

***Cleanaway Refiners Rutherford Annual Environmental Report 2018***

***Date:*** February 2019  
***Prepared by:*** Bart Downe  
***Version:*** 2  
***Approved by:*** Orhan Cambaz and Scott McLeod

## Contents


1	Title Block.....	3
2	Statement of Compliance.....	3
3	Introduction.....	4
4	Approvals.....	7
5	Operations summary.....	7
6	Actions required from previous Annual Review.....	7
7	Results of Environmental Monitoring.....	7
7.1	Meteorology.....	8
7.2	Air quality.....	8
7.2.1	Monitoring results from the reporting period.....	9
7.2.2	Trends.....	12
7.2.3	Comparison of emissions to predictions in the EA.....	12
7.2.4	Management implications.....	12
7.3	Groundwater contamination.....	13
7.3.1	Monitoring results from the reporting period.....	13
7.3.2	Trends.....	14
7.3.3	Management implications.....	15
8	Community.....	15
8.1	Website.....	15
8.2	Environmental complaints.....	15
9	Independent audit.....	15
10	Non-compliances during the reporting period.....	15
11	Proposed activities during the next reporting period.....	15
	Appendix A: Conditions relevant to operation phase.....	17
	Appendix B: Conditions previously reported, which relate to construction or pre operational issues.....	32
	Appendix C: Trend graphs discharge points 19 and 5.....	41

## 1 Title Block

**TABLE 1: ANNUAL REVIEW TITLE BLOCK**

<b>Name of operation</b>	Resource Recovery and Recycling Facility, 11 Kyle Street, Rutherford NSW
<b>Name of operator</b>	Cleanaway Refiners
<b>Development consent</b>	05_0037
<b>Name of holder of development consent</b>	Cleanaway Pty Ltd
<b>Annual Review start date</b>	29 September 2017
<b>Annual review end date</b>	28 September 2018

I Scott McLeod, certify that this audit report is a true and accurate record of the compliance status of Resource Recovery and Recycling Facility for the 2018 reporting period and that I am authorised to make this statement on behalf of Cleanaway.

<b>Name of authorised reporting officer</b>	Scott McLeod
<b>Title of authorised reporting officer</b>	Regional Manager - Refineries
<b>Signature of authorised reporting officer</b>	
<b>Date</b>	4 December 2018

## 2 Statement of Compliance

This section details compliance with the conditions of approval and any other licence and approvals for the project.

**TABLE 2: STATEMENT OF COMPLIANCE**

Were all conditions of the relevant approval conditions complied with?	
Development consent 05_0037	Yes
Environmental Protection Licence (EPL) 12555	No

No non-compliances associated with Development Consent 05-037 were reported during the reporting period. One non-compliance with the EPL12555 was reported (refer Table 3).

**TABLE 3: STATEMENT OF COMPLIANCE**

Relevant approval	Condition #	Condition description (summary)	Compliance status	Comment	Where addressed in Annual Review
EPL	Section 66(6) of POEO Act 1997	Monitoring data	Non-compliant	A letter of warning was received for the monitoring period 2016/17. Monitoring data had not been uploaded to the Cleanaway website.	Section 10

Compliance tables relating to the current operation phase of the project are provided in Appendix A.

Compliance tables relevant to previous phases of the project (construction and pre operations), and are considered completed can be found in Appendix B for reference.

### 3 Introduction

Cleanaway Refiners operates an oil refinery at 11 Kyle Street, Rutherford, New South Wales. The refinery processes up to 40,000 tonnes per annum (tpa) of waste oil. This waste oil is refined via hydrogenation into base oil for use in lube oil blending and industrial processes (Refer Figure 1 and Figure 2).

The refinery has been operating since May 2007. During this time Cleanaway Refiners has been progressively improving operations to ensure best practice.

Operation of the refinery is subject to the conditions of the Project Approval (05\_0037), as modified, and Environmental Protection Licence 12555.

This Annual Environmental Management Report (AEMR) has been prepared for the 12 month reporting period of 29 September 2017 to 28 September 2018 (herein referred to as the reporting period).

This Annual Review has been prepared in accordance with the following:

- \* Schedule 2, Condition 5.2 of Project Approval (05\_0037);
- \* NSW Government Guideline, Annual Review Guideline (October, 2015); and
- \* Environmental Protection Licence 12555.

Copies of this AEMR will be provided to the New South Wales Environmental Protection Authority (NSW EPA), Maitland Council and the Department of Planning and Environment. A copy of the AEMR will also be placed on the Cleanaway Public Web Site: <http://www.Cleanaway.com.au>

Note on 1st February 2016 Transpacific Refiners changed its name to Cleanaway Refiners.

**FIGURE 1: REGIONAL CONTEXT**

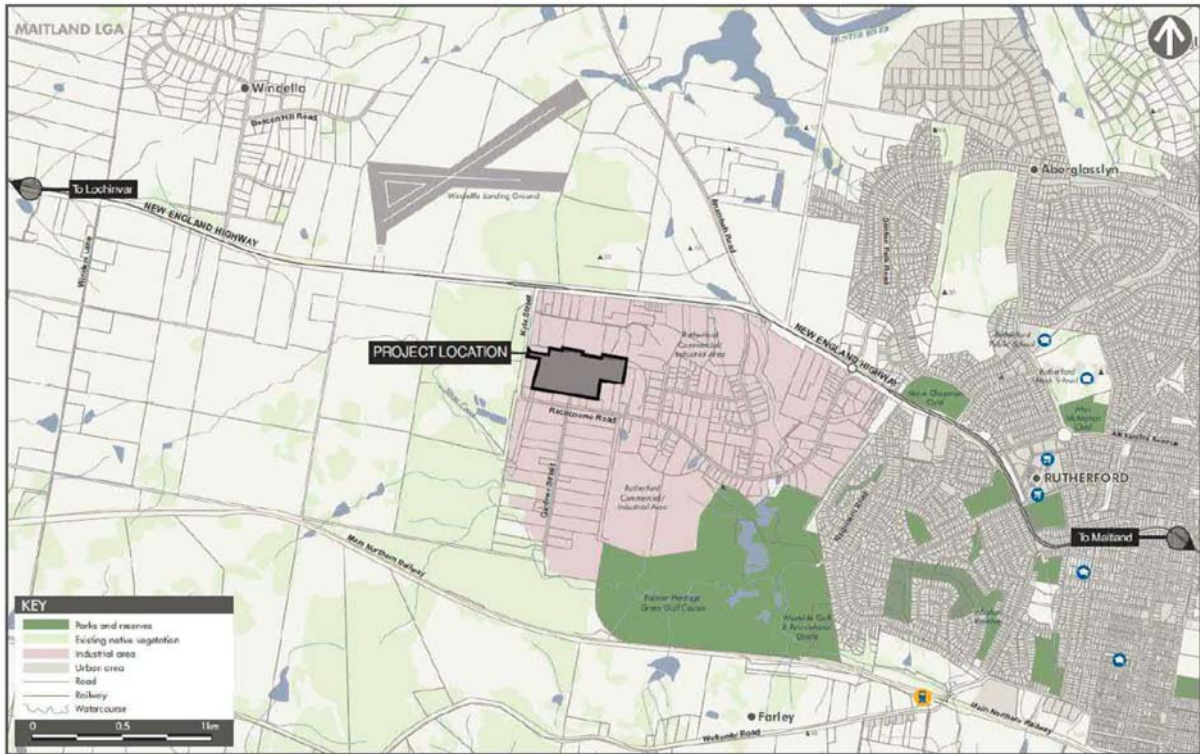




FIGURE 2: RUTHERFORD REFINERY SITE LAYOUT



## 4 Approvals

Operations at Rutherford are regulated by Project Approval (05\_0037) and Environmental Protection Licence (EPL) 12555, which are summarised below.

### Project Approval: 05\_0037

Five modifications to PA05\_0037 have been approved to date.

No changes or modifications to PA05\_0037 occurred during this reporting period.

### Environmental Protection Licence (EPL) 12555

Cleanaway Refiners operates Rutherford hydrogenation plant under Environment Protection Licence (EPL) 12555, with an anniversary date of 29 September. Monitoring results are reported to the EPA as part of the Rutherford EPL Annual Return and monitoring data is available on the Cleanaway website.

No variations to EPL12555 occurred during this reporting period.

## 5 Operations summary

A summary of production from the hydrogenation plant and a comparison against the approval limit is provided in Table 4 below.

