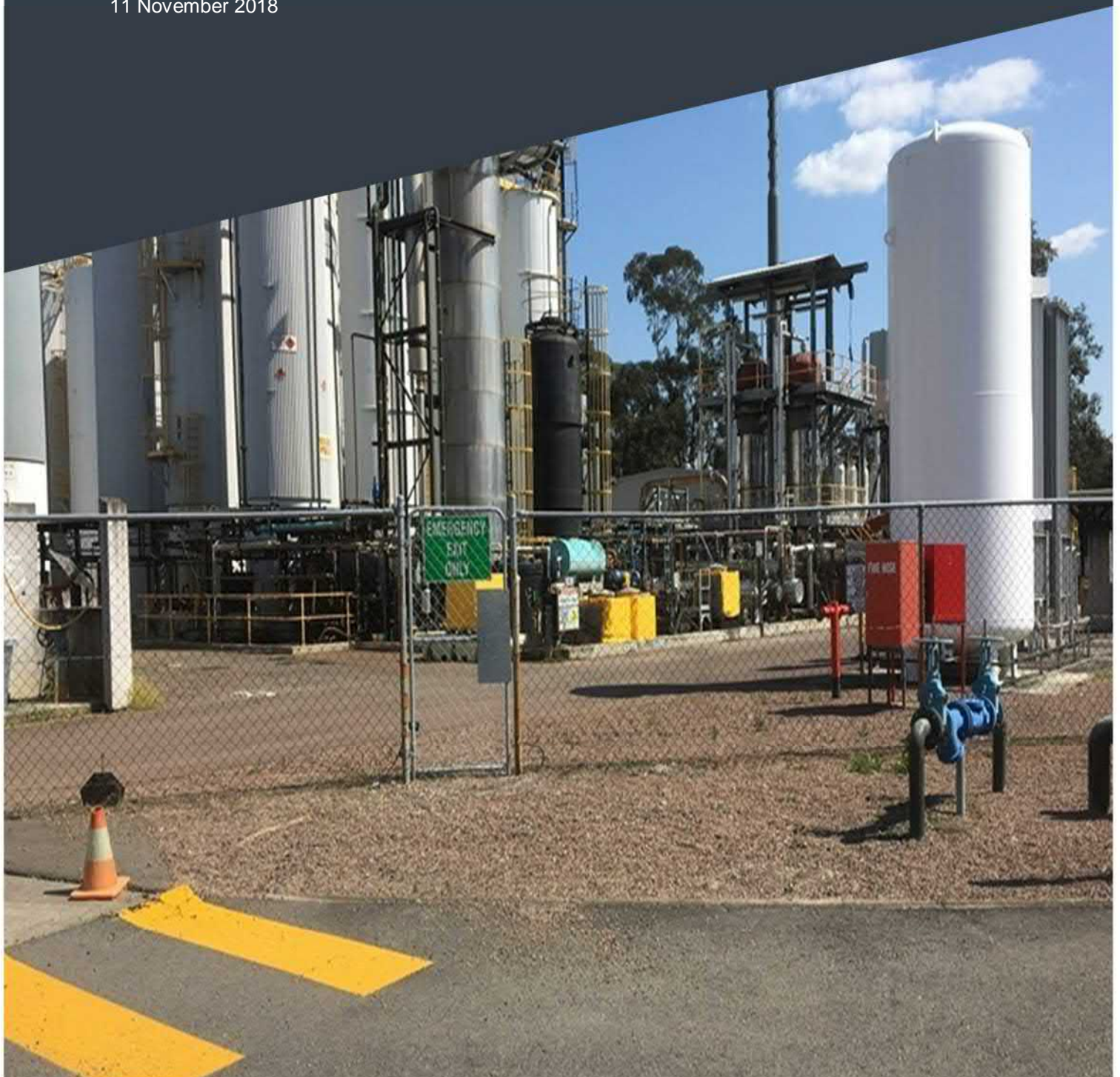


2018 Independent Environmental Audit

Cleanaway Refinery Rutherford (Project Approval 05_0037)

11 November 2018



2018 Independent Environmental Audit

Cleanaway Refinery Rutherford (Project Approval 05_0037)

Client: Cleanaway Refiners Pty Ltd

ABN: 78 114 388 742

Prepared by

AECOM Australia Pty Ltd

Level 21, 420 George Street, Sydney NSW 2000, PO Box Q410, QVB Post Office NSW 1230, Australia
T +61 2 8934 0000 F +61 2 8934 0001 www.aecom.com
ABN 20 093 846 925

11-Nov-2018

Job No.: 60585436

AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 AS/NZS4801 and OHSAS18001.

© AECOM Australia Pty Ltd (AECOM). All rights reserved.

AECOM has prepared this document for the sole use of the Client and for a specific purpose, each as expressly stated in the document. No other party should rely on this document without the prior written consent of AECOM. AECOM undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. This document has been prepared based on the Client's description of its requirements and AECOM's experience, having regard to assumptions that AECOM can reasonably be expected to make in accordance with sound professional principles. AECOM may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified. Subject to the above conditions, this document may be transmitted, reproduced or disseminated only in its entirety.

