



Clyde Terminal

Annual Environmental Performance Review

Reporting Period: 01 January to 31 December 2019

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1 Introduction

Viva Energy Australia Pty Ltd (Viva Energy) operate the Clyde Terminal, which receives, stores, doses and distributes finished petroleum products.

Following the closure of the Clyde Refinery in late 2012 and the cessation of refining activities, Viva Energy proposed to undertake the following works at the terminal:

- **Demolition works** – The removal of redundant refinery processing units, tanks and other infrastructure;
- **Construction works** – The carrying out of works including excavation, upgrades to tanks, bunds, drainage and instrumentation, replacement of electrical substations, upgrades to the fire water system and revised pumping and piping works; and,
- **Operation** – The operation of the site as a bulk fuel storage facility.

The main objectives of the conversion project are:

- To improve the efficiency of the Clyde Terminal by upgrading existing facilities and structures; and,
- To improve environmental and safety performance of the Clyde Terminal while continuing to operate as a viable and efficient finished petroleum product receipt, storage and distribution terminal.

On 14 January 2015, the Planning Assessment Commission of NSW (as delegate of the Minister for Planning) granted Development Consent (SSD 5147) for the project subject to a number of conditions. The Clyde Terminal currently receives finished petroleum products from the Gore Bay Terminal. These products are distributed by pipeline from the Clyde Terminal to the adjacent Parramatta Terminal road gantry and to Sydney Airport. The Clyde Terminal site area, site access and receivers are shown in Figure 1 below.

The content of this Annual Review meets the requirements of SSD 5147 condition D4. Table 4 below lists the requirements and the corresponding sections where each specific requirement is addressed.

Table 1: Annual review reporting requirements

Condition D4 requirement	AEPR Section
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:	
(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;	Section 3
(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: <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; 	Section 4
(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	Sections 5
(d) identify any trends in the monitoring data over the life of the Development;	Section 4
(e) identify any discrepancies between the predicted and actual impacts of the Development, and analyse the potential cause of any significant discrepancies; and	Section 4
(f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the Development.	Section 10



Figure 1 – Clyde Terminal site area, site access and receivers

2 Approvals

Viva Energy (formerly The Shell Company of Australia Limited) holds two statutory approvals for Clyde Terminal, namely:

- SSD 5147, issued on 14 January 2015 by the Planning Assessment Commission of NSW (as delegate of the Minister for Planning) for the “Conversion of the existing Shell Clyde Refinery to a finished petroleum products import, storage and distribution terminal including demolition of the redundant infrastructure”.
- EPBC 2013/6878, issued on 17 April 2014 by the Department of Environment for the Shell Clyde Terminal Expansion “to undertake physical modifications at the existing Shell Clyde Terminal, Rosehill, NSW in accordance with the EPBC Act referral 2013/6878”. This approval has effect until 31 December 2064.

In addition, continued terminal operations are also subject to the conditions and requirements under the existing Environment Protection Licence (EPL) No. 570 under the Protection of Environment Operations Act 1997 (POEO Act).

During the reporting period, on 29 July 2019, the Industry Assessments Director (as delegate of the Minister for Planning and Public Spaces) approved a Modification of Development Consent (SSD 5147) to allow for one year extension on construction period; six additional assets to be demolished; the retention of two storage tanks initially nominated for demolition; and, general updates of the development consent.

3 Development activities

This Section describes the works undertaken in accordance with Development Consent SSD 5147 during the reporting period (1 January to 31 December 2019).

3.1 Works undertaken during this reporting period

3.1.1 Demolition works

Demolition phases 2 and 3 as described on the Modification of Development Consent were started at the end of the reporting period and executed during the first half of 2020. These works included the demolition of the following assets (refer to Figure 2):

- Tankfarms A2 and A3;
- Tankfarm C;
- State Office Building;
- MTS1 35kV switch yard;
- Tank T106;
- LPG spheres V137 and V140; and,
- LPG truck loading gantry

3.1.2 Construction works

During the reporting period, the Green and Golden Bell Frog (GGBF) habitat restoration works were executed. These works included the construction of a Wetland mosaic adjacent to the Clyde main wetland to provide for improved breeding habitat conditions of the GGBF. Refer to Figure 3 for Works as Executed plan

Demolition – Phase 1
Areas 1 – 20

Demolition – Phase 2
Areas 21 – 22
(following completion of
construction)