**TABLE 4: PRODUCTION SUMMARY**

Material	Approved limit (tpa)	Previous reporting period (tpa)	This reporting period (tpa)	Next reporting period (forecast) (tpa)
Product: waste lubricant oils	40,000	24,536	25,759.208	28,000

### Next reporting period

No significant changes to the plant or production are anticipated during the next reporting period.

## 6 Actions required from previous Annual Review

A summary of the actions required as an outcome of the previous Annual Review are provided in Table 5.

**TABLE 5: ACTIONS FROM THE PREVIOUS ANNUAL REVIEW**

Actions required from previous Annual Review	Requested by	Action taken by the operator	Where discussed in the Annual Review
Include the following: <ul style="list-style-type: none"> <li>maps showing regional context and the project approval boundary</li> </ul>	Department of Planning and Environment	The AEMR document has been updated	Section 3

Actions required from previous Annual Review	Requested by	Action taken by the operator	Where discussed in the Annual Review
<ul style="list-style-type: none"> <li>provide the date of groundwater monitoring and include current and previous years data in graphs to show trends</li> </ul>			Section 7.2

## 7 Results of Environmental Monitoring

### 7.1 Meteorology

In accordance with Schedule 3, Condition 2.6 of PA 05\_0037, and Condition P1.1 of EPL 12555, Cleanaway continued to operate the meteorological station during the reporting period. The meteorological station is located on the rooftop close to the southwest corner of the control room.

### 7.2 Air quality

Cleanaway operates in accordance with the EPL12555 and an approved Air Quality Management Plan. Whilst the AQMP is not available on the Cleanaway website, a summary of the AQMP is provided within the OEMP. The AQMP describes air quality management and monitoring requirements associated with the hydrogenation plant.

Air quality monitoring locations, pollutant criteria and concentration limits are presented in Table 6.

**TABLE 6: EPL12555 AIR QUALITY MONITORING LOCATIONS AND CRITERIA**

EPA reference	Location	Pollutant	Concentration limit (mg/m <sup>3</sup> )
2	3.0MW boiler stack	VOC	10
		Nitrogen oxides	350
		Solid particles	10
3	0.2MW boiler stack	VOC	10
		Nitrogen oxides	350
		Solid particles	10
5	Light ends scrubber	VOC	20
19	Fired heaters stack	Solid particles	50
		Hydrogen sulfide	5
		VOC	10
		Nitrogen oxides	350
		Sulfuric acid mist and sulfur trioxide (as SO <sub>3</sub> )	100
		Sulphur dioxide	1360



EPA reference	Location	Pollutant	Concentration limit (mg/m <sup>3</sup> )
20	Hydrogen reformer	VOC	10
		Nitrogen oxides	350
		Solid particles	10

Annual load limits prescribed in EPL 12555 are presented in Table 7.

**TABLE 7: ANNUAL LOAD LIMITS**

Assessable pollutant	Load limit (kg)
Arsenic (air)	N/A
Benzene (air)	26
Benzo(a)pyrene (air)	4.6
Fine particulates	136
Hydrogen sulphide (air)	64
Lead (air)	N/A
Mercury (air)	N/A
Nitrogen Oxides (air)	10,000
Sulfur Oxides (air)	46,000
Volatile organic compounds (air)	850

### 7.2.1 Monitoring results from the reporting period

Air quality data collected from each monitoring location during the reporting period is summarised below. Testing was undertaken between 27-30 November 2017.

Results for all pollutants were significantly below prescribed concentration limits.

**TABLE 8: DISCHARGE POINT 2: 3MW BOILER**

Pollutant	Unit of measure	Mean of sample	Limit Conditions
Temperature	°C	185	na
Nitrogen oxides at 8%O <sub>2</sub>	mg/m <sup>3</sup>	81.6	350
Volatile organic compounds (n-propane) at 8%O <sub>2</sub>	mg/m <sup>3</sup>	1.28	10
Oxygen	%	6.79	na

Pollutant	Unit of measure	Mean of sample	Limit Conditions
Velocity	m/s	2.79	na
Dry gas density	kg/m <sup>3</sup>	1.32	na
Molecular weight of stack gases	g/g-mol	29.6	na
Volumetric flowrate	m <sup>3</sup> /s	0.486	na
Moisture	%	12.0	na
Solid particles	mg/m <sup>3</sup>	8.90	10

**TABLE 9: DISCHARGE POINT 3: 0.2MW BOILER**

Pollutant	Unit of measure	Mean of sample	Limit Conditions
Temperature	°C	213	na
Nitrogen oxides at 8%O <sub>2</sub>	mg/m <sup>3</sup>	95.7	350
Volatile organic compounds (n-propane) at 8%O <sub>2</sub>	mg/m <sup>3</sup>	1.31	10
Oxygen	%	7.23	na
Velocity	m/s	9.66	na
Dry gas density	kg/m <sup>3</sup>	1.32	na
Molecular weight of stack gases	g/g-mol	29.5	na
Volumetric flowrate	m <sup>3</sup> /s	0.152	na
Moisture	%	11.0	na
Solid particles	mg/m <sup>3</sup>	3.13	10

**TABLE 10: DISCHARGE POINT 5: LIGHT END SCRUBBER**

Pollutant	Unit of measure	Mean of sample	Limit Conditions
Temperature	°C	36.2	na
Volatile organic compounds as propane at 8% O <sub>2</sub>	mg/m <sup>3</sup>	<1.45	20
PAHs	mg/m <sup>3</sup>	1.76e+24	na
Volumetric flowrate	m <sup>3</sup> /s	0.0737	na
Moisture	%	4.49	na
Odour	OU	2070	na

**TABLE 11: DISCHARGE POINT 19: FIRED HEATER**

Pollutant	Unit of measure	Mean of sample	Limit Conditions
Temperature	°C	114	na
Nitrogen Oxides at 8% O2	mg/m <sup>3</sup>	343	350
Volatile organic compounds as propane at 8% O2	mg/m <sup>3</sup>	1.61	10
Hydrogen sulphide at 8% O2	mg/m <sup>3</sup>	0.0616	5
Oxygen	%	10.1	na
Velocity	m/s	2.61	na
Dry gas density	kg/m <sup>3</sup>	1.31	na
H2SO4 and SO3 (as SO3 equivalent) at 8% O2	mg/m <sup>3</sup>	16.7	100
Odour	OU	3680	na
Molecular weight of stack gases	g/g-mol	29.3	na
Volumetric flowrate	m <sup>3</sup> /s	0.438	na
Moisture	%	15.8	na
Solid particles at 8%O2	mg/m <sup>3</sup>	3.06	50
Sulphur dioxide at 8%O2	mg/m <sup>3</sup>	44.3	1360
Formaldehyde at 8%O2	mg/m <sup>3</sup>	0.902	na

**TABLE 12: DISCHARGE POINT 20: REFORMER**

Pollutant	Unit of measure	Mean of sample	Limit Conditions
Temperature	°C	720	na
Nitrogen Oxides at 4% O2	mg/m <sup>3</sup>	109	350
Volatile organic compounds as propane at 4% O2	mg/m <sup>3</sup>	1.47	10
Hydrogen sulphide at 4% O2	mg/m <sup>3</sup>	0.0403	5
Oxygen	%	4.8	na
Velocity	m/s	12.6	na
Dry gas density	kg/m <sup>3</sup>	1.35	na
Odour	OU	4116	na
Molecular weight of stack gases	g/g-mol	30.3	na

Volumetric flowrate	m <sup>3</sup> /s	0.259	na
Moisture	%	19.5	na
Solid particles at 4% O2	mg/m <sup>3</sup>	6.19	50

Annual assessable loads during the reporting period are provided in Table 12. Results for all assessable pollutants were significantly below load limits.

**TABLE 13: ANNUAL ASSESSABLE LOADS DURING THE REPORTING PERIOD**

Assessable pollutant	Load limit (kg)	Assessable load (kg)
Arsenic (air)	N/A	0.247
Benzene (air)	26	1.595
Benzo(a)pyrene (air)	4.6	0.107
Fine particulates	1,360	118.803
Hydrogen sulphide (air)	64	1.483
Lead (air)	N/A	0.319
Mercury (air)	N/A	0.012
Nitrogen Oxides (air)	10,000	5418.48
Sulfur Oxides (air)	46,000	608.96
Volatile organic compounds (air)	850	39.957

## 7.2.2 Trends

Emission monitoring testing indicates significant improvement in all parameters; since commissioning, continuous improvements in key areas have allowed the refinery to comply with all emission limits.

