrocarbons and water treatment chemicals).</p> <p style="text-align: center;">Photograph 11 Example Storage Tanks</p> 	

ID #	Finding/s	Corrective Action/s
11	<p>Signage was observed for the LDPs (excluding obsolete LDP 11 are included). Refer to EPL # G2.1.</p> <p style="text-align: center;">Photograph 12 Example of Signage for LDPs</p> 	Refer to 2018/18 .

ID #	Finding/s	Corrective Action/s
12	<p>A sign was observed for LDP 11, which is not included in the current EPL.</p> <p style="text-align: center;">Photograph 13 Sign for LDP 11</p> 	Refer to 2018/20 .

6 STATUS OF ACTIONS FROM PREVIOUS INDEPENDENT ENVIRONMENTAL AUDIT

The status of each recommendation from the previous independent environmental audit was reviewed with Viva Energy and a summary is included in the following table.

Table 10 Status of Recommendations from Previous IEA

Prior Audit Rec. ID	Recommendation	Findings	Status	Link to 2018 Audit ID
1	Publish a complaints register on the Viva Energy website. Ensure that processes are in place for all environmental complaints relating to the licensed premises, including those received directly by contractors, to be included in complaints register and reporting.	Refer to CC # D9. The complaints register is available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project . This includes records of complaints from 2015 onwards (Also refer to Section 3). The process for management of complaints is included in Section 3.3 of the EMS (Copy provided).	CLOSED	
2	Publish a report addressing compliance with the conditions of the EPBC approval on the Viva Energy website and ensure that future annual reports are published by the due date of 16 April each year.	Three reports are now available on the CTCP website: https://www.vivaenergy.com.au/about-us/terminals-and-refinery/clyde/conversion-project/conversion-project . These reports are dated July 2016, April 2017 and April 2018. Note: The report posted in July 2016 was made in response to this recommendation. Subsequent reports have now been submitted by the required date; therefore this is now closed.	CLOSED	
3	It should be noted as a noncompliance in the 2015-16 Annual Return that samples collected from EPA Point 26 in January 2016 were not analysed for total petroleum hydrocarbons.	Refer to EPL # M2.2. The non-compliance for EPA Point 26 in January 2016 was reported as a non-compliance in the 2015-2016 Annual Return (Sighted, copy provided).	CLOSED	
4	Continue consideration of options for dust control measures once the demolition contractor has vacated the Site.	A dust and erosion control coating (Product Name: Total Ground Control Plus, copy of SDS provided), was applied in November 2016 to the former refinery processing areas. Some of this green coloured material was sighted during the site inspection.	CLOSED	

Prior Audit Rec. ID	Recommendation	Findings	Status	Link to 2018 Audit ID
5	Continue consideration of options to ensure adequate erosion and sediment control measures are maintained once the demolition contractor has vacated the Site.	A dust and erosion control coating (Product Name: Total Ground Control Plus, copy of SDS provided), was applied in November 2016 to the former refinery processing areas. Some of this green coloured material was sighted during the site inspection.	CLOSED	
6	Erect flood warning signs based on the finalised Flood Assessment Report.	<p>Note: CC # C41 requires that “The Applicant shall ensure that flood warning signs are maintained throughout the site, during construction, demolition and operation. The flood warning signs shall indicate the site is prone to flooding and shall show the location of assembly and evacuation points, which are above the 1% AEP.” and it is reported in Section 2.5 of the Flood Assessment Report (Copy provided) that “Personnel responsible for Viva Energy’s Flood Emergency Response Plan have been advised of the outcomes of this flood assessment and will respond to all aspects of Condition C41”.</p> <p>Viva Energy advised that assembly and evacuation signs are not provided as this information is included in the Flood Emergency Response Plan (Copy provided) and communicated during the site induction. Personnel evacuation routes are shown on flood map diagrams in the Flood Emergency Response Plan (Copy provided) and it was verified during the site inspection that a copy of this plan is held at the main control room.</p> <p>This recommendation has been closed as the final Flood Assessment Report did not include any special requirements regarding signage. However, a recommendation has been included for CC # C41 since flood warning signs are not currently provided.</p>	CLOSED	2018/03
7	Document how the integrity of bunds is assessed based on visual inspection (e.g. water retention after rain) and the review of groundwater monitoring.	<p>The checklist for inspection of bund areas (DRN-008-002 Inspect Tank Bunded Area) includes the following activities:</p> <ul style="list-style-type: none"> • Visually inspect bund walls for reduced height due to erosion or settlement to ensure bund capacity has not been reduced. • Check that bund walls or bund floors have no obvious penetrations or cracks that will reduce bund containment integrity. 	CLOSED	