Quality Information

Document 2018 Independent Environmental Audit

Ref 60585436

Date 11-Nov-2018

Prepared by Katherine Dodd and Helen Onus

Reviewed by Suanna Harvey

Revision History


Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
0	11-Nov-2018	Final IEA Report	Helen Onus Lead Auditor	

Table of Contents

Abbreviations	1
Executive Summary	2
1.0 Introduction	3
1.1 Background	3
1.2 Audit Scope	3
1.3 Audit Methodology	4
1.4 Documents Reviewed	5
1.5 Personnel	5
1.6 Audit Verification Activities	6
2.0 Cleanaway Rutherford Operations	7
2.1 Cleanaway Rutherford Overview	7
2.1.1 Approvals History	7
2.1.2 Operations	7
2.1.3 Approvals, Licences and Leases	8
3.0 Site Inspection Observations	11
4.0 Environmental Performance	23
4.1 Incident Management	23
4.1.1 Reportable Incidents	24
4.1.2 Regulatory Action	24
4.2 Complaint Management	24
5.0 Environmental Management	26
5.1 Review of Management Plans	26
5.2 Operational Environment Management Plan	26
5.3 Groundwater Management Plan	27
6.0 Specialist Areas	29
6.1 Odour Management	29
6.1.1 Odour Site Observations	30
6.1.2 Summary of Effectiveness of Odour Management	35
6.1.3 Air Quality Management Plan Adequacy Review	35
7.0 Actions from the 2008 Independent Environmental Audit	37
8.0 Compliance Summary and Recommendations	39
8.1 Non-Compliant Conditions	42
8.1.1 Project Approval 05_0037	42
8.1.2 Environment Protection Licence 12555	53
8.2 Additional Opportunities for Improvement	58
9.0 Limitations	60
Appendix A	
Compliance Matrix	A
Appendix A1 Audit Checklist Project Approval 05_0037	A-1
Appendix A2 Audit Checklist Environment Protection Licence 12555	A-2
Appendix B	
Audit Team DPE Approval	B
Appendix C	
IEA Site Inspection Meeting Records	C
Appendix D	
Hazard Audit	D
Appendix E	
IEA Declaration Form	E

List of Figures

Figure 1	Location of Cleanaway Rutherford (<i>Source: MOD 5 Environmental Assessment</i>)	9
Figure 2	Cleanaway Rutherford Site Layout (<i>Source: MOD 5 Environmental Assessment</i>)	10
Figure 3	Overview of air quality discharge points (Source: Assured Monitoring Group, 2017)	30

List of Tables

Table 1	Project Approval PA 05_0037 IEA Conditions	3
Table 2	Audit Team	5
Table 3	Summary of Existing Major Approvals and Licences	8
Table 4	Site Inspection Photographs	11
Table 5	Summary of Environmental Incidents from July 2010 to September 2011	23
Table 6	Summary of Complaints received by the EPA for the Rutherford Industrial Estate and Investigated by Cleanaway between 11 June 2008 and 11 September 2018	25
Table 7	Site Inspection Photographs – Odour Specialist	30
Table 8	2008 IEA Recommendations	37
Table 9	Summary of recommendations relating to management plans, site observations and previous IEA recommendations	39
Table 10	Compliance Performance Categories	41
Table 11	Summary of Non-Compliances against Project Approval 05_0037	42
Table 12	Summary of Non-Compliances against EPL 12555	53
Table 13	Summary of Opportunities for Improvement not relating to non-compliances	58

Abbreviations

Abbreviation	Description
AECOM	AECOM Australia Pty Ltd
AQMP	Air Quality Management Plan
BOM	Bureau of Meteorology
Cleanaway	Cleanaway Pty Ltd
Cleanaway Rutherford	Cleanaway Refinery located at Rutherford
CoA	Conditions of Approval
Council	Maitland City Council
DEC	Department of Environment and Climate
DP	Discharge Point
DPE	Department of Planning and Environment
EIS	Environmental Impact Assessment
EPA	Environment Protection Authority
EPL	Environment Protection Licence
GMP	Groundwater Management Plan
IBC	Intermediate Bulk Container
IEA	Independent Environmental Audit
km	kilometres
MOD	Modification
NIMS	National Integrated Management System
OEMP	Operational Environmental Management Plan
OFI	Opportunity for Improvement
PA	Project Approval
PA 05_0037	Project Approval 05_0037
PCE	Perchloroethene /Tetrachloroethne
PIRMP	Pollution Incident Response Management Plan
Secretary	Secretary of the Department of Planning and Environment or delegate
TP	Total Particulate
TPH	Total Petroleum Hydrocarbons
tpa	tonnes per annum
VOC	Volatile Organic Compound
VRU	Vapour Recovery Unit

Executive Summary

AECOM Australia Pty Ltd (AECOM) was engaged by Cleanaway Pty Ltd (Cleanaway) to carry out an Independent Environmental Audit (IEA) of the Cleanaway Refinery located at Rutherford, New South Wales (referred to in this report as Cleanaway Rutherford).

This is the second IEA to be carried out at Rutherford facility under Project Approval 05_0037 (PA 05_0037). The first audit was required to be undertaken within one year of commencement of operations and was completed in June 2008. The recommendations and opportunities for improvement identified in the 2008 IEA have been reviewed as part of this audit to capture operational changes to Site.

This audit was directed to be carried out by the Secretary of the NSW Department of Planning and Environment (DPE) by letter dated 15 May 2017. The audit period has been defined as from the date of completion of the first audit, 11 June 2008 to 11 September 2018 (the date the IEA site visit concluded).

The audit was conducted in accordance with the requirements set out in PA 05_0037, Condition 4.4, the NSW Department of Planning and Environment (DPE) Independent Audit Post Approval Requirements June 2018, AS/NZS ISO 19011:2018 Guidelines for auditing management systems and AECOMs proposal dated 2 August 2018.