Demolition – Phase 3
MOD 3 Amendments

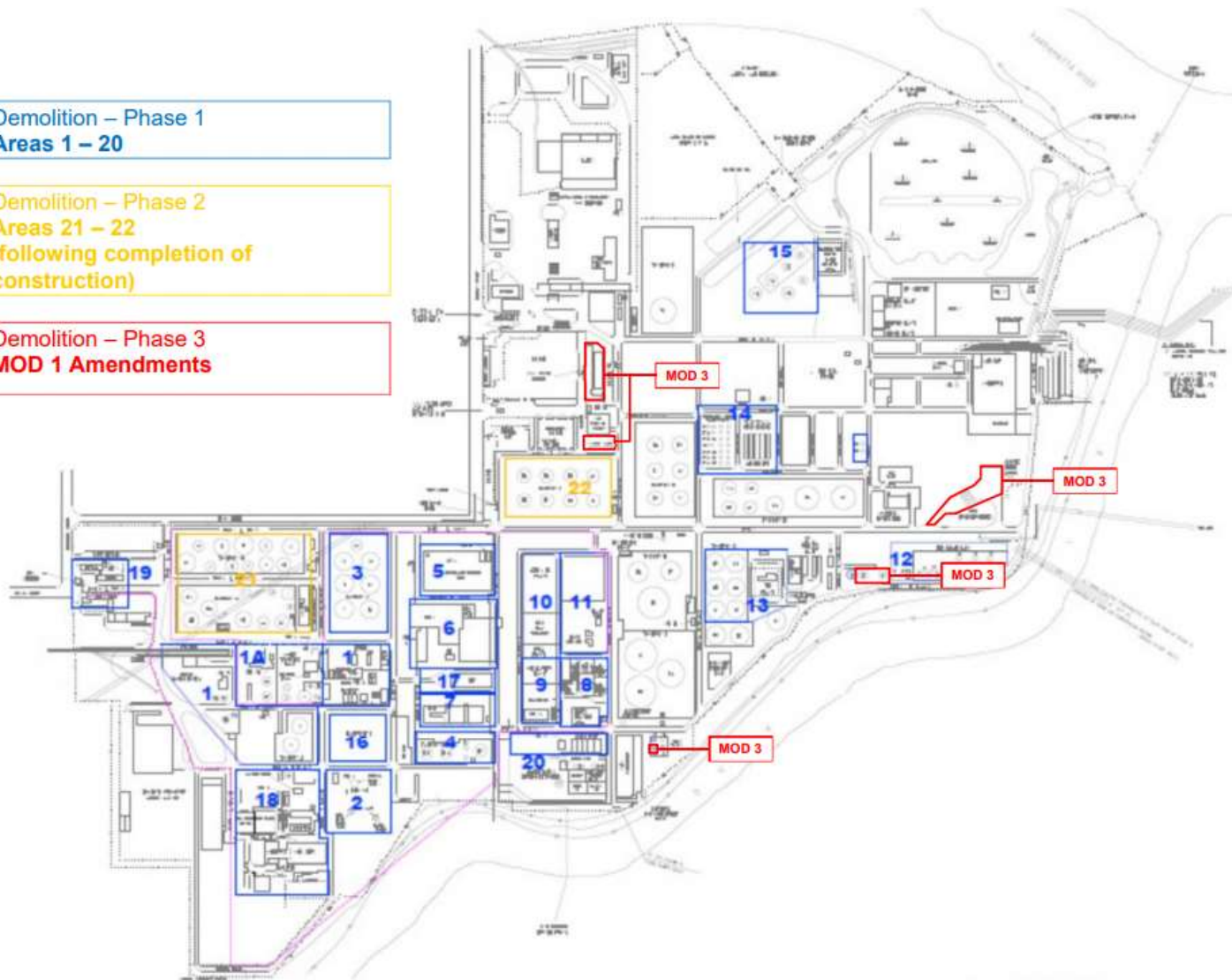


Figure 2 – Demolition works phasing

GREEN & GOLDEN BELL FROG BREEDING PONDS AND DISPERSAL CORRIDOR HABITAT RESTORATION PROJECT

CLYDE TERMINAL - VIVA ENERGY
September 2019



Figure 3 – Green and Golden Bell Frog Habitat Restoration – Works as Executed

3.1.3 Operations

Operations at Clyde Terminal continued 24 hours, Monday to Sunday, during this reporting period in accordance with condition C22 of the SSD 5147.

The Clyde Terminal continued receiving finished petroleum products from the Gore Bay pipeline and the Sydney Metropolitan pipeline. Products were stored in compliance with the limits prescribed in condition B5 of the SSD 5147 (refer to Table 2 below). Products were distributed by pipeline from the Clyde Terminal to the adjacent Parramatta Terminal road gantry and to Sydney Airport.