Graphical representations for emissions from Discharge Points 5 and 19 are provided at Appendix C.

## 7.2.3 Comparison of emissions to predictions in the EA

Based on actual emission results conducted in accordance with the EPL and dispersion modelling, no adverse environmental impacts are expected beyond the site boundary.

All model predictions show that the Cleanaway Refiners operations comply with EPA impact assessment criteria for all air emissions considered in this study.

## 7.2.4 Management implications

Cleanaway Refiners will continue to implement the approved AQMP.

### 7.3 Groundwater contamination

Cleanaway operates in accordance with the EPL12555 and an approved Groundwater Management Plan (GMP). Whilst the GMP is not available on the Cleanaway website, a summary of the GMP is provided within the OEMP. The GMP describes water quality management and monitoring requirements associated with the hydrogenation plant.

Groundwater monitoring locations, monitoring frequency and pollutants are presented in Table 13.

**TABLE 14: EPL12555 GROUNDWATER QUALITY MONITORING LOCATIONS AND POLLUTANTS**

EPA monitoring point	Location	Pollutants	Units	Frequency
6	Bore MW21	Tetrachloroethene (tetrachloroethylene) Total petroleum hydrocarbons (TPH) C10-C36 Fraction Total petroleum hydrocarbons (TPH) C6-C9 Fraction	µg/l	Yearly
10	Bore MW12			
22	Bore MW15			
23	Bore MW19			
NA	Bore MW18*			
NA	Bore MW17*			
NA	Bore MW20*			

Note:

\*Bores MW18, 17 and 20 have been removed from EPL12555, but are reported on in this AEMR for completeness. This will be the last AEMR showing results from these bores.

#### 7.3.1 Monitoring results from the reporting period

Groundwater quality data collected from each monitoring location during the reporting period is summarised in Table 14.



TABLE 15: GROUNDWATER QUALITY RESULTS

Sample ID			MW12	MW15	MW17*	MW18*	MW19	MW20*	MW21	
Date			30/11/17	30/11/17	13/12/17	13/12/17	30/11/17	13/12/17	30/11/17	
Sampled by			AMG	AMG	RCA	RCA	AMG	RCA	AMG	
Parameter / pollutant	Units	Assessment criteria								
Temperature	oC	-	26.2	22.9	21	30.2	21.7	22.4	Dry	
Dissolved oxygen	mg/l		2.72	7.33	-	-	1.88	-		
pH	pH		6.35	6.74	7	7.02	6.51	7.18		
Oxidation-reduction potential	mV		-	-	-50.1	18.2	-	91.4		
Specific conductance	µs/cm		12 600	7905	7960	8030	5950	7610		
Tetrachloroethene	µg/l		50 <sup>1</sup>	<1	<1	39	12	<1		<1
TPH C6-C9	µg/l		600 <sup>2</sup>	<10	<10	140	24	<10		<10
TPH C10-C36	µg/l		-	<100	<100	<200	<200	<100		<200

## Notes:

1. Recreation criteria in Guidelines for Managing Risks in Recreational Waters (NHMRC 2008); Stock watering criteria in National Water Quality Management Strategy (ANZECC 2000); and Drinking water criteria in Australian Drinking Water Guidelines 6 (NHMRC 2013).
  2. Aquatic systems criteria in Dutch 2000 Groundwater Intervention Value.
- \* Bores MW18, 17 and 20 have been removed from EPL12555, but are reported on in this AEMR for completeness. This will be the last AEMR showing results from these bores

TRH

Concentrations of TRH C6-C9 fraction were reported above the laboratory limit of reporting (LOR) in groundwater extracted from two of the monitoring wells sampled. Concentrations of TRH C6-C9 fraction, although above the LOR were below the adopted groundwater assessment criteria (600µg/l) in all wells.

Tetrachloroethene

Concentrations of Tetrachloroethene were reported above the LOR in groundwater extracted from two of the monitoring wells sampled. Concentrations of Tetrachloroethene, although above the LOR were below the adopted groundwater assessment criteria (50 µg/l) in all wells.

**7.3.2 Trends**

Concentrations of semi-volatile TPH (and TRH) fractions have remained below the laboratory LOR in each of the groundwater monitoring wells sampled.

TPH C6-C9 concentrations have decreased significantly in monitoring wells MW17 and MW18. TPH C6C9 concentrations remained below the laboratory LOR in MW20.

Groundwater monitoring undertaken to date indicates that:

1. There is only minor contamination of the groundwater, which is localised around the original point of contamination, namely the former dye and finishing warehouse located in the centre of the property, and not Cleanaway activities.
2. This contamination poses little risk to the environment.

### 7.3.3 Management implications

On-going implementation of the GMP by Cleanaway Refiners, which will identify any potential off-site migration well, enabling appropriate remedial action to be taken to mitigate any such event.

## 8 Community

### 8.1 Website

Cleanaway operates a website ([www.cleanaway.com.au](http://www.cleanaway.com.au)) where members of the community can access information about the site, including the latest reports, management plans and environmental monitoring data, including previous Annual Reviews.

### 8.2 Environmental complaints

Cleanaway manages complaints in accordance with a compliant procedure and maintains a complaints database.

No complaints were received for the site during the reporting period.

## 9 Independent audit

In accordance with Condition 4.4, Schedule 2 of PA 05\_0037 an independent audit was undertaken during the reporting period. At the time of writing this AEMR the audit action plan is in preparation and has not been submitted to the Department. Implementation of actions required by the plan will be reported in the 2019 AEMR.

## 10 Non-compliances during the reporting period

As outlined in Section 2, on 21 May 2018 Cleanaway received a Letter of Warning from NSW EPA regarding the implementation of EPL12555. Section 66(6) of the POEO Act requires that monitoring data pertaining to an environmental licence is made publicly available on the licensee's website. Groundwater monitoring data for the 2016-2017 annual return had not been posted onto Cleanaway's website. To prevent a recurrence the Environment Team will verify with site operations that environmental monitoring data has been uploaded to the website.

## 11 Proposed activities during the next reporting period

In accordance with Schedule 2, Condition 3.7 of PA05\_0037 the following strategies, plans and programs will be reviewed and/or revised in 2019 as necessary:

- Operation Environmental Management Plan, including:

- Air Quality Management Plan; and
- Groundwater Management Plan.

## Appendix A: Conditions relevant to operation phase

Clause	Requirement	Demonstration of Compliance
<b>Statement of commitments</b>		
SOC 13-14	TPI to employ compliance officer	Position is fulfilled by the Cleanaway HSE, an approved and budgeted position.
SOC 15	TPI will develop and implement an IEMS.	Site was independently audited and Certificated by SAI Global for compliance to ISO 14001, ISO 9001 and AS4801 on 26th Oct 07 and was recertified on Nov 2008 Nov 2009 March 2011, March 2012, and June 2013
SOC 16	IEMS to be reviewed at least annually.	As above.  Last recertification audit was on 10 August 2018.
SOC 20-24	Communication and consultation requiring public advertisement of 24 hour contact numbers, consultation with public, property owners, and have a complaints Management System	Advertisement placed in local paper, Documented. Registered documented.
SOC 25	SOC states maximum oil 36 000 tonne pa limit.  This has been increased with DPE approval to 40 000 tpa.	EPL 12555 is in line with this category.
SOC 26 – 27	Ground water quality criteria to be based on ANZECC trigger limits.	Annual groundwater testing of groundwater was undertaken during the reporting period.
SOC 23	Surface Water requires sampling	Sampling occurs quarterly in accordance with SWMP.
SOC 28 – 29	Soil and Water Quality Management Plans for the construction and operation to be prepared.	Addressed in OEMP sent 11/5/08.  Revised Storm water Management Plan and inspection and test plan prepared March 08.
SOC 30	Soils and Land Contamination mitigation measures.	Monthly site inspections.
SOC 31	Flora and Fauna mitigation measures.	Vegetation management plan sent 26/3/07. In progress, expected completion date 31/10/09. Complete see SOC 46

Clause	Requirement	Demonstration of Compliance
SOC 36	Air Quality Management requirements:	Air Quality Management Plan sent 20/3/08.
SOC 36.c	Source emission monitoring to validate EPL compliance	An ongoing requirement of the site EPL. Independent contractor engaged to perform the task on an annual basis.
SOC 36 d	Annual monitoring program including potential compound specific emissions	As part of 36 c
SOC 37	Operate facility in accordance with POEO act	Ongoing
SOC 38	Prepare Air Quality Management Plans as part of CEMP and OEMP	Air Quality Management Plan sent 20/3/08.
SOC 39	Operational Air Quality Objectives	Results from air quality are assessed against EPL. Ongoing
SOC 46	Visual Mitigation Measures.	A total of 78 trees were planted on the Cleanaway site to fulfil the obligation of the Vegetation Management Plan. 25 Eucalyptus Maculata and 25 Eucalyptus Fibrosa planted along the southern boundary (P1) fenceline, 6 She Oaks planted at (P2), Eucalyptus paniculata planted (P4), a number of Melaleuca Revolution and Callistemon Saligus in area P3 to replace trees lost since commencement of operation. Complete.
SOC 47	Landscape Plan	See above SOC 46.
SOC 48	Traffic Management Plan.	Sent 27/9/06  Updated May 2015
SOC 49	Energy use plan	Pipe lagging inspected on monthly site inspections.  Addressed by Energy Efficiency Operation Act requirements
SOC 50	Waste management plan	All waste on site is in accordance with the EPA Waste Classification Guidelines. Licence variation to include waste generation sent to EPA 17/3/08.