The IEA assessed compliance with relevant approvals, licences and management plans applicable to the Cleanaway Rutherford facility. Detailed compliance registers identifying audit findings, comments and recommendations are presented in Appendix A.

The IEA methodology included:

- Initial discussions with Cleanaway to organise the audit, including the provision of documentation, the site visit and timing;
- Review of documentation provided by Cleanaway and preparation of compliance assessment checklists that included a list of conditions of key regulatory approvals to be assessed for compliance;
- Two-day site inspection including review of documentation and interviews with key site personnel and contractors on 10 and 11 September 2018. The site inspection was attended by the Lead Auditor, Auditor, Auditor assistant and specialists in the areas of odour and hazard.
- Review of additional documentation provided by Cleanaway after the site inspection;
- An assessment of environmental management performance through review of; the implementation of key environmental management plans non-compliances documented in annual reporting; regulatory actions; incidents; and complaints.
- An assessment of compliance was undertaken for each condition within the selected regulatory approvals based on a review of documentation, observations during site inspections, interviews, implementation of management plans, incidents, complaints and regulatory action.
- Submission of a draft audit report to Cleanaway to provide an opportunity for additional information and / or correction of fact; and,
- Finalisation of the report.

In summary 13 non-compliances were identified against Project Approval PA05_0037 and 9 non-compliances were identified against Environment Protection Licence (EPL) 12555. It is noted a number of these non-compliances related to the unavailability of documented evidence over the 10 year audit period.

Non-compliances identified against relevant approvals and recommendations and opportunities for improvement arising from the compliance assessment and the review of the adequacy of the management plans and environmental performance are discussed in Section 8.0.

1.0 Introduction

1.1 Background

AECOM Australia Pty Ltd (AECOM) was engaged by Cleanaway Pty Ltd (Cleanaway) to carry out an Independent Environmental Audit (IEA) of the Cleanaway Refinery located at Rutherford, New South Wales (referred to in this report as Cleanaway Rutherford).

This is the second IEA to be carried out at Rutherford facility under Project Approval 05_0037 (PA 05_0037). The first audit was required to be undertaken within one year of commencement of operations and was completed in June 2008. The recommendations and opportunities for improvement identified in the 2008 IEA have been reviewed as part of this audit to capture operational changes to Site.

This audit was directed to be carried out by the Secretary of the NSW Department of Planning and Environment (DPE) by letter dated 15 May 2017. The audit period has been defined as from the date of completion of the first audit, 11 June 2008 to 11 September 2018 (the date the IEA site visit concluded).

The objective of the audit is to obtain an independent and objective assessment of the environmental performance and compliance status of the Cleanaway Rutherford facility.

1.2 Audit Scope

The audit was conducted in accordance with the requirements set out in PA 05_0037, Condition 4.4, and the NSW Department of Planning and Environment (DPE) Independent Audit Post Approval Requirements June 2018 as detailed in Table 1.

Table 1 Project Approval PA 05_0037 IEA Conditions

Condition	Requirement	IEA Reference
4.4	Within one year of the commencement of operations, and then as directed by the Secretary, the Proponent shall commission an Independent Environmental Audit of the development. This audit must: <ul style="list-style-type: none"> 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 Secretary; b) Be carried out in accordance with ISO 14010 – Guidelines and General Principles for Environmental Auditing and ISO 14011 – Procedures for Environmental Auditing, the Department's guideline Hazardous Industry Planning Advisory Paper No. 5 – Hazard Audit Guidelines; c) Assess whether the project is complying with the conditions of both this approval and the EPL for the project; d) Assess whether the project is being carried out with industry best practice; e) Review the adequacy of the Operation Environmental Management Plan for the project; compliance with the requirements of this approval, and other licences and approvals; and f) Recommend measures or actions to improve the environmental performance of the project, and/or the Operation Environmental Management Plan for the project. 	This Report Section 1.5 Appendix B Section 1.0 Appendix D Section 8.0 Appendix A Section 4.0 Section 5.2 Section 8.0 Appendix A Section 5.0 Section 8.0

Condition	Requirement	IEA Reference
4.5	Within two months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, with a response to any recommendations contained in the audit report.	Cleanaway is required to submit this report along with responses to recommendations made in this report to the DPE.

In addition to the above, the auditors also reviewed the actions taken to address the recommendations made in the previous IEA in 2008. The findings of this review are provided in Section 7.0.

1.3 Audit Methodology

The purpose of this IEA was to assess environmental performance of the project and assess compliance with the Conditions of Approval (CoA), licences and approvals that apply to the project and review the adequacy of the Operational Environmental Management Plan and associated sub-plans required under the CoA.

The IEA was undertaken in general accordance with:

- Independent Audit Post Approval Requirements, DPE, June 2018;
- AS/NZS ISO 19011:2018 Guidelines for auditing management systems¹; and
- AECOM's proposal (dated 2 August 2018).

An audit checklist was prepared prior to the site inspection, based on the requirements of PA 05_0037 and Environment Protection Licence (EPL) 12555. The completed checklist is provided in Appendix A.

The auditors assessed compliance by viewing evidence of documents associated with each aspect of the various approvals and associated plans, programs and strategies and observations made during the site inspection.