Table 2: Operations summary

Product	Approved limit	Previous reporting period (actual)	This reporting period (actual)	Next reporting period (forecast)
Finished petroleum products (ML)	264	252	211	220
Petroleum gases (m3)	1,550	0	0	0

3.2 Proposed works for the next reporting period

3.2.1 Demolition works

All demolition works approved by SSD-5147 and its Modification had been completed at the time of writing this report. There are not additional works proposed for next year.

3.2.2 Construction works

All construction works approved by SSD-5147 and its Modification had been completed at the time of writing this report. There are not additional works proposed for next year.

3.2.3 Operations

Operational activities during the next reporting period will be consistent with those described on section 3.1.3 above.

4 Environmental performance

4.1 Noise

During the reporting period, noise at Clyde was managed in accordance with the Construction and Demolition Noise Management Plan. This plan meets the requirements of condition C25 of the SSD 5147.

Demolition and construction works were undertaken within the approved hours under condition C22 of the SSD 5147. No noise complaints were received during this reporting period. Therefore, noise monitoring at the sensitive receivers was not triggered or required.

The above-described performance is consistent with results from previous years.

4.2 Air

During the reporting period, air emissions were managed in accordance with the Construction and Demolition Air Quality Management Plan. This plan meets the requirements of condition C31 of the SSD 5147. During the reporting period, visual observations were conducted weekly throughout various areas of construction works. Low and controlled levels of dust were observed. No air quality complaints were received during this or previous reporting periods.

Operational air emissions were managed in accordance with the Environmental Management Manual (EMM) and monitored following the approved Operational Air Quality Monitoring Program under condition C30 of the SSD 5147. Monitoring results for the reporting period are detailed below:

4.2.1 Dust

Visual monitoring for dust was undertaken during routine site activities. Low and controlled levels of dust were observed.

4.2.2 Odour

Low levels of odour were observed and recorded during regular site surveillance. Potential for odour generation during regular activities was also assessed during Job Start meetings and Barrier Thinking meetings. Potential for odour generation during non-routine activities were assessed and managed by Permit to Work. No offensive odours were identified in these assessments, consistent with results from the previous reporting period.

An annual emission survey of odours as required in the Operational Air Quality Monitoring Program was undertaken during the reporting period by a suitably qualified and independent consultant on the 30th September and 1st October 2019. A perimeter survey of the site was carried out during which the presence and, where possible, the character of odours was noted. The odour survey at the site boundary identified two likely on-site sources. However, the odour was considered localised and unlikely to be identified off-Site. Other industrial odours were identified at the site boundary, however, these odours were aligned with off-site industrial sources. On this basis, no additional mitigation measures were proposed in relation to managing odour at the site boundary. Odours were rated, from Not Perceptible to Extremely Strong, based on the German standard Olfactometry Determination of Odour Intensity (VDI 3882 Part 1). Results of the boundary odour survey are depicted on Figure 3 below with odour intensity ranging from not perceptible to weak over a number of discrete locations along the site perimeter.