Prior Audit Rec. ID	Recommendation	Findings	Status	Link to 2018 Audit ID
		<ul style="list-style-type: none"> • Major breaches in bunds must be reported and repairs actioned in an urgent sense. • Check that all bund drainage valves operate correctly and lubricate to ensure ease of operation. • Arrange replacement valves if repairs are not practical. • Inspect bund floor area for unacceptable ground cover growth and advise the site operator if the bund floor area requires maintaining. • Record inspection details and maintenance work required on work order. • Inspect the bunded areas with HDPE or Nylex liners for exposure of lining and any evidence of bund floor surface area damage or construction markings that would compromise the liner permeability. • Discuss permeability of bunded areas with HDPE or Nylex liners with operators to ascertain that after periods of rain the water is retained to prove permeability. <p>An example of the reported findings from an inspection was sighted (WO6000295288, copy provided – findings only). This covered multiple bunded tank areas (Tank Farms A2, A3, B, etc.).</p> <p>The integrity of the bund walls has also been improved since the previous IEA by application of shot-creting (Refer to Section 5.3, Table 9, ID # 4). An impermeable clay layer has also been provided for the diesel tanks at Tank Farm B (Note: This was possible in this tank farm because all of the tanks had been completely removed).</p>		
8	Consider improvements to the record of wastes received from Gore Bay Terminal to include the quantity in each receipt.	<p>‘Spent’ activated carbon (AC) is received from Gore Bay, which is then trucked off-site (Note: This is categorised as Waste Code N205 - Residues from industrial waste treatment/disposal operations).</p> <p>The quantity transported to the Terminal is recorded on the ‘Viva Waste Summary’ spreadsheet (Copy provided for 2016).</p>	CLOSED	

Prior Audit Rec. ID	Recommendation	Findings	Status	Link to 2018 Audit ID
9	Continue consultation with the EPA on options for including overflows from the Main Interceptor, Northern Interceptor and Tankfarm B Retention Basin as licensed discharge points on the EPL.	There <u>are</u> limits in the EPL for LDPs 28 and 29 (Northern Interceptors), which are covered in EPL # L3.5. LDPs 2 (Main Interceptor) and 4 (B2 system pump out) are locations where overflow could occur (but can also very infrequently release for operational reasons). This why there are limits in both EP # L3.4 and L3.5 that are relevant for overflow.	CLOSED	
10	Ensure that all pages attached to Section C of the EPL Annual Return are initialled by the person(s) who signed the certification section of the Return.	The annual returns for 2015-2016 and 2016-2017 were sighted (Copies provided). The pages in Section C cannot be initialled as submission of the Annual Return is now entirely electronic (via on-line form). This recommendation is no longer applicable and has therefore been marked as 'closed'.	CLOSED	
11	Improvements to the PIRMP should be considered as part of the next update or test of the plan.	<p>Viva Energy have a Pollution Incident Response Management Plan (PIMRP, dated 10-Feb-16, copy provided). It is reported in the PIRMP that it has "been prepared in accordance with the requirements set out in Part 5.7A of the Protection of the Environment Operations Act 1997 (POEO Act) and the Protection of the Environment Operations (General) Amendment (PIRMP) Regulation 2012".</p> <p>Viva Energy's initial response to this audit recommendation was that the PIRMP would be modified to improve linkages with the ERP and to update the content within Part B of the PIRMP document.</p> <p>The matters to be included in the PIRMP required under section 153C (d) of the POEO Act and Section 98C of the POEO (General) Regulation 2009 are tabulated clause by clause in Part B of the PIRMP. This includes cross-references to existing documents such as the ERP.</p>	CLOSED	
12	Ensure consistency in labelling of sample location on water samples collected from monitoring/discharge points and consider options to improve the recording of the name of the sampler.	<p>Refer to EPL # M1.3.</p> <p>The chain of custody documentation has been amended to ensure the name of the sampler is recorded (Sighted, copy not provided).</p>	CLOSED	

7 REFERENCES

- 1 Ramboll Environ Pty Ltd, 15 July 2016, *Independent Environmental Audit, Clyde Terminal*.
- 2 Department of Planning and Environment, 14 January 2015, *Development Consent, Section 89E of the Environmental Planning and Assessment Act 1979*, DA No. SSD 5147.
- 3 Environment Protection Authority, 21 November 2016, Environment Protection Licence No. 570.
- 4 NSW Government, October 2015, *Independent Audit Guideline, Post-Approval Requirements for State Significant Developments*.
- 5 Standards Australia, AS/NZS ISO 19011:2014, *Guidelines for Auditing Management Systems*.