Clause	Requirement	Demonstration of Compliance
SOC 51	Hazards and risk include on risk register	Risk Register has been prepared, independent Hazard audit has been undertaken with findings being addressed.  Risk Register reviewed in April 09. All findings addressed.  Active Risk Management reviewed and updated monthly as per the S&S plan.
SOC 52	Check Emergency Management Plan	Sent 6/3/07  Reviewed in February 09.  The Site Emergency Management Plan was updated Feb 2011 and Nov 2011.  A Pollution Incident Management Response Plan has also been prepared in July 2012 as required by new Environmental Regulations. PIRMP updated 9/2/2016.
<b>Consent conditions: Project Approval 05_0037</b>		
1.1 f)	Conditions of this approval.	Addressed by this report.
1.3 a)	Any reports, plans or correspondence that are submitted by the Proponent in accordance with this approval; and	As required
Vegetation management plan	Requires planting of vegetative screen, removal of weeds.	78 Trees planted (for details refer SOC46 above) weed/grass to be removed, see SOC 31.
Traffic management	6 monthly audit required	Included on inspection and Test Plan.
Air Quality management plan	Annual emission tests undertaken	Testing was undertaken in November 2017, as per attached reports from Assured Monitoring Group (AMG).
	Monthly dust monitoring required	Monthly dust monitoring program commenced April 08 and ceased on 30 October 2011 due to Project Approval Modification dated 18th October 2011.

Clause	Requirement	Demonstration of Compliance
	Anemometer required.	Anemometer in place and operational. Data backed up weekly.
	Boiler combustion tuning to be undertaken annually	Boiler combustion tuning is conducted during annual boiler service and whenever units are maintained.
Stormwater management	Stormwater monitoring	Included on monthly site inspection.  Sampling equipment and documented procedure on site.
1.3 b)	The implementation of any actions or measures contained in those reports, plans or correspondence submitted by the Proponent.	See Inspection & Test Plan.
2.4 Dust	The Proponent shall design, construct, operate and maintain the project in a manner that prevents and/or minimizes air pollution	Assured Monitoring Group (AMG). No dust concerns during construction stages. Function of the site does not generate dust. Dust monitoring ceased 30/10//2011.
2.5 Odour	The Proponent shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the Protection of the Environment Operations Act 1997	There have been, well known and documented odour issues within the industrial estate, although Cleanaway Refiners have received no direct complaints.  Issue addressed in Odour Audit.
2.6	Air Quality Criteria - 2.7 The Proponent shall design, operate and maintain the project in a manner that would achieve emissions compliance with the:	
2.6 a)	Air quality criteria specified in Table 1 of the Modification Approval (16 May 2007);	Refer to section 4 of this report
2.6 b)	the requirements of the Protection of the Environment (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005; and	Refer to section 4 of this report
2.6 c)	The requirements of Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (August 2005).	See AQMP dated 20th March 2007

Clause	Requirement	Demonstration of Compliance
2.9	The Proponent shall ensure that the flare is designed, constructed and operated in accordance with the requirements of Clauses 38 – 41 of the Protection of the Environment (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation	Flare Design Brief 22/11/06
2.10	The Proponent shall design, operate and maintain the project in a manner that complies with all requirements of the EPA as specified in the EPL for the project with respect to volatile organic liquid control equipment prescribed in Part 5 of the Protection of Environment Operations (Clean Air) Amendment (industrial and Commercial Activities and Plant) reg 2005	Resource Recovery and Recycling Facility, Rutherford – Preferred Project Report  Refer EPL Compliance section below.
2	Operation of the Flare	
2.11	The Proponent shall not operate the flare except during start-up, shutdown and process upsets. For the purposes of this condition, process upsets shall not exceed 2% of the process operating time per annum. This excludes the initial commissioning period of the project, which is defined as three months from the start-up date of the project.	Flare is operated in accordance with these requirements (also refer condition O6 of the EPL).
2.12 a)	Throughout the life of the project, the Proponent shall keep and maintain detailed records of each use of the flare on site, and the details of all process upsets, start-ups and shutdowns. The records shall be made available to the EPA upon request, and shall include: a) the flare start and stop time, and the reasons for its use;	A flare log is maintained in accordance with this condition (refer also condition M7.1 of the EPL). The Flare log is kept in the Refinery control room.
2.12 b)	b) the process start and stop time, and the reason for each process upset.	Flare log kept in control room, percent time calculated on Monthly site inspection.
2	Boilers	
2.13	The Proponent shall not burn or use waste oil and other non-standard fuels as fuel at the site.	Included in EPL No 12555.
2	Soil and Water	

Clause	Requirement	Demonstration of Compliance
2.15	Except as may be expressly provided in an EPL for the project, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997, which prohibits the pollution of waters.	CEMP Storm water Management Plan. Monthly Site inspections, Site inspection and Inspection and Test Plan.
2.16	Prior to the commencement of operations, the Proponent shall ensure that storm water management measures are implemented to mitigate the impacts of storm water run-off from and within the site in a manner that is consistent with the Storm water Management Plan for the catchments. Where a Storm water Management Plan has not yet been prepared, the measures shall be consistent with the guidance contained in Managing Urban Stormwater: Council Handbook (EPA).	CEMP SWMP in place, with adequate systems and procedures in place during construction in regards to storm water. Downstream defender in place with regular inspections and sampling of exit points. Storm water management system upgraded in September 2011 to divert bund water run-off to trade waste.
2	Noise	
2.19	The Proponent shall only undertake construction activities associated with the project, that are audible at any residential receptor, between the following hours:  a) 7:00 am to 6:00 pm, Mondays to Fridays, inclusive  b) 8:00 am to 1:00 pm on Saturdays; and  c) at no time on Sundays or public holidays.	Construction complete
2.20	The Proponent shall ensure that noise from the project at the nearest sensitive receiver does not exceed the criteria specified in Table 2 at those locations and during those periods indicated	Report included with 2009 Annual Environmental Report
2	Pre-commissioning - Prior to the commencement of operation of the project, the Proponent shall prepare and submit for the approval of the Director-General the following studies:	
2.22 a)	An Emergency Management Plan and detailed emergency procedures for the site.	Site Emergency Management Plan sent 6/3/07

Clause	Requirement	Demonstration of Compliance
2.22 b)	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	Safety Management Systems sent 6/3/07
2	Dangerous Goods	
2.24	All chemicals, fuels and oils shall be stored in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund.	All Dangerous Goods stored in accordance with AS1940.
2	Transport	
2.26	The Proponent shall ensure that B-Doubles associated with the site do not use the New England Highway and Kyle St intersection at any time until the intersection has been upgraded to cater for B-Double movements. In the interim, B-Doubles associated with	Driver code of conduct no longer in use due to intersection upgrade that allows access for B-doubles
2.27	To enforce the nominated B-Double route, as conditioned in 2.26, the proponent shall implement a Transport Code of Conduct for the project. The Code of Conduct shall include, but not necessarily be limited to, the following:	As above
2.27 a)	Details of the measures that would be implemented to enforce this route. This shall include, but not restricted to, contractual arrangements and disciplinary action;	Transport Code of Conduct and driver sign off, AS 2.27
2.27 b)	a program of driver training to ensure that drivers are aware of route restrictions applicable to the development;	Transport Code of Conduct and driver sign off. This is also covered during driver induction training.
2.27 c)	communication and management strategies for both the Proponent's own fleet and contracted fleet to ensure the requirements of the code are met;	Transport Code of Conduct and driver sign off.
2.27 d)	the incorporation of a regular audit and monitoring program for the Code to determine compliance with the Strategy by heavy vehicles associated with the development and to evaluate the effectiveness of the Code in enforcing this route	Inspection and Test Plan.