Table 3 CTCP Boundary Odour Survey - 30 September 2019

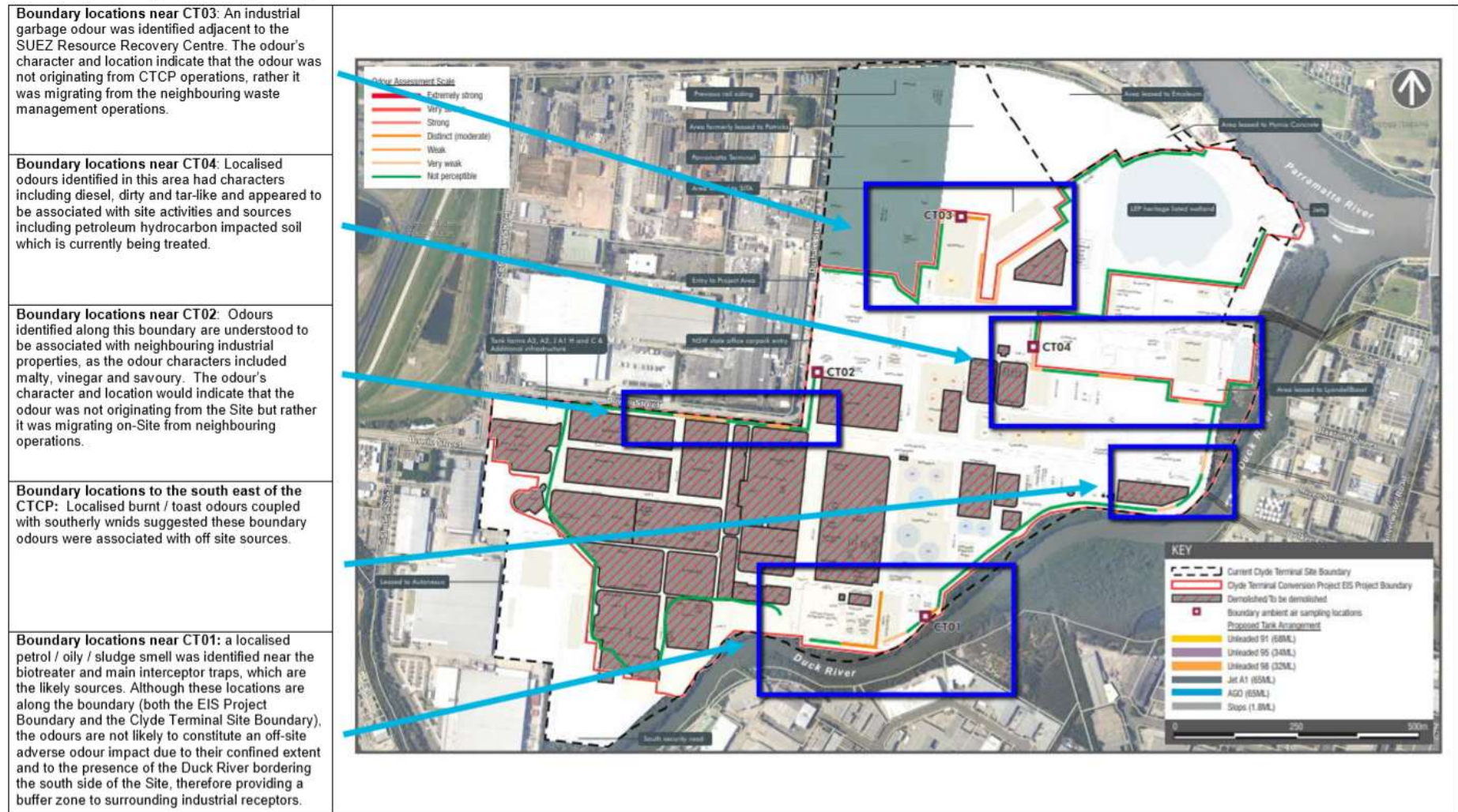


Table 4 CTCF Boundary Odour Survey - 1 October 2019

<p>Boundary locations to the north east of the CTCF: A localised odour with a character of air freshener and solvent was identified adjacent to the north east of the CTCF boundary. It is considered that the odour was associated with the adjacent concrete batching plant to the north of the Site.</p>	
<p>Boundary locations near CT03: As per the previous event, an industrial garbage odour was experienced adjacent to the SUEZ Resource Recovery Centre. The odour's character and location indicate that the odour was not originating from CTCF operations, rather it was migrating from the neighbouring waste management operations.</p>	
<p>Boundary locations near CT04: As per the previous event, localised odours identified in this area had characters including diesel, dirty and tar-like and appeared associated with site activities and sources including petroleum hydrocarbon impacted soil which is currently being treated.</p>	
<p>Boundary locations on eastern edge of property: Localised mangrove odours were intermittently identified at locations along the CTCF boundary with Duck River.</p>	
<p>Boundary locations near CT02: As per the previous event, odours identified along this boundary are understood to be associated with neighbouring industrial properties, as the odour characters include wet cardboard, musty and savoury. The odour's character and location would indicate that the odour was not originating from the Site but rather it was migrating on-Site from neighbouring operations.</p>	
<p>Boundary locations near CT01: As per the previous event, a localised petrol /oily / sludge smell was identified near the biotreater and main interceptor traps, which are the likely sources. Although these locations are along the boundary (both the EIS Project Boundary and the Clyde Terminal Site Boundary), the odours are not likely to constitute an off-site adverse odour impact due to their confined extent and to the presence of the Duck River bordering the south side of the Site, therefore providing a buffer zone to surrounding industrial receptors.</p>	

4.2.3 VOCs

The tank maintenance program included maintenance on floating covers and associated vapour sealing systems as part of scheduled off stream inspections to control VOC emissions for tank T84, gasoline storage.

Emissions from the storage tanks were estimated using the techniques in line with the National Pollutant Inventory (NPI) reporting process and submitted to both NPI and Annual Return required under EPL 570 for the period 02 July 2019 to 01 July 2020. The assessment of annual air emissions calculated 262kg of Benzene and 52,213kg of Volatile Organic Compounds (VOC's) were discharged to air, well below the EPL load limits of 26,000kg and 1,250,000kg, respectively. These results are below the previous reporting period results (benzene 22% lower and VOC's 27% lower), which is consistent with lower fuel storage for this reporting period as well as a reduction in throughput due to lower fuel demand in the first half of 2020 attributed to the effects of COVID-19 (refer to Table 2 above).