The audit methodology comprised the following activities:

- Initial discussions with Cleanaway management to organise the audit, including the provision of documentation, the Site visit and timing.
- Preparation of site compliance checklist and review of documentation provided by Cleanaway.
- A two-day site inspection and interviews with key site personnel, on 10 and 11 September 2018. Tasks undertaken during the audit site inspection included:
 - Opening meeting (refer to Appendix C)
 - Site inspection
 - Review of relevant documentation provided by Cleanaway
 - Interviews with key personnel including the Regional Manager Refineries, Site Engineer and Maintenance Supervisor.
 - Close out meeting (refer to Appendix C).
- Review of additional documentation provided by Cleanaway after the Site inspection.
- An assessment of compliance for each condition within the selected regulatory approvals based on a review of documentation, observations during site inspections, interviews, implementation of management plans, incidents, complaints and regulatory action.

¹ Note these guidelines supersede the ISO 14010 – Guidelines and General Principles for Environmental Auditing and ISO 14011 – Procedures for Environmental Auditing included in the audit condition.
\\AUSYD1FP001.AU.AECOM\NET.COM\Projects\605X\60585436\400_TECH\4.4 Reporting\03 Final Report\60585436_Cleanaway IEA
2018_Final Report_Rev0.docx
Revision 0 – 11-Nov-2018
Prepared for – Cleanaway Refiners Pty Ltd – ABN: 78 114 388 742

- An assessment of environmental management performance through review of: the implementation of the Operational Environmental Management Plan (OEMP); non-compliances documented in annual reporting; regulatory actions; incidents; and complaints.
- Submission of a Draft Report to Cleanaway to provide an opportunity for additional information and / or correction of fact.
- Finalisation of the Report based on comments/ additional information provided by Cleanaway.

This report provides a summary of findings including a discussion of the environmental performance of the site, details of identified non-compliances with the Project Approval and EPL, review of adequacy of management plans, and recommended actions to improve compliance status as well as continual improvement opportunities.

An Independent Hazard Audit was also undertaken as part of the scope of works of this audit. The Hazard Audit has been included as Appendix D. A summary of findings from the hazard audit has not been repeated in this report.

1.4 Documents Reviewed

AECOM submitted a request for documentation to Cleanaway on 30 August 2018 as part of the pre-audit preparation. A number of documents were provided for review prior to the audit and further documents provided during the course of the audit. The documents reviewed are listed as “evidence” within the Audit Checklists included as Appendix A1 and A2.

1.5 Personnel

In accordance with Condition 4.4 of PA 05_0037, the audit is to be conducted by a suitably qualified, experienced and independent audit team whose appointment has been endorsed by the Secretary. The Audit Team consisted of the following personnel listed in Table 2.

Table 2 Audit Team

Name	Position	Organisation	Onsite
Helen Onus	Lead Auditor	AECOM	10-11 September 2018
Katherine Dodd	Auditor	AECOM	10-11 September 2018
Elizabeth Gwilt	Auditor	AECOM	10-11 September 2018
David Rollings	Odour Specialist	AECOM	10 September 2018
David Lockley	Hazard Specialist	AECOM	10 September 2018

The Lead Auditor is a registered Exemplar Global auditor. In addition, the audit team, inclusive of specialists, was approved by the DPE to conduct the audit. Refer letter from DPE provided in Appendix B.

Personnel interviewed during the site visit included the following:

- Nicholas Welbourne, Engineer
- Rick Merrick, Maintenance Supervisor
- Bart Downe, Environmental Business Partner
- David Wiseman, Plant Operations Supervisor
- Scott McLeod, Regional Manager

1.6 Audit Verification Activities

The auditors undertook verification activities to confirm the reliability of audit evidence. This included interviews, data checking, the examination of records, and site inspections. Records were provided in electronic and/or hard copy by site personnel and additional documents were reviewed whilst on site.

Some aspects of the audit process may have relied on information, such as judgements and assumptions where external supporting evidence was unavailable or limited. Where this information was considered, its validity was confirmed to the extent possible prior to use by the auditors and is noted in appropriate areas of the audit checklists.

The majority of information was assessed off-site (e.g. review of management plans). The site inspections concentrated on assessment of the effectiveness of environmental management and adequacy of performance. The extent of audit activities was limited to the time available for the audit site inspections and interviews over two days.

2.0 Cleanaway Rutherford Operations

2.1 Cleanaway Rutherford Overview

Cleanaway Rutherford is an oil refinery at 41 Kyle Street, Rutherford, New South Wales and is located within the Rutherford Industrial Estate in the Maitland City Council Local Government Area (refer to Figure 1). The refinery has been operational since May 2007.

The site topography is flat and primarily devoid of any significant vegetation with the exception of some boundary tree plantings along the western boundary. A large portion of the site is undeveloped grassland with the existing facility concentrated on the western end of the site.

The nearest residential area is located in Rutherford, with the closest receptors approximately 1.3 kilometres (km) from the Site.

2.1.1 Approvals History

Cleanaway Rutherford was initially granted project approval PA 05_0037 on 4 July 2006 for the construction and operation of a resource recovery and recycling facility.

Project Approval 05_0037 was modified on four occasions between 2006 and 2018. This included the following:

- Modification 1; Construction of additional plant to improve the quality of the final waste oil product, determined 16 May 2007
- Modification 2; Modification of monitoring requirements to ensure consistency with the EPL, determined 18 October 2011
- Modification 4; replacement of the stack at monitoring point 19, determined 10 December 2014
- Modification 5; Construction and operation of new equipment (oil polishing system, multi-fuel burner, six additional oil storage tanks with total combined storage of 2.4 ML and safety and fire-fighting systems) and increase the height of the Multi-Fuel Burner Stack, to enable the facility to produce both Class I and Class II product oils, determined 9 September 2016

Modification 2 for the relocation of oil storage tanks was withdrawn. Works associated with Modification 5 had not commenced at the time of the audit.