Clause	Requirement	Demonstration of Compliance
2.28	The Proponent shall ensure that: a) all car parking on the site is constructed in accordance with the relevant requirements in AS 2890.1-2004;	Internal Traffic Management Plan sent 13/12/06
2	Flora and Fauna	
2.31	The Proponent shall minimize any clearing of vegetation during construction work, and shall retain the vegetation community, referred to as 'Remnant 4' on Map Reference 2118506A_2001 (Figure No.11 of the EAR), and partially retain the vegetation community, referred to as 'Remnant 3', throughout the life of the development in a healthy and tidy state.	Refer to SOC 46. Complete.
2	Visual	
2.32	The Proponent shall ensure that all external lighting associated with the project: a) does not create a nuisance to surrounding properties or roadways; and b) complies with AS 4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting.	CEMP
2	Asbestos	
2.33	The Proponent shall handle and dispose of asbestos containing materials in accordance with the Protection of the Environment Operations (Waste) Regulation 1996.	All asbestos sheeting has been removed. We conduct asbestos monitoring on-site twice annually. All asbestos monitoring is below detection limits.
2.34	Prior to the commencement of construction work at the site, the Proponent shall ensure that all asbestos-containing materials, including friable asbestos particles within soil, are identified, treated and/or removed to ensure no long-term impact on human	CEMP Complete however requires ongoing updates.
2.35	The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version	CEMP complete
3	Environmental Management and Monitoring	
3	Environmental Representative	

Clause	Requirement	Demonstration of Compliance
3.1	Prior to the commencement of construction, the Proponent shall employ a suitably qualified and experienced environmental representative/s, whose appointment has been endorsed by the Director-General. The Proponent shall employ this representative/s throughout the life of the project, and notify the Director General of any changes to the appointment that may occur from time to time.	Nomination approved by the DG. 18/9/06
3	Environmental Management and Monitoring	
	Operational Monitoring - Air	
3.2	Air quality monitoring will be undertaken in strict accordance with the requirements set out in the EPL covering the operation of the facility and the Rutherford Resource Recovery and Recycling Facility Air Quality Management Plan (AQMP) prepared by Pacific Air and Environment (PAE), dated 20 March 2007	Air Quality Management Plan (AQMP)  Testing was undertaken per attached reports.
3	Operation Environmental Management Plan	
3.5	Prior to the Commencement of operations, the Proponent shall prepare (and following approval implement) an Operation Environmental Management Plan (OEMP) for the project, in consultation with the EPA, DNR and Council, and to the Satisfaction of the Director Prior to the Commencement of operations, the Proponent shall prepare (and following approval implement) an Operation Environmental Management Plan (OEMP) for the project, in consultation with the EPA, DNR and Council, and to the Satisfaction of the Director General. This plan must describe the environmental management framework practices and procedures that would be followed during operations and Include:	OEMP sent 11/5/07  2009 report states OEMP sent 6/3/07  Operation Environmental Management is governed by the Cleanaway Health Safety and Environment Management Plan.
3.5 a)	Identification of all statutory and other obligations that the Proponent is required to fulfil in relation to operation of the development, including all approvals, licenses, and consultations;	OEMP sent 11/5/07  2009 report states OEMP sent 6/3/07  Health Safety and Environment Planner.

Clause	Requirement	Demonstration of Compliance
3.5 b)	A description of the roles and responsibilities for all relevant employees involved in the operation of the development;	OEMP sent 11/5/07  2009 report states OEMP sent 6/3/07
3.5 c)	Overall environmental policies and principles that will be/are applied to the operation of the development.	OEMP sent 11/5/07  2009 report states OEMP sent 6/3/07
3.5 d)	Standards and performance measures that will be applied/are to the development, and a means by which environmental performance can be periodically reviewed and improved;	OEMP sent 11/5/07  2009 report states OEMP sent 6/3/07  Environmental Performance reviewed in this report and the annual report to EPA.
3.5 e)	Management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval;	OEMP sent 11/5/07  2009 report states OEMP sent 6/3/07
3.5 f)	Details of all landscaping to be undertaken on this site;	OEMP sent in 2007  Refer to SOC 46. Complete.
3.5 g)	The various management plans required under this approval; and	Multiple management plans outlined above in SOC section of this plan.
3.5 h)	Contingency measures should monitoring of environmental issues under this approval indicate that the development has had, or is having an adverse environmental impact	Refer Ground Water and Air Quality management plans as well as INCR procedure.
3.6	The OEMP for the project shall include the following Management Plans:	

Clause	Requirement	Demonstration of Compliance
3.6 a)	<p>An Air Quality Management Plan outlining the measures that would be implemented to minimise and manage air quality impacts of the proposal, particularly odour. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>i) identification of all point and diffuse sources of air quality emissions associated with the project;</li> <li>ii) a detailed description of the mitigation methods and management practices that would be used throughout the project, particularly methods to ensure offensive odour impacts do not occur off site, and a demonstration that these measures are consistent with industry best practice;</li> <li>iii) a detailed monitoring program for the project;</li> <li>iv) details of the contingency measures that would be implemented if non-compliance with air quality emission criteria is detected or if offensive odour impacts occur; and</li> <li>v) a procedure for handling complaints</li> </ul>	Air Quality management Plan (AQMP) sent 20/3/07
3.6 b)	<p>A Transport Code of Conduct to outline measures to manage all heavy vehicle traffic movements associated with the project to minimise impacts on the local and regional road network, including traffic noise. The Code shall address the requirements of the Council and the RTA and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>i) restrictions to routes, where relevant</li> <li>ii) management measures to reduce volumes of heavy vehicles travelling to and from the site during peak hours, particularly B-Double movements at the Kyle St/New England Highway intersection during peak hours; and</li> <li>iii) details of what disciplinary actions would be taken should any non-compliance with the Transport Code of Conduct be detected</li> </ul>	Transport Code of Conduct (TCC) sent 6/3/07

Clause	Requirement	Demonstration of Compliance
3.6 c)	<p>A Groundwater Management Plan to detail measures to monitor, and where applicable, manage the impact on groundwater. The Plan shall be prepared in consultation with DNR and EPA, and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>i) Details of baseline groundwater quality, as present prior to the commencement of construction of the development;</li> <li>ii) Groundwater assessment criteria for a broad range of parameters, including, heavy metals, total nitrogen and total phosphorous;</li> <li>iii) Monitoring program of groundwater quality, including frequency of monitoring and monitoring locations;</li> <li>iv) Details of contingency measures and management options should monitoring of groundwater quality indicate that the development has had, or is having, an adverse effect on groundwater quality;</li> <li>v) Details of the nominated contingency measures and management options, should monitoring of groundwater quality indicate that the development has exceeded these criteria. These levels and contingency and management options must be developed to the satisfaction of the EPA and DNR</li> </ul>	<p>Groundwater Management Plan (GWMP) 21/3/07</p>
3.7	<p>Within 3 months of the completion of each Independent Environmental Audit (see condition 4.4), the Proponent shall review and update the Operational Environmental Management Plan (OEMP) for the project, in consultation with the EPA and Council, and to the</p>	<p>Complete.</p>
5	<p>Environmental Reporting</p>	
	<p>Incident Reporting</p>	
5.1	<p>The Proponent shall notify the EPA and the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after the occurrence of the incident. The Proponent shall provide written details of the incident to EPA and the Director General within seven days of the date on which the incident occurred.</p>	<p>Cleanaway Incident Reporting Procedure  A Pollution Incident Management Response Plan has also been prepared in July 2012 as required by new Environmental Regulations.</p>

Clause	Requirement	Demonstration of Compliance
5	Annual Performance Reporting	
5.2	Within 12 months of the commencement of operations, and annually thereafter, the Proponent shall submit an Annual Environmental Management Report (AEMR) for the project to the EPA, Council and the Department. The AEMR shall include:	This report is the tenth AEMR to be submitted.
	a) details of compliance with the conditions of this approval, and any other licences and approvals for the project;	As above
	b) a list of variations obtained to approvals applicable to the development and to the site during the preceding twelve-month period;	As above
	c) a copy of the Complaints Register for the preceding twelve-month period (exclusive of personal details) and a description of how these complaints were addressed and resolved;	As above
	d) results of all environmental monitoring required under this approval and other approvals, including interpretations and discussion by a suitably qualified person;	As above
	e) a list of all occasions in the preceding twelve-month period when environmental performance goals for the development have not been achieved, indicating the reason for failure to meet the goals and the action taken to prevent recurrence of that type of	As above
	f) a comparison of the environmental impacts and performance of the development against the environmental impacts and performance predicted in the EA and the additional information listed under condition 1.1	As above
	g) identification of trends in monitoring data over the life of the development to date; and	As above
	h) environmental management targets and strategies for the following twelve-month period, taking into account identified trends in monitoring results.	As above
6	Access to Information	