The annual emission survey described in the above section also included VOCs sampling and analysis. Four boundary locations were surveyed based on likely peak impact areas identified in the EIS and variability in wind conditions, as depicted on Figure 4 below. Boundary ambient air sampling was conducted at each location using stainless steel evacuated canisters and flow controllers. Samples were collected over a period of over 20 hours and canisters were subsequently analysed for CoPC following method US EPA TO-15.

Monitoring results are summarised below in Table 5 below with details presented on the Annual Air Quality Monitoring Survey report (Aecom, 2020). Measured concentrations for benzene and total VOCs were found to be consistent with levels predicted in the AQIA (AECOM, 2013). Results for all samples were below limit of reporting (LOR) for all CoPCs, with the exception of one detection of toluene results of 13 µg/m³. Based on 24-hour averaged measurements presented in NEPC (2019), Sydney urban air measurements of toluene at Rozelle and Turella averaged between 3.4 and 6.8 µg/m³ with peak values up to 24.1 µg/m³. Given three locations showed toluene levels to be lower than the analytical limit of reporting and the one detection being within historical values found in Sydney's urban areas, it is considered that the single detection of toluene is consistent with background ambient air levels.

When comparing to the assessment criteria adopted in the EIS, all measured VOCs resulted in levels well below the applicable criteria.

Table 5: Maximum 1-hour VOC Concentration (99.9th percentile)

Pollutant	Assessment criteria		Monitoring results
	NSW EPA criteria ¹	EIS prediction ²	Measured value
Benzene (µg/m ³)	29	0.35 – 0.60	<3 - <5
VOC, total (µg/m ³)	-	80 - 180	<100 - <155

¹ NSW EPA Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (DEC, 2005)

² Excludes background concentration



FIGURE 3

Figure 4: Boundary VOC sampling locations

4.3 Soil and water

Demolition and Construction soil and water environmental aspects are managed in accordance with the Soil and Water Management Plan. This plan meets the requirements of conditions C17, C20, C24 and C50 of the SSD 5147. During the reporting period, visual observations were conducted to ensure sediment-laden water was properly managed and not discharged off-site.

No groundwater or excavated soil testing was required during the reporting period.

In January 2018, as part of an emergency response to a jet fuel leak within Sydney Olympic Park (SOP), contaminated soils were transported from SOP to the Clyde Terminal between January and May 2018 and stored at the location known as the Sludge Dewatering Facility.

In discussions with the NSW EPA during 2018 and 2019, it was determined that the material could not be beneficially reused at the Clyde Terminal and was required to be disposed of at an appropriately licensed landfill facility.

The soils were removed from the Clyde Terminal on the 30 April and 1 May 2019 and transported to a licensed landfill facility. The total amount of soil disposed was 2,820.98 tonnes.

The soil and water management measures for Operations are detailed in the EMM. During this reporting period, monitoring and maintenance of drains was undertaken on a routine basis.

Monitoring of surface water discharge was conducted in accordance with the EPL requirements (refer to Appendix A.2). The biotreater effluent is the main discharge point, identified as EPA ID No.1 (Refer to Figure 4). This point was monitored monthly during the reporting period with pollutant concentrations well below the EPL limits as detailed in summary Table 6 below. Results are comparable to those presented in the previous reporting period with slightly increased levels of oil and grease and slightly decreased levels of TSS. The average daily discharge flow at this point was 894 kL/day, with a maximum daily discharge volume recorded of 2,729 kL. The EPL volume limit at this discharge point is 4,000 kL/day. Water was not discharged from the other approved discharge points (EPL ID No. 2, 4 or 30).

Table 6: Summary of monitoring results for the main discharge point at Clyde Terminal (EP ID No.1)

Pollutant	Concentration limits			Monitoring results		
	50 percentile	90 percentile	100 percentile	min	ave	max
BOD (mg/L)	45	95	n/a	<5	<5	<5
Fluoride (mg/L)	25	40	n/a	<0.1	1.04	1.6
Nitrogen (Ammonia)	6	30	n/a	<0.01	0.37	3.8
Oil and Grease (mg/L)	8	10	n/a	<5	<5	<5
ph			6.0-9.0	6.9	7.4	7.7
Phenols (mg/L)			0.5	<0.05	<0.05	<0.05
Total Nitrogen (mg/L)	35	100	n/a	1.0	4.2	8.3
Total Phosphorus (mg/L)	1.5	6	n/a	0.06	0.32	1.1
TSS (mg/L)	30	60	n/a	<5	7.2	16

Water discharge through approved flexible discharge points did not occur during the reporting period. Accordingly, no sampling was undertaken at these discharge points.