2.1.2 Operations

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.

The site operates 24 hours a day, 7 days a week with a workforce of up to 24. Major components of the Site include:

- Hydrogenation plant
- H₂ Plant
- N₂ Plant
- Cooling towers
- Storage tanks
- Control room and office building
- Workshop
- Process store
- Truck unloading and loading bays

2.1.3 Approvals, Licences and Leases

Table 3 lists the current approvals and licences held for Cleanaway Rutherford.

Table 3 Summary of Existing Major Approvals and Licences

Title	Agency	Expiry
Project Approval 05_0037	DPE	Five years after date granted unless works are physically commenced
Environment Protection Licence 12555	EPA	Until the licence is surrendered
Trade Waste Agreement Consent No.2006-978/27	Hunter Water	16/10/2019
Hazardous Chemicals Notification Acknowledgment No. NDG037591	SafeWork NSW	Until notified of changes (Issued 13/02/15)

This audit did not assess compliance with the requirements of the Trade Waste Agreement.

Figure 1 Location of Cleanaway Rutherford (Source: MOD 5 Environmental Assessment)

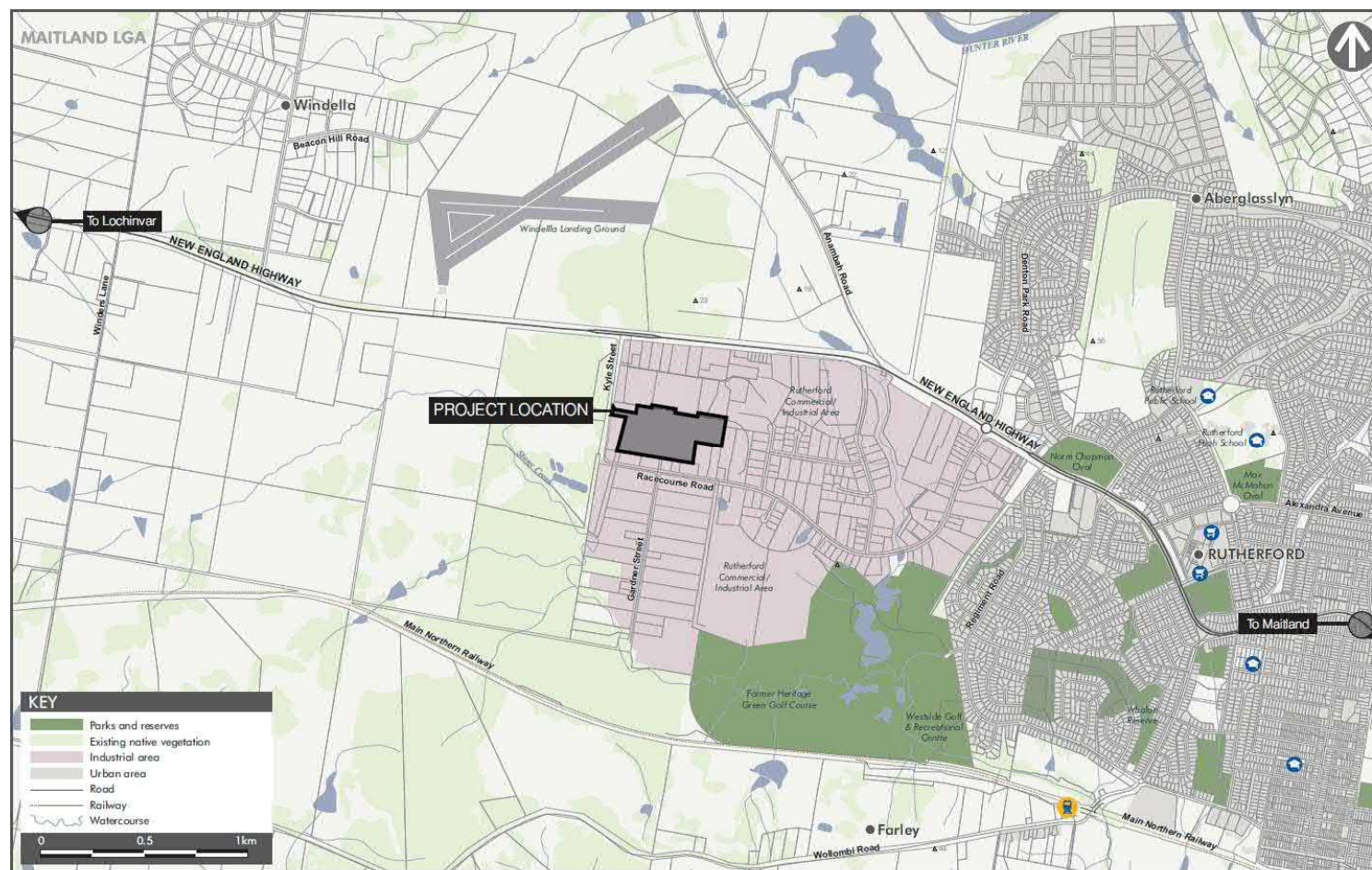
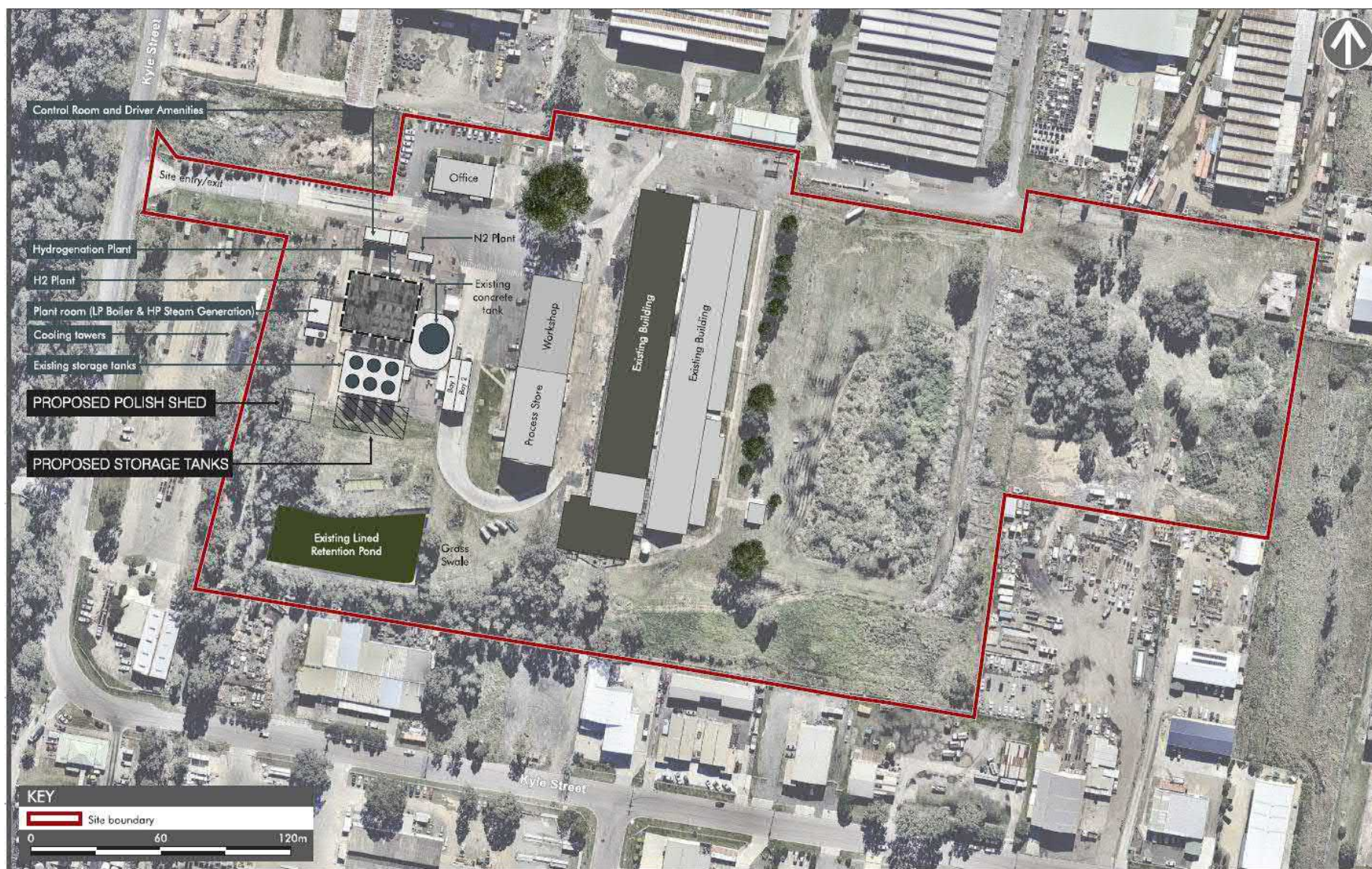