Appendices

Appendix A Documents Reviewed

Document Title	Document No.	Rev. No.	Date	Copy Taken? (Yes/No)
SCHEDULE B ADMINISTRATIVE CONDITIONS				
CDCL (Cable Drainage Location Drawing) for Civil Excavations	16034	-	5-May-16	Y (E)
Environmental Management Manual - Operation (Approval letter from DP&E)	-	-	17-Sep-15	Y (E)
Environmental Management Strategy (Approval letter from DP&E)	-	-	16-Jun-15	Y (E)
Letter from Viva Energy to DP&E regarding consent condition B8	-	-	27-Apr-16	Y (E)
Payment Receipt from Parramatta City Council for Section 94A Contributions	-	-	1-May-15	Y (E)
Pre-Demolition Management Plans (Approval letter from DP&E)	10/09405-4	-	5-Mar-15	Y (E)
Section 94A Contributions (Approval letter from DP&E)	10/09405-7	-	31-May-16	Y (E)
SCHEDULE C ENVIRONMENTAL PERFORMANCE AND MANAGEMENT				
Approval of Flood Assessment Report by Parramatta City Council (Email dated 18 May 2016).	-	-	18-May-16	Y (E)
Asbestos Inspection Survey 2017	VIVA-170120	-	16-Feb-17	Y (E)
Asbestos Register (Excel spreadsheet)	-	-	2017	Y (E)
Biodiversity Management Plan	-	4	30-Nov-16	Y (E)
Clyde Refinery Drainage Layout	Drawing No. CLR134150	B	11-Dec-07	Y (HC)
Clyde Terminal Conversion Project: Historical Archaeological Assessment	1400740	2	May-15	Y (E)
Consent Condition C59, A-G (Email from Viva Energy to DP&E)	-	-	18-Dec-15	Y (E)
Consent Condition C59, A-G (Email from DP&E to Viva Energy)	-	-	3-Feb-16	Y (E)
Construction of new electrical substations (Approval letter from DP&E)	10/09405-5	-	29-Jul-15	Y (E)
Construction works outside standard hours - 11 and 18 March 2018 (Approval letter from DP&E)	10/09405-7 OBJ16/11059	-	8-Mar-18	Y (E)
Demolition Work Plan	-	F	3-Oct-14	Y (E)
Design Change Proposal (DCP) documentation for Tank Farms E1-E2	DCP-65	-	28-Jul-16	Y (E)

Document Title	Document No.	Rev. No.	Date	Copy Taken? (Yes/No)
Design Change Proposal (DCP) documentation for Tank Farms B/B1	DCP-86	-	25-Oct-16	Y (E)
Emergency Response Plan and Safety Management System – Stage 1 (Approval letter from DP&E)	10/09405-5	-	Feb-16	Y (HC)
Emergency Response Plan and Safety Management System – Stage 2 (Approval letter from DP&E)	10/09405-6	-	May-16	Y (HC)
Environmental Management Manual, Clyde Terminal	OPS-075-M	-	9-May-18	Y (E)
Environmental Monitoring During Stack Blasting	ENAU RHOD063 97AB	2	16-Mar-16	Y (E)
Environmental monitoring during the explosive felling of the redundant catalytic cracking unit (CCU) at the Clyde Terminal: 05 June 2015 – 09 June 2015	EMS15 3207	-	16-Jun-15	Y (E)
Explosive Demolition of Five Chimney Stacks (Approval letter from DP&E)	10/09405-6	-	10-Feb-16	Y (E)
Fire Safety Study (Approval letter from FRNSW)	BFS15/881 (8210)	-	10-Jun-16	Y (E)
Flood Assessment Report	115048	2	2-Feb-16	Y (E)
Flood Emergency Response Plan	-	-	5-Sep-14	Y (E)
Hazard Audit 2016 (Approval letter from DP&E)	SSD 5147	-	14-Oct-16	Y (E)
Hazard Studies (Approval letter from DP&E)	10/09405-5	-	14-Jul-15	Y (E)
Health Safety Security and Environment (HSSE) Plan	CTCP-000-QHS- 1103-00004_2		27-May-16	Y (E)
Heritage Assessment (Approval letter from DP&E)	10/09405-5	-	8-Jul-15	Y (E)
Operational Air Quality Monitoring Program (Approval letter from DP&E)	10/09405-4	-	01-Oct-15	Y (E)
Pre-Demolition Management Plans (Approval letter from DP&E)	10/09405-4	-	5-Mar-15	Y (E)
Pre-Startup Compliance Report (Approval email from DP&E)	-	-	May-16	Y (E)
Quarter 4 (2016) Groundwater Monitoring Event – Clyde and Parramatta Terminal	0377775	Final	2-Mar-17	Y (E)
Radiation Management Licence Variation Application	-	-	31-Mar-16	Y (E)
Soil and Water Management Plan	-	5	3-May-18	Y (E)
Soil Management (Excel spreadsheet)	-	-	-	Y (E)
Traffic Management Plan	-	4	30-Nov-16	Y (E)
Transport Certificate	2T00756280	-	9-Nov-16	Y (E)
Virgin Excavated Natural Material Assessment – Wallacia Soils			14-Apr-16	Y (E)