Overflow events were recorded for the East Interceptors Bays during March and September 2019 due to heavy rainfall.

Samples were taken daily during overflow conditions for the East Interceptors. Summary results for the overflow discharge at the East Interceptors are presented in Table 5 below.

Table 7: Summary of monitoring results for overflow discharge to water (EP ID No.28 and 29)

Pollutant	Concentration limits	Monitoring results					
	No concentration limits	EPA ID No.28			EPA ID No.29		
		min	ave	max	min	ave	max
pH	n/a	7.5	7.9	8.8	7.4	7.6	7.8
Total Organic Carbon (mg/L)	n/a	2.2	4.7	6.2	5.6	6.1	6.7
Total Suspended Solids (mg/L)	n/a	<5	12	31	10	13	19

4.4 Biodiversity

Construction biodiversity aspects are managed in accordance with the Biodiversity Management Plan. This plan meets the requirements of condition C58 of the SSD 5147. In addition, the EPBC 2013/6878 approval requires Viva Energy to undertake the modification works in full accordance with, and implement, the Plan of Management: Restoration of Green and Golden Bell Frog (GGBF) Habitat, Clyde, October 2013 and Conservation of Green and Golden Bell Frogs, Shell Site, Clyde, 2013 (the Plans).

On 02 April 2019, DoEE granted approval to the Revised Plan of Management: Restoration of Green and Golden Bell Frog Habitat, Clyde Terminal, January 2019. The alternate design included a wetland mosaic adjacent to the main wetlands to provide in particular for the breeding habitat that was qualified as lost in the approved Conservation of Green and Golden Bell Frogs, Shell Site, Clyde, 2013. The approved alternate design also aimed to preserve more of the existing wetland for the benefit of the balance of flora and fauna species in the area whilst meeting the breeding and sustainable habitat aims of the original PoM.

An Annual Compliance Report is required under approval condition 7 of the EPBC 2013/6878. The latest report covered the period 03 April 2019 to 14 April 2020 and is available on the Viva Energy website (<https://www.vivaenergy.com.au/about-us/terminals-shipping/clyde/conversion-project>).

In addition to the compliance status against each of the EPBC 2013/6878 conditions, the Annual Compliance Report also describes the progress on the Plans implementation. During the reporting period, the proposed wetland mosaic and dispersal corridor were constructed. Also, a frog-proof fence was installed along the wetland mosaic and main wetland to help contain the Green and Golden Bell Frog within their improved habitat and exclude them from construction and operational areas. Please refer to Figure 3 for the Works as Executed plan showing the frog fence detail.

Wetland maintenance activities have continued throughout the reporting period.

4.5 Waste

Demolition and construction wastes are managed in accordance with the Waste and Resource Recovery Management Plan. This plan meets the requirements of condition C57 of the SSD 5147. The EMM lists the relevant waste management measures for Operations.

During the reporting period, construction and operation activities at Clyde Terminal generated approximately 1,251.81 tonnes of solid and liquid wastes, which was a decrease from the previous year's result of 3,113.48 tonnes, mainly related to the completion of construction activities. Approximately, 17% of this waste was temporarily stored on site, 54% was subject to chemical or physical treatment prior disposal, 13% was recycled and 16% was sent off to landfill.

No asbestos were generated during the reporting period.

5 Incidents and non-compliances during the reporting period

No reportable incidents occurred during the reporting period.

A non-compliance with EPL570 condition M2.1 was reported to the NSW EPA. This involved an error in the chain of custody process, which resulted in the monthly sample for the Biotreater discharge (EPA Sample Point No.1) taken on 7 February 2019 not being analysed by the Laboratory. A monthly work order was then put in place to check and file sample results every month to ensure this circumstance doesn't occur again.

6 Actions required from previous Annual Review

The Clyde Terminal environmental performance for the reporting period has been in line with the statutory requirements and limits and generally in accordance with the EIS predictions, as described in Section 4 below.

In the previous annual review, the implementation of the measures proposed in the Revised Plan of Management: Restoration of Green and Golden Bell Frog Habitat, Clyde Terminal, January 2019 was identified as part of the Improvement Plan. This Plan was successfully implemented during the reporting period. Refer to Section 4.4 above.

7 Measures to improve the environmental performance

During the current calendar year the following measures have been or will be implemented:

- Ongoing tank maintenance program included maintenance on floating covers and associated vapour sealing systems for gasoline storage, resulting in reduced VOC emissions;
- Further consolidation of the terminal operations with the demolition of the Western tankfarm area, resulting in reduced energy consumption;
- Drainage cleaning in the surplus Western area of the site to address historic subgrade drainage contamination and reduce environmental risks for further land use; and,
- Remediation works of a portion of the surplus Western area in accordance with a separate development consent (SSD 9302). The environmental performance of these works will be reported separately.