Clause	Requirement	Demonstration of Compliance
6.1	Subject to confidentiality, the Proponent shall make all documents required under this approval publicly available	As Required
6	Complaints Procedure	
6.3	The Proponent must record details of all complaints received about the project in an up-to-date Complaints Register	Complaints Procedure
6.3	The Complaints Register must be made available for inspection by the Director-General upon request	Complaints Register Available as requested

### EPIL12555 Reporting requirements

Condition	Requirement	Demonstration of Compliance
L2.2	Load limits	Annual emission report being undertaken.
L3	Concentration limits	Annual emission report being undertaken.
L5	Noise Limits	See Noise Validation report.
O3.1	Within 3 months of issue emergency response plan must be developed	Located at front gate
O5.1	All above ground tanks must be bunded or have alternative spill containment systems in place	Sighted on inspection
O5.2	All tanks to have suitable measures (high/low alarms control valves etc.) to prevent spills	Sighted on inspection
O6	Flare operation	Logging system in place
M5	Monitoring records to be kept and be readily producible	On file
M2.1	Requirement to monitor concentration of pollutants	Annual emission report
M4	Requirement to monitor weather	System installed.
M5	Recording pollution complaint	Complaint folder on site
M6	Telephone complaints	Complaint folder on site
M7.1	Records of flare operation	Flare log on site

Condition	Requirement	Demonstration of Compliance
R1	Annual return	Annual Return submitted to EPA on 27/11/2018
R1.9	Results of air quality test must be submitted to EPA within 6 months of issue of license	All available reports have been submitted to the EPA as required.

## Appendix B: Conditions previously reported, which relate to construction or pre operational issues.

Clause	Requirement	Demonstration of compliance
<b>Statement of commitments</b>		
SOC 7	Pre-construction compliance report.	Amendments to pre-construction document date sent 16/03/07.
SOC 9	Construction Compliance report	Sent 21st Feb 07 & 22 Aug 07
SOC 10	Pre operation Compliance report	Sent 22/08/07
SOC 12	Environmental Impact Report.	Air Noise Validation Report from ENSR, sent 22/12/08
SOC 17	CEMP to be prepared and implemented.	Sent to DoP 10/10/06
SOC 18	Audit OEMP against SOC	OEMP Sent 6/3/07  OEMP was superseded by the TPI National Integrated Management System (NIMS) which includes a Business Unit Annual Plan (BUAP).
SOC 19	Appointed Construction contractors have EMS prepared in accordance with ISO 14001.	CEMP was sent 10/10/06
SOC 32	Clearing Management Plan required prior to construction.	Detailed in CEMP Sent 24/11/06, Construction complete
SOC 33	Indigenous Heritage to be protected during construction.	No significant heritage was identified in study under taken, indigenous or otherwise.  Complete
SOC 34	Non - Indigenous Heritage	As above  Complete
SOC 35	CEMP to identify and protect heritage items.	No heritage items were identified in initial studies. CEMP required any

Clause	Requirement	Demonstration of compliance
		additional items to be notified to project manager complete
SOC 36 a	Post commissioning validation in respect to odour	See Comprehensive Odour Audit submitted 19/12/08.  Updated copy of the Pollution Reduction Program was submitted 5th October 2010
SOC 36 b	Full odour audit with olfactometry analysis	See Comprehensive Odour Audit submitted 19/12/08.
SOC 36 e	Dust monitoring to assess dust levels	Monthly dust monitoring program by ENSR, commenced April 08 and ceased on 30 October 2011 date, due to Project Approval Modification dated 18th October 2011.
SOC 40-42	Construction noise management plan	Addressed in CEMP. Complete
SOC 43-45	Operation Noise Management Plan.	Addressed in OEMP. Complete
Ground water management plan	Monthly level measurements	Monthly measurements commenced April 2008 and ceased on 30th October 2011 under Project Approval Modification dated 18th October 2011
	quarterly VOC tests requires	Scheduled quarterly testing by ENSR commenced November 07.  This has been replaced with the project approval modification dated the 18th October 2011. Bi-annual testing is now undertaken as per the EPL.
<b>Project Approval PA 05_0037</b>		
1	Administrative Conditions - The proponent shall carry out the project generally in accordance with the:	
1.1 a)	EAR as amended by the preferred project report (Resource Recovery and Recycling Facility, Rutherford – Preferred Project Report), prepared by Parsons Brinckerhoff Australia Pty Ltd and dated May 2006;	Resource Recovery and Recycling Facility, Rutherford – Preferred Project Report

Clause	Requirement	Demonstration of compliance
1.1 b)	Statement of Commitments (SOC) , prepared by Parsons Brinckerhoff Australia Pty Ltd and dated 19 May 2006; and	See below.
1.4	The Proponent shall not process more than 40,000 tonnes of waste lubricant oils a year at the hydrogenation plant.	Included in EPL No 12555
1.5	This proposal shall lapse five years after the date on which it is granted.	The plant is now operational.
2.1	Except as provided in condition 2.2 of this consent and/or expressly permitted by an EPL, the Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing or disposal	Included in EPL No 12555
2.2	The Proponent shall only receive, store, treat, process or reprocess the following wastes at the site: Waste lubricant Oils	Included in EPL No 12555
2.3	The Proponent is prohibited from storing green waste and septic waste on site.	Not part of Cleanaway Refiners business
2.7	Design, operate and maintain the project in a manner that would achieve Best Available Control Technology for toxic air pollutants specified in Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (August 2005)	Addressed by Resource Recovery and Recycling Facility, Rutherford – Preferred Project Report
2.8 a)	The Proponent shall ensure that all stack air emission points at the site are designed to broadly conform to the general requirements of Guidelines for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height	Stack Location Report 12/09/2007
2.8 b)	The Proponent shall ensure that all stack air emission points at the site are designed to accommodate and be built with sampling ports that conform with TM-1 as specified in Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales	Stack Location Report 12/09/2007.
2.9	The manufacture's design specification for the flare must include the design destruction efficiency and must be submitted to the EPA for approval. The EPA's approval in writing must be obtained by the Proponent prior to the installation of the flare,	Flare Design Brief 22/11/06

Clause	Requirement	Demonstration of compliance
2.17	Prior to the commencement of construction, the Proponent shall submit to the Director-General for approval, a soil contamination validation report to confirm the presence, or otherwise, of any contamination within the construction footprint of the development, and to demonstrate that any contamination on the site is not inconsistent with the development. The validation report shall be prepared by a suitably qualified and independent person(s), and shall detail any additional measures that shall be implemented to address contamination, if identified, and if required	Soil Contamination Report sent 10/10/06
2.18	<p>Within six months of the granting of the modified consent, the Proponent must complete the following groundwater contamination investigation and works which includes, but need not be limited to the following:</p> <p>a) An assessment of the potential for off-site migration of chemicals of potential concern (including Tetrachloroethene);</p> <p>b) Identification, based on the activities carried out at the site, of suspected source locations. If suspected source locations are identified, an evaluation of the presence of DNPLs trapped in or above lower permeability zones above the regional groundwater aquifer must be undertaken (note that care must be taken to ensure that the regional aquifer is not penetrated at suspected source locations);</p> <p>c) Works to assess regional groundwater and determination of hydrogeological characteristics (such as flow and direction). Such works must include the installation of additional wells across the site to:</p> <ul style="list-style-type: none"> <li>- enable the groundwater flow direction to be determined;</li> <li>- further investigate the lateral and vertical extent of groundwater contamination;</li> <li>- enable more accurate falling head tests and/or a pump test to be undertaken; and</li> </ul>	<p>Groundwater Contamination Report 18/4/07, the finding of this report requires the installation of further bores and an assessment on the cation exchange capacity of the soil.</p> <p>This work commenced on 24/4/08, report submitted 21st July 08.</p> <p>As above</p> <p>As above</p> <p>As above</p>