Figure 2 Cleanaway Rutherford Site Layout (Source: MOD 5 Environmental Assessment)

3.0 Site Inspection Observations

During the site inspection the weather conditions were cool in the mornings with clear sunny days.

The following photographs provide an indication of the general observations made or referenced during the site inspections as detailed in Table 4. Additional photographs are included in each of the specialist areas specific to the observations made by the specialists.

Table 4 Site Inspection Photographs

Photo #	Comment	Photo
5-1.	Reformer area of the plant.	
5-2.	Hydrogenation plant and storage tanks.	




Photo #	Comment	Photo
5-3.	Liquid nitrogen tank.	
5-4.	Emergency fire response equipment.	
5-5.	The dark sample jar is indicative of the waste oil received at the Site for refining. The pale yellow sample jars are by-product (light fuel oil) of the refining process.	




Photo #	Comment	Photo
5-6.	Sock placed around stormwater drains. Inside the drain the auditors saw pillows for absorption of contaminants.	
5-7.	Sock placed around stormwater drains. Inside the drain the auditors saw pillows for absorption of contaminants.	
5-8.	<p><i>Left picture:</i> Stormwater discharge from Site is controlled via a manual valve</p> <p><i>Right picture:</i> Stormwater from the Site is discharged to Stony Creek (in the distance of the photo) via the stormwater pit.</p>	

Photo #	Comment	Photo
5-9.	An example of the concrete bunding around the process plant.	
5-10.	Damage to the upper portion of the western bund wall within the Tank Farm.	
5-11.	<p>Waste oil IBC on banded pallet sitting above the bund making it possible for a spill outside of bund.</p> <p>2018 IEA OFI 01</p> <p><i>Review the waste oil IBC storage arrangement to ensure the banded pallet does not overhang the perimeter bunding.</i></p>	

Photo #	Comment	Photo
5-12.	IBCs stored correctly within the bunded area.	
5-13.	Bunding of chemicals in the plant room.	