Appendix A

- A.1 Annual Environmental Performance Review (1 January to 31 December 2018) approval letter
- A.2 Surface water discharge monitoring results

A.1 Annual Environmental Performance Review (1 January to 31 December 2018) approval letter



Contact: Laura Papoulias
Phone: 02 8289 6879
Email: compliance@planning.nsw.gov.au

Ms Erica Salazar
Viva Energy Australia Pty Ltd
GPO Box 872,
MELBOURNE VIC 3001

14 November 2019

Email: Erica.Salazar@vivaenergy.com.au

Shell Clyde Refinery Conversion (SSD 5147) Annual Review 2018

Dear Erica,

I refer to the 2018 Annual Review (**Report**), submitted to the Department of Planning, Industry and Environment (**Department**) on 31 July 2019 as required under Schedule D, Condition D4 of Development Consent SSD 5147.

The Department has reviewed the **Report** and considers it to generally satisfy the requirements of Schedule D, Condition D4. Please note that this is not an endorsement of the compliance status of the project.

Should you need to discuss the above, please contact Laura Papoulias on 02 8289 6879 or email compliance@planning.nsw.gov.au.

Yours sincerely,

Chris Mathieson
Team Leader – Compliance (Metro)

A.2 Surface water discharge monitoring results

EPA ID No.1 – Biotreater Effluent													
Pollutant	Biochemical Oxygen Demand (BOD)	Fluoride	Nitrogen (Ammonia)	Oil and Grease	pH	Phenols	Total Nitrogen	Total Petroleum Hydrocarbons				Total Phosphorus	Total Suspended Solids
Licence Limit	45/95 (50%/90%)	25/40 (50%/90%)	6/30 (50%/90%)	8/10 (50%/90%)	6-9	0.5	35/100 (50%/90%)	C6-C9	C10-C14	C15-C28	C29-C36	1.5/6 (50%/90%)	30/60 (50%/90%)
Units of Measure	mg/L	mg/L	mg/L	mg/L	units	mg/L	mg/L	ug/L				mg/L	mg/L
Freq. as per EPL	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly				Monthly	Monthly
3/01/2019	<5	1	<0.01	<5	7.4	<0.05	2.5	0.28	<0.05	<0.2	<0.2	0.18	<5
7/02/2019	Sample taken though not analysed due to an error in the chain of custody process												
7/03/2019	<5	1.4	0.02	<5	6.9	<0.05	3.3	0.21	<0.05	<0.2	<0.2	0.16	<5
4/04/2019	<5	0.85	<0.01	<5	7.6	<0.05	1.5	<0.04	<0.05	<0.2	<0.2	0.13	<5
2/05/2019	<5	1	0.01	<5	7.2	<0.05	4.8	<0.2	<0.2	<0.2	<0.2	0.06	<5
6/06/2019	<5	1.3	0.03	<5	7.1	<0.05	4	<0.04	<0.05	<0.2	<0.2	0.3	11
4/07/2019	<5	0.99	0.02	<5	7.3	<0.05	1	<0.04	<0.05	<0.2	<0.2	0.14	<5
1/08/2019	<5	1.5	0.03	<5	7.3	<0.05	8.3	<0.2	<0.05	<0.2	<0.2	0.26	8
5/09/2019	<5	0.83	0.04	<5	7.6	<0.05	2.8	<0.2	<0.05	<0.2	<0.2	0.35	16
3/10/2019	<5	<0.1	3.8	<5	7.6	<0.05	8.2	<0.2	<0.05	<0.2	<0.2	0.61	15
7/11/2019	<5	0.96	0.02	<5	7.7	<0.05	2	<0.04	<0.05	<0.2	<0.2	1.1	5
5/12/2019	<5	1.6	0.11	<5	7.4	<0.05	7.6	<0.2	<0.05	<0.2	<0.2	0.23	12

EPA ID No.2 – Main Interceptor Pumpout

Pollutant	pH	Phenols	Total Organic Carbon	Total Suspended Solids
Licence Limit	6.0-9.0	0.5	100	50
Units of Measure	units	mg/L	mg/L	mg/L
Frequency as per EPL	Daily when discharging	Daily when discharging	Daily when discharging	Daily when discharging
January 2019	No discharge			
February 2019	No discharge			
March 2019	No discharge			
April 2019	No discharge			
May 2019	No discharge			
June 2019	No discharge			
July 2019	No discharge			
August 2019	No discharge			
September 2019	No discharge			
October 2019	No discharge			
November 2019	No discharge			
December 2019	No discharge			