Clause	Requirement	Demonstration of compliance
	- allow collection of soil samples within the water bearing zone.	
	d) Soil samples collected must be analysed for organic carbon content and cation exchange capacity to allow fate and transport modelling to assess the potential for adsorption and retardation of dissolved organic compounds;	As above
	e) An assessment of risk posed by the contamination and recommendations for appropriate management requirements.	As above
	The Director-General and the EPA must be provided with a copy of the report detailing the results of the investigations within 7 months of the modified development consent being granted.	As above
	The Proponent shall comply with all reasonable requirements of the Director-General and the EPA in respect of the implementation of any measures presented in the Report. Any such works shall be completed within such time as the Director-General or the EPA may require.	All requests have been met
2	Hazards and Risks	
2.21 a)	Fire Safety Study covering the relevant aspects of the Department of Planning's Hazardous Industry Planning Advisory Paper No. 2	Revised Fire Safety Study sent 31/11/06.  Fire Study revised and updated April 2013.
2.21 a)	Fire Safety Study covering the relevant aspects of the Department of Planning's Hazardous Industry Planning Advisory Paper No. 2 - approval for this study shall also be obtained from the Commissioner of the NSW Fire Brigades/Rural Fire Service.	Fire Safety Study sent 31/11/06
2.21 b)	Hazard and Operability Study, The study shall be carried out in accordance with Department of Planning's Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines.	Hazard and Operability Study sent 3 Nov 06



Clause	Requirement	Demonstration of compliance
2.21 b)	Hazard and Operability Study, undertaken by an independent qualified person approved by the Director-General.	Approval received 24/10/06
2.21 c)	Final Hazard Analysis prepared in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis.	Final Hazard analysis sent 13/12/06
2.21 d)	Construction Safety Study prepared in accordance with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Guidelines	Construction Safety Study sent 30/11/06
2	Post Commissioning	
2.23	Prior to commencement of operations, the Proponent shall submit to the Director-General, a Pre-Start up Compliance Report, detailing compliance with conditions 2.21 and 2.22 including:	Pre start up compliance Report sent 22 Aug 07
	a) dates of commissioning of plant;	Commissioning of plant commenced 22 May 07 to 22 Sept 07.
	b) an action plan to implement recommendations made in studies listed in conditions 2.21 and 2.22; and	Ongoing requirements included in Annual Inspection and Test Plan.
	c) responses to each requirement imposed by the Director-General in respect of implementation of any measures arising from recommendations of the studies or reports referred to in conditions 2.21 and 2.22 and the hazards-related conditions of this approval, within such time as the Director-General may agree.	Letter of approval received 3 Oct 07
2.25	Prior to the Commencement of operations or as otherwise agreed by the Director-General, the Proponent shall provide a monetary contribution of \$60, 000 to the RTA towards the upgrade of the New England Highway and Kyle St intersection to accommodate B-double.	Bank Guarantee Receipt issued May 2007
2.29	Prior to the commencement of construction work, the proponent shall submit to the Director General documentation detailing the internal traffic management plan, particularly the internal road works and car parking arrangement for the project.	Internal Traffic Management Plan sent 27/9/06

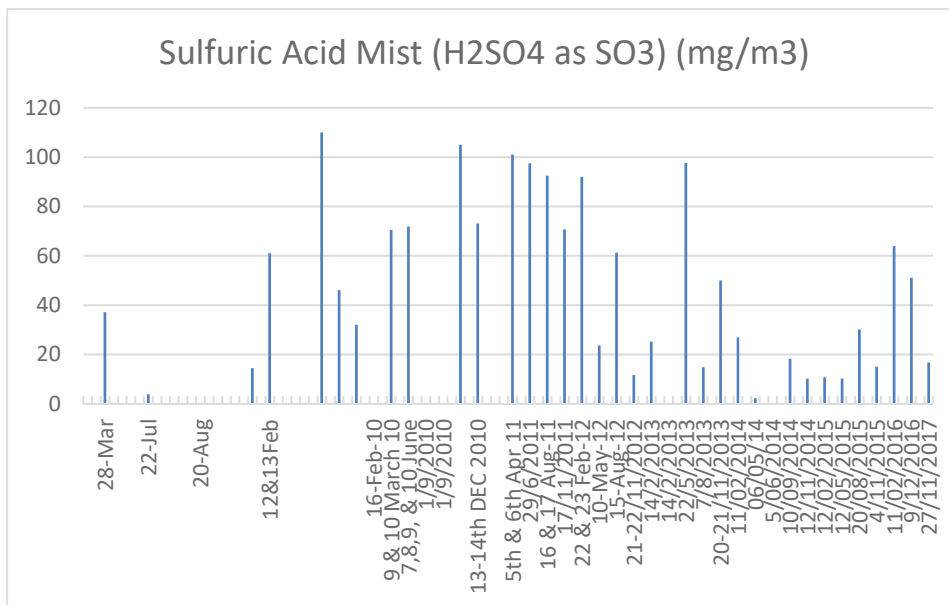
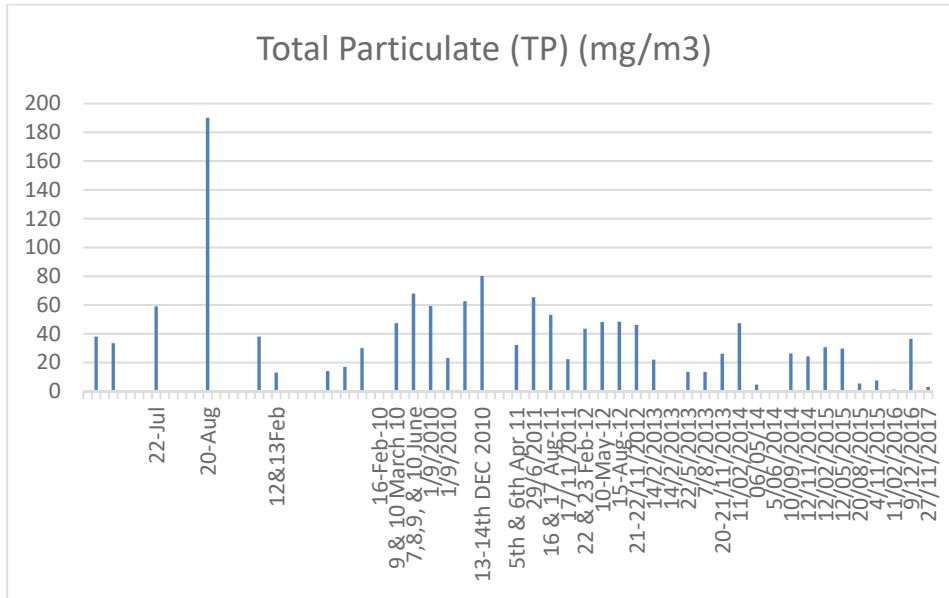
Clause	Requirement	Demonstration of compliance
2.30	Prior to the commencement of construction work, the proponent shall demonstrate to the Director General that any applicable consent for the site access road works have been granted under section 138 of the Roads Act 1993.	Internal Traffic Management Plan sent 27/9/06
3	Construction Environmental Management Plan (CEMP)	Construction complete
3.3	Prior to the commencement of construction, the Proponent shall prepare (and following approval implement) a Construction Environmental Management Plan (CEMP) for the project to the satisfaction of the Director-General.	CEMP sent 10/10/06
3.4 a)	Soil, Water and Dust Management Plan to detail measures to minimise the disturbance of soil, erosion and the generation of dust during construction of the project.	CEMP sent 10/10/06
3.4 b)	Soil Contamination Protocol to manage soil contamination during site preparation and construction works	CEMP sent 10/10/06
3.4 c)	Vegetation Management Plan to detail measures to minimise the impact of vegetation clearing associated with the project and manage the rehabilitation of remaining remnants throughout the life of the development	Refer to SOC 46. Complete
4	Compliance	
4.1	Prior to the commencement of construction and operations, the Proponent shall certify in writing to the satisfaction of the Director-General, that it has complied with all the applicable conditions of this approval	Pre-Construction Compliance Report sent 11/1/07
4	Compliance, Auditing and Independent Auditing	
4.2	Air Quality and Noise Validation Report	Report submitted 19 Dec 08
	Within 3 months of commissioning operations at the site, the Proponent shall submit an Operational Air and Noise Validation Report for the Project. This Report shall:	AS above
	a) be undertaken by a suitably qualified and experienced person(s);	ENSR