Photo #	Comment	Photo
5-14.	IBC Spill Deflection Sheeting on IBCs.	
5-15.	<p>The bottom of spill deflection sheeting for Sodium Hydroxide IBCs located at Depot 2A adjacent the western perimeter bund wall in the Fractionation Plant ends above the top surface of the process area perimeter bund, which makes it possible for a spill to travel to the outside of the bund.</p> <p>2018 IEA OFI 02</p> <p><i>Review the Sodium hydroxide sheeting to ensure it does not result in potential spills exiting the bunded area.</i></p>	


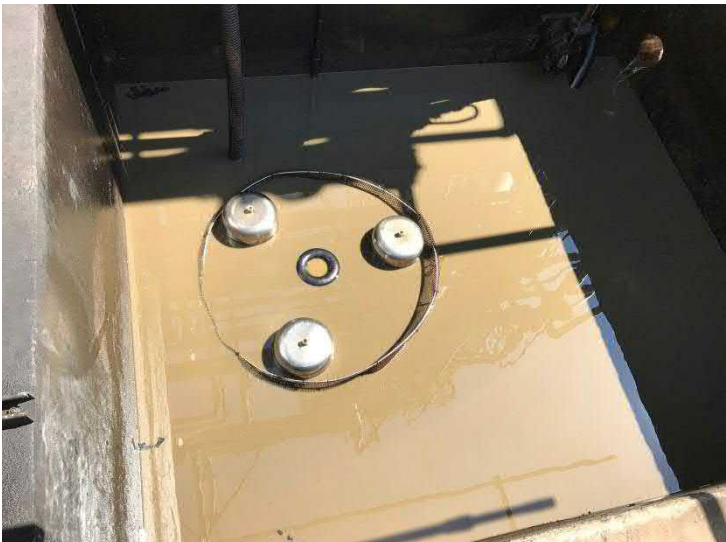
Photo #	Comment	Photo
5-16.	<p>Degradation of the concrete bund floor due to acidic stack gas condensate. The site reported that this was a result of a flaw in the stack internal coating during its manufacture (related to MOD 4). This coating flaw resulted in a failure of the stack condensate drainage pipework, and subsequently a minor condensate flow along the concrete to the interceptor pit drain in 2015.</p> <p>Repairs to the protective coating later in 2015 resolved the issue and restored the integrity of the condensate drainage system.</p> <p>The condensate drained to the interceptor pits which are pumped through the oil water separator to the balance tank prior to discharge to sewer under a Tradewaste Agreement with Hunter Water. It was reported that prior to discharge, wastewater is pH tested and that pH levels were within the specified range.</p>	
5-17.	<p>Runoff within the banded area is directed to interceptor pits which are pumped to an oily water separator (puraceptor).</p>	




Photo #	Comment	Photo
5-18.	Truck unloading panel at the truck unloading/loading bay.	
5-19.	Truck unloading bay.	
5-20.	Process store (also called the Dangerous Goods Store) includes a Spent Carbon storage area.	



Photo #	Comment	Photo
5-21.	Process store with full IBCs stored within bunded area on left of photo. The drums in the right of the photo were empty.	
5-22.	The workshop.	



Photo #	Comment	Photo
5-23.	Storage of flammable liquids in designated storage cabinet within workshop.	
5-24.	<p>Stockpiles of scrap metal, timber and other bulky waste in the vacant areas of the Site.</p> <p>2018 IEA OFI 03</p> <p><i>Consider removing the dumped waste inherited from the previous owners located at the back of the property near the former dye and finishing warehouse. During this process separate the waste identified for recycling where possible.</i></p>	




Photo #	Comment	Photo
5-25.	Remnant 4 vegetation area as described in the EAR. The area was fenced. The auditors did not see evidence that the area had been disturbed.	
5-26.	Remnant 3 vegetation area as described in the EAR. The area was fenced. The auditors did not see evidence that the area had been disturbed.	
5-27.	Sign located at the entrance to the facility. As discussed in CoA 6.2 this phone number advertised was not operational at the time of the audit.	

Photo #	Comment	Photo
5-28.	During the site inspection, Cleanaway temporarily covered the number with the Cleanaway company-wide 1800 information number.	
5-29.	Shipping containers housing spent catalyst. The spent catalyst was relocated from the Process Store to the shipping containers during the audit period to meet the requirements for separation distances to a workspace (workshop).	
5-30.	Weather station on top of the control room roof.	

4.0 Environmental Performance

This section assesses the requirement of the scope of works to “*assess the environmental performance of the development*”. It includes a review of incidents and complaints.

The auditors based the assessment of the environmental performance of Cleanaway Rutherford on the following:

- Assessment of implementation of management and monitoring plans described in Section 5.0
- Assessment of compliance with the PA 05_0037 and EPL 12555. The findings of this assessment are provided in the Compliance Matrix presented in **Appendix A** with the identified non-compliances and associated recommendations summarised in Section 7.0
- Review of incidents reported during Site activities during the audit period (Section 4.1)
- Review of complaints received by Cleanaway Rutherford during the audit period (Section 4.2)

4.1 Incident Management

Management of incidents is outlined in the Site Emergency Management Plan and the Pollution Incident Response Management Plan (PIRMP).

Prior to 2010 the Site used the National Integrated Management System (NIMS) to record incidents. In 2010 Cleanaway introduced the Vault system to track and manage incidents. The Site provided a download of incidents recorded in the Vault system from July 2010 to the September 2018. A review of this extract indicated information including the following was being recorded: incident date, time, type (incident, injury, near miss), category (various), findings of investigation, corrective actions, incident status, incident reportable (Y/N), external authority notified (Y/N) and a number of other fields relevant to safety incidents. There was no incident type for environmental incident however there was under ‘incident category’ which also included the following categories with environmental impacts: contamination, airborne release, spill, water discharge and odour.