EPA ID No. 4 - B2 System Pump out

Pollutant	pH	Phenols	Total Organic Carbon	Total Suspended Solids	Total Petroleum Hydrocarbons
Licence Limit	6.0-9.0	0.5	100	50	n/a
Units of Measure	units	mg/L	mg/L	mg/L	µg/L
Frequency as per EPL	Daily when discharging	Daily when discharging	Daily when discharging	Daily when discharging	Daily when discharging
January 2019	No discharge				
February 2019	No discharge				
March 2019	No discharge				
April 2019	No discharge				
May 2019	No discharge				
June 2019	No discharge				
July 2019	No discharge				
August 2019	No discharge				
September 2019	No discharge				
October 2019	No discharge				
November 2019	No discharge				
December 2019	No discharge				

EPA ID No.25 – Flexible discharge outlet

Pollutant	pH	Total Organic Carbon	Total Suspended Solids
Licence Limit	6.0-9.0	100	50
Units of Measure	units	mg/L	mg/L
Frequency as per EPL	<5 days prior to discharge	<5 days prior to discharge	<5 days prior to discharge
January 2019	No discharge		
February 2019	No discharge		
March 2019	No discharge		
April 2019	No discharge		
May 2019	No discharge		
June 2019	No discharge		
July 2019	No discharge		
August 2019	No discharge		
September 2019	No discharge		
October 2019	No discharge		
November 2019	No discharge		
December 2019	No discharge		

EPA ID No. 26 - B2 System Monitoring Point							
Pollutant	pH	Phenols	Total Organic Carbon	Total Suspended Solids	Total Petroleum Hydrocarbons		
					C6-C9	C10-C14	C15-C28
Units of Measure	pH	mg/L	mg/L	mg/L	ug/L		
Freq. as per EPL	Daily when discharging	Daily when discharging	Daily when discharging	Daily when discharging	Daily when discharging		
January 2019				No discharge			
February 2019				No discharge			
March 2019				No discharge			
April 2019				No discharge			
May 2019				No discharge			
June 2019				No discharge			
July 2019				No discharge			
August 2019				No discharge			
September 2019				No discharge			
October 2019				No discharge			
November 2019				No discharge			
December 2019				No discharge			

EPA ID No. 28 – East Interceptor Bay 1&2 overflow			
Pollutant	pH	Total Organic Carbon	Total Suspended Solids
Licence Limit	n/a	n/a	n/a
Units of Measure	units	mg/L	mg/L
Frequency	Each overflow event	Each overflow event	Each overflow event
January 2019	No discharge		
February 2019	No discharge		
17/03/2019	8.8	3.7	10
18/03/2019	7.8	5.5	8
19/03/2019	7.5	5.9	8
20/03/2019	7.8	6.2	31
April 2019	No discharge		
May 2019	No discharge		
June 2019	No discharge		
July 2019	No discharge		
August 2019	No discharge		
19/09/2019	7.6	2.2	<5
October 2019	No discharge		
November 2019	No discharge		
December 2019	No discharge		

EPA ID No. 29 – East Interceptor Bay 3&4 overflow

Pollutant	pH	Total Organic Carbon	Total Suspended Solids
Licence Limit	n/a	n/a	n/a
Units of Measure	units	mg/L	mg/L
Frequency as per EPL	Each overflow event	Each overflow event	Each overflow event
January 2019	No discharge		
February 2019	No discharge		
17/03/2019	7.8	6.2	19
18/03/2019	7.6	5.6	11
19/03/2019	7.6	5.8	10
20/03/2019	7.8	6.1	10
April 2019	No discharge		
May 2019	No discharge		
June 2019	No discharge		
July 2019	No discharge		
August 2019	No discharge		
19/09/2019	7.4	6.7	13
October 2019	No discharge		
November 2019	No discharge		
December 2019	No discharge		

EPA ID No.30 – East Interceptor Pump-out

Pollutant	pH	Oil and Grease	Total Organic Carbon	Total Suspended Solids
Licence Limit	6.0-9.0	10	100	50
Units of Measure	units	mg/L	mg/L	mg/L
Frequency as per EPL	Daily when discharging	Daily when discharging	Daily when discharging	Daily when discharging
January 2019	No discharge			
February 2019	No discharge			
March 2019	No discharge			
April 2019	No discharge			
May 2019	No discharge			
June 2019	No discharge			
July 2019	No discharge			
August 2019	No discharge			
September 2019	No discharge			
October 2019	No discharge			
November 2019	No discharge			
December 2019	No discharge			

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