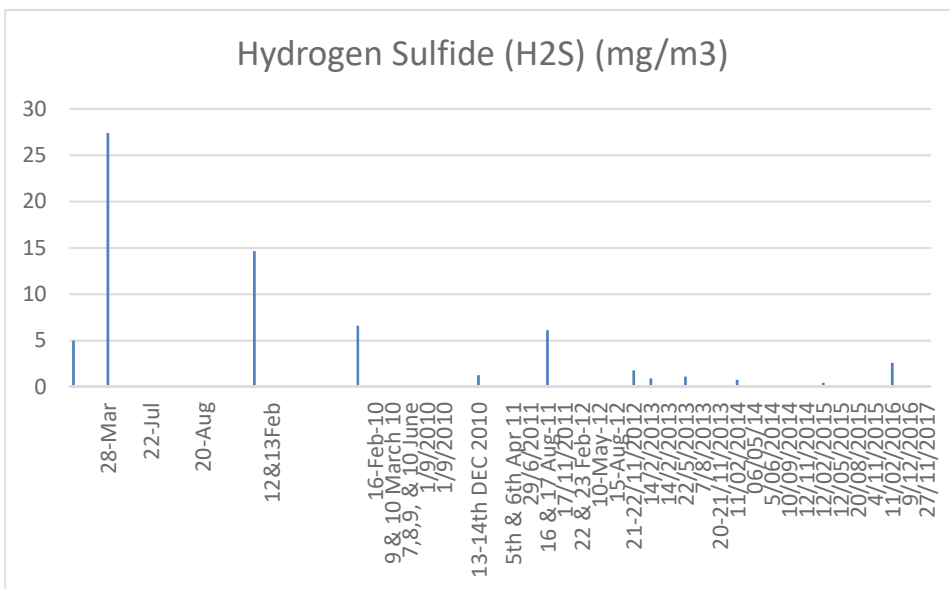
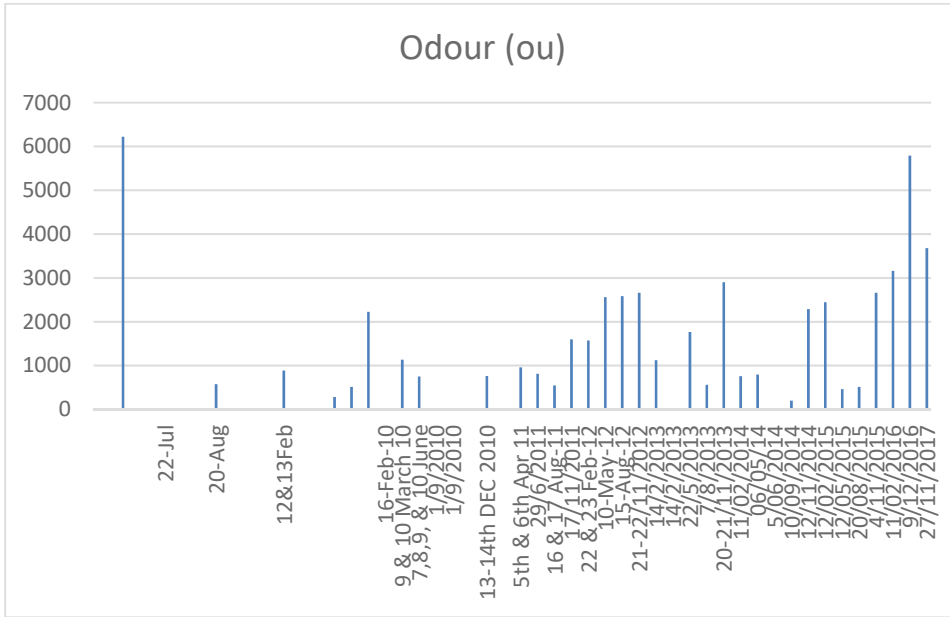
Clause	Requirement	Demonstration of compliance
	b) assess whether the project is complying with noise criteria specified in condition 2.20 of this approval, and identify what additional measures could be implemented to ensure compliance should any non-compliance be detected;	As above
	c) validate that the performance of the project reflects the assumptions and conclusions made in the Preferred Project Report and the Environmental Assessment for Transpacific Refiners, Modifications to Existing Development, date 12 April 2007;	As above
	d) undertake air quality validation and performance verification reporting as detailed in the AQMP prepared by PAE, dated 20 March 2007 to validate compliance with the Protection of the Environment Operations (Clean Air) Amendment Regulation 2005 and the emissions inventory of the project as detailed in the Environmental Assessment for Transpacific Refiners, Modifications to Existing Development, dated 12 April 2007.	As above
	e) provide details of each round of Performance Verification Monitoring such that the monitoring frequency for all pollutants can be reviewed, as specified in the AQMP;	As above
	f) identify what additional measures could be implemented to ensure compliance should any non-compliance be detected; and	As above
	g) provide details of any complaints received relating to air quality generated by the project, and action taken to respond to those complaints.	As above
4.3	If the report identifies any non-compliance with the air quality limits imposed under this approval, an EPL for the development and/or does not reflect the conclusions made within the Environmental Assessment for Transpacific Refiners, Modifications to Existing Development, dated 12 April 2007, the Proponent shall detail what additional measures would be implemented to ensure compliance, clearly indicating who would implement the measures, when and how the effectiveness would be measured and report to the Director-General and the EPA.	As above

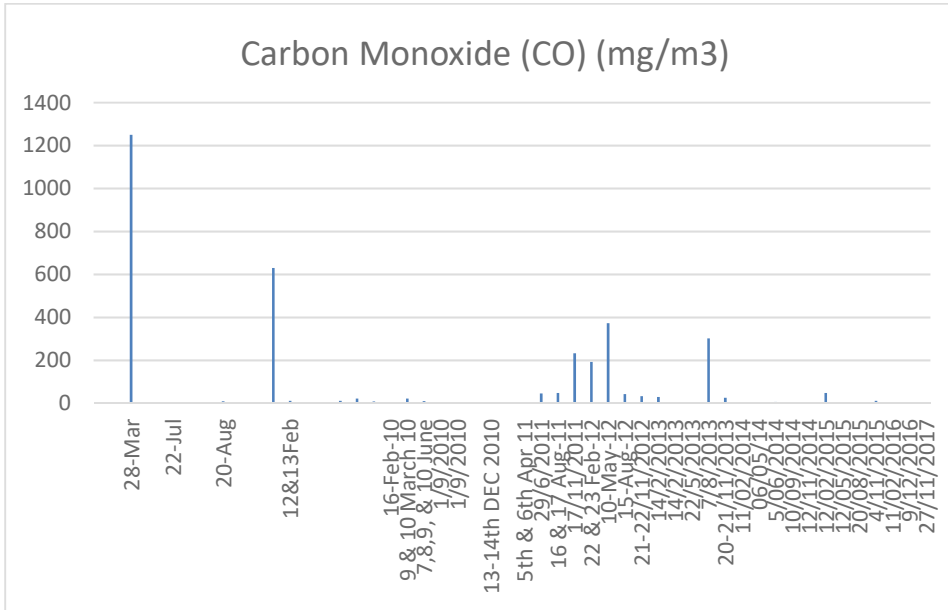
Clause	Requirement	Demonstration of compliance
	The Proponent shall comply with all reasonable requirements of the Director-General or the EPA in respect to the findings presented in the Report.	Agreed
4	Independent Environmental Audit	
4.4	Within one year of the commencement of operations, and then as directed by the Director-General, the Proponent shall commission an Independent Environmental Audit of the development. This audit must:	Report submitted 19 Dec 08
	a) be carried out by a suitably qualified, experienced and independent audit team, that contains an odour specialist and hazard specialist, whose appointment has been endorsed by the Director-General;	As above
	b) be carried out in accordance with ISO 14010 and ISO 14011.	As above
	c) assess whether the project is complying with the conditions of both this approval and the EPL for the project	As above
	d) assess whether the project is being carried out in accordance with industries best practice;	As above
	e) review the adequacy of the OEMP for the project; compliance with the requirements of the approval and other licences and approvals; and	As above
	f) recommend measures or actions to improve the environmental performance of the project, and/or the OEMP for the project	As above
4.5	Within two months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, with a response to any recommendations contained in the audit report	As above
6.2	Prior to the commencement of construction, the Proponent shall establish community complaints system to the satisfaction of the Director-General	Complaints Procedure sent 10/10/06.  Advertisement placed in Maitland Mercury Friday 16 2007.

## Appendix C: Trend graphs discharge points 19 and 5

### Historic air emissions from Discharge Point 19







**Historic air emissions from Point 5**