Document Title	Document No.	Rev. No.	Date	Copy Taken? (Yes/No)
Viva Waste Summary (Excel spreadsheet)	-	-	2016	Y (E)
Waste Characterisation, Virgin Excavated Natural Material	S008258_W05	-	21-Mar-18	Y (E)
SCHEDULE D ENVIRONMENTAL MANAGEMENT, REPORTING & AUDITING				
Annual Environmental Performance Review, Reporting Period: 1st January 2016 to 31st December 2016	-	-	31-Jul-17	Y (E)
Annual Environmental Performance Review (1 January to 31 December 2016) (Letter from DP&E)	SSD 5147	-	28-Aug-17	Y (E)
Biodiversity Management Plan	-	4	30-Nov-16	Y (E)
Construction and Demolition Air Quality Management Plan	-	3	30-Nov-16	Y (E)
Environmental Management Strategy	CTCP-000-ENV-1145-00001	3	10-May-18	Y (E)
Environmental Management Strategy (Letter from DP&E)	10/09405-4	-	16-Jun-15	Y (E)
Independent Environmental Audit (15 July 2016) (Letter from DP&E)	SSD 5147	-	24-Apr-17	Y (E)
Independent Environmental Audit (15 July 2016) (Letter from DP&E)	SSD 5147	-	26-Apr-17	Y (E)
Independent Environmental Audit, Clyde Terminal (Ramboll Environ Pty Ltd)	AS121989	-	15-Jul-16	Y (E)
Pre-Demolition Management Plans (Approval letter from DP&E)	10/09405-4	-	5-Mar-15	Y (E)
Soil and Water Management Plan	-	5	3-May-18	Y (E)
ENVIRONMENT PROTECTION LICENCE				
Analytical Report for Tank 37 Paint Samples	SE151113R0	-	14-Apr-16	Y (E)
Annual Progress Report (2017)	0425135	Final	13-Mar-18	Y (E)
Annual Progress Reports - Clyde and Gore Bay Terminals (Email to EPA)	-	-	14-Mar-18	Y (E)
Annual Return	881/17	-	5-Sep-17	Y (E)
Annual Return	-	-	30-Aug-16	Y (E)
Biotreater flow rates (i.e. volume of water discharged via LDP 1 – Excel spreadsheet with data for 2-Jul-16 to 1-Jul-17)	-	-	-	Y (E)
Complaints Register	-	-	Apr-18	Y (E)
Environmental Management Strategy	CTCP-000-ENV-1145-00001	3	10-May-18	Y (E)
Environment Protection Licence No. 570	-	-	21-Nov-16	Y (E)

Document Title	Document No.	Rev. No.	Date	Copy Taken? (Yes/No)
EPA Notification - 20 July 2016 Overflow (Email from Viva Energy to EPA)	-	-	19-Aug-16	Y (E)
EPA Notification - 20 July 2016 Overflow (Email from EPA to Viva Energy)	-	-	22-Aug-16	Y (E)
Monitoring results (up to April 2018) for all LDPs – accessed from the website https://www.vivaenergy.com.au/about-us/environment-and-sustainability	-	-	-	Y (E)
RE: 23-Feb-2017 Customer Feedback for Call C02691-2017 (Emails from Viva Energy to EPA)	-	-	24-Feb-17 2-Mar-17	Y (E)
RE: 23-Feb-2017 Customer Feedback for Call C02691-2017 (Emails from EPA to Viva Energy)	-	-	24-Feb-17	Y (E)
Transport Certificate	2T00849507	-	7-Dec-17	Y (E)
Transport Certificate	2T00756280	-	9-Nov-16	Y (E)
Viva Waste Summary (Excel spreadsheet)	-	-	2016	Y (E)
Water Management Manual	OPS-076-M	-	9-May-18	Y (E)
ACTIONS FROM PREVIOUS IEA				
Complaints Register	-	-	Apr-18	Y (E)
EPBC Act Referral 2013/6878, Clyde Terminal Conversion Project, Annual Compliance Report – 2016	-	-	Aug-16	Y (E)
EPBC Act Referral 2013/6878, Clyde Terminal Conversion Project, Annual Compliance Report – 2017	-	-	Apr-17	Y (E)
EPBC Act Referral 2013/6878, Clyde Terminal Conversion Project, Annual Compliance Report – 2018	-	-	Apr-18	Y (E)
Environmental Management Strategy	CTCP-000-ENV-1145-00001	3	10-May-18	Y (E)
Extracts from DRN-008-002 Inspect Tank Bunded Area and WO6000295288	-	-	-	Y (E)
Flood Assessment Report	115048	2	2-Feb-16	Y (E)
Flood Emergency Response Plan	-	-	5-Sep-14	Y (E)
Material Safety Data Sheet, Total Ground Control Plus	-	1	4-May-16	Y (E)
Pollution Incident Response Management Plan	CGBT-HSE-010-M	-	10-Feb-16	Y (E)
Viva Waste Summary (Excel spreadsheet)	-	-	2016	Y (E)

Legend: E = Electronic copy, HC = Hard Copy.

Appendix B Incident Records

The following environmental incidents were reported since 1 August 2016.

Ref. No.	Date	Description
007704	12-Oct-16	Black oil (assumed) rising to surface from underground, in decommissioned TF B2. North west corner, near decommissioned pit. Believe TF E1 tundish water drains pass underground nearby, TBC on underground services drawing. Difficult to estimate quantity as is in pool on ground, possibly sitting on water. Continuous bubbles rising to surface.
007786	13-Oct-16	On the 13th October, a J bin containing pipe sections removed from the Clyde site was sent to scrap metal merchant. On arrival at scrap metal merchant's weigh-in station the bin was rejected after registering an erroneous reading of contamination in the waste load.
007934	17-Oct-16	Recorded observations at the time of sampling (2 September 2016) were that the overflow was clear. Due to this observation, the overflow was not reported to EPA as a potential non-compliance. Upon receipt of analytical results from lab (12 September 2016), we requested the laboratory to confirm results as they were different to recorded observations. Laboratory advised samples were taken in tins rather than bottles, also provided photographs indicating sediment in the sample: at the time this was interpreted as rust. EPA were notified of elevated TSS results in this sample and advised of sampling methodology. Subsequent investigation by laboratory confirmed sediment in the sample jar. This indicates laboratory results were correct: samples taken in the incorrect container did not affect TSS results.
008655	4-Nov-16	A contractor was employed to apply a dust suppressant material to the former refinery processing areas. The MSDS for the product was reviewed and deemed safe for application by the Project Manager and Viva Energy Environment and Hygiene resources. The process of application involved decanting 1000L IBC's of product into a 15,000L sub-contracted mobile water cart via a small 240V pump and filling the balance of the cart with water. Post decanting of each IBC into the water cart, the sub-contractor used an excessive amount of water to flush the pump to ensure it did not clog up preventing decanting of the next IBC into the cart. The excessive volume of water used by the contractor to flush the pump resulted in a small amount of heavily diluted dust suppressant following the natural surface level of the ground approximately 190m to the bank of Duck Creek where it was dispersed.
008784	1-Mar-17	Discharge Point 29 exceeded TSS limit 140mg/L vs. 80mg/L
009116	3-Apr-17	Bay 4 overflow exceeded oil and grease limit 12 vs. 10mg/L
011380	20-Jan-18	At approx. 22:00hrs, after completing the discharge of compartment 5, the driver connected the flexible hose to compartment 4. He then removed the camlock cap from manifold port 1 to allow compartment 3 to discharge at the same time as compartment 4. When the cap was removed, slops began to pour from the manifold to ground. Terminal controller was called to attend the slops import manifold as a spill had occurred. Upon arrival, hydrocarbons were observed on the concrete pad at the manifold. It was confirmed that the truck and slops transfer system were now isolated to prevent any additional loss of containment. PTA coordinator advised that he had dipped the PTA slops tank before and after loading. Recorded volume before loading = 16,703 L. Recorded volume after loading = 5,328 L. Volume loaded = 11,375 L. Total import volume to T91 (Tankmaster ticket #19039) = 11,280 L. 11,375 - 11,280 = 95 L. As noted below, the manifold and connecting pipework were observed to be empty when changing compartments. This could account for a significant percentage of lost slops. i.e. - significantly less than 95 L spilled to deck.
011604	12-Feb-18	Whilst commissioning the new Coalescer Water Separator, a blind flange at the instrument connection on the north side of the vessel began to leak Jet product.
012168	9-Apr-18	Operating excavator when hydraulic hose failed resulting in <100ml dropping to ground