The auditors reviewed the incidents recorded since July 2010 and summarised the environmental incidents into the following categories (Table 5).

Table 5 Summary of Environmental Incidents from July 2010 to September 2011

	Air Quality	Asbestos	Spills	Water
Year	No. of Incidents			
2010	1	-	1	-
2011	4	-	4	-
2012	2	-	5	1
2013	-	1	2	-
2014	2	-	2	-
2015	1	-	5	-
2016	-	-	5	1
2017	-	-	3	-
2018	-	-	2	-
TOTAL	10	1	29	2

As can be seen, the majority of incidents recorded related to spills / leaks. Four of these were classified by Cleanaway as “minor” with the remainder classified as “insignificant”. The majority of the insignificant spills related to leaks which were contained within the bunded area. Incidents that occurred outside the bunded area (but still on-site) were reported to have been promptly cleaned up. Only one incident was reported as an off-site spill. This incident, recorded in January 2017, related to

a minor loss of oil (believed to be less than 2L) from a truck onto the road soon after it had departed the site. The spill was cleaned with spill mats and the truck returned to site to be cleaned.

The review of the incidents which were flagged as “External Authority Notified” indicated these were classified as minor or insignificant and mostly related to air quality exceedances of EPL limits.

2018 IEA OFI 04

Improve the categorisation of environmental incidents within the Vault to facilitate easier review and trend analysis of environmental incidents. Consider creating an incident category for “Environment” and provide guidance for how to categorise the incident type.

4.1.1 Reportable Incidents

The site reported to the auditors that no reportable incidents occurred during the audit period which would require a detailed report to be provided to DPE and/or the EPA in accordance with the requirements of the Project Approval 05_0037 and EPL 12555.

4.1.2 Regulatory Action

The Site reported that it received the following warning letters from the EPA during the audit period:

- Letter from EPA, dated 27.04.10, Warning – ‘*Exceed hydrogen sulphide emission limit at Point 19 and 22 December 2009*’. The letter stated that given the hydrogen sulphide at Point 19 on 22 December 2009 was only marginally above the licence limit, DECCW (now EPA) has decided to deal with this breach of condition L3.1 of EPL 12555 by issuing a warning.

As discussed in Section 6.0, the Site made modifications to process to address emissions from Point 19. No exceedances of the EPL concentration limits have been reported for air emissions since November 2013.

4.2 Complaint Management

The Site has a Complaints Procedure, dated 6 October 2006. The procedure was prepared to outline the process for managing complaints received from employees, visitors, regulatory agencies and the public in relation to activities at the Site. The procedure includes operation of a community complaints 24-hour telephone number 1800 158 447 which receives complaints from members of the public.

The Site provided the following documents which detailed complaints received during the audit period:

- a copy of an excel spreadsheet titled ‘*TPR Complaints Register*’. No complaints were logged in this register since 2007. The Site reported that no complaints were received directly by Cleanaway via their public complaints telephone number since this time. Site reported that complaints are now managed in the Vault and this register is now longer maintained.
- a ‘*Site Odour Complaints Register 2008-2015*’ spreadsheet which detailed the complaints / enquiries received via the EPA related to the Rutherford Industrial Estate for Cleanaway to investigate. The Site reported that no complaints/enquiries have been received from the EPA since 2015. Cleanaway reported that the complaints investigated could not be attributed to Cleanaway Rutherford activities.
- complaints are logged in the incident management system, the ‘*Vault*’. It was reported that complaints that require corrective actions are logged in the Vault to facilitate tracking and close out. An extract of all incidents recorded for the audit period was reviewed by the auditors. An incident category titled ‘complaint’ was observed for enquiries received by the EPA. Corrective actions were recorded for investigating and responding to the EPA. It was noted that not all complaints received from the EPA in the ‘*Site Odour Complaints Register 2008-2015*’ were recorded in the Vault.

A summary of the complaints received from the EPA for the Rutherford Industrial Estate recorded by Cleanaway Rutherford for the period 11 June 2008 to 11 September 2018 is provided in Table 6 below.

Table 6 Summary of Complaints received by the EPA for the Rutherford Industrial Estate and Investigated by Cleanaway between 11 June 2008 and 11 September 2018

Category	Year	No. of Complaints
Odour	2008	102
	2009	73
	2010	2
	2011	0
	2012	1
	2013	0
	2014	28
	2015	5
	2016	0
	2017	0
	2018	0
Total Complaints Recorded*		211

* Between period June 2008 – 11.09.2018

As can be seen all complaints received via the EPA for the Rutherford Industrial Estate related to odour. In each of the above instances, Cleanaway provided the EPA with details of the operation of the plant and the wind direction at the time of the complaint. No further requests or follow up action was received from the EPA which led Cleanaway to believe that the complaints were not related to its activities. As indicated in Table 6, no complaints or enquiries have been received since 2015. Cleanaway indicated that this correlates with the closure of the neighbouring Trugain waste oil facility in 2016.

5.0 Environmental Management

To assess whether the project is undertaken in accordance with industry best practice, the relevant environmental management plans and associated environmental monitoring reports were reviewed.

Information gathered from the site inspection and audit interviews was combined with the above review to enable a complete assessment against relevant conditions in Appendix A. In addition, odour has been assessed by an air quality specialist (Section 6.1) and a separate hazard audit has been completed (Appendix D).

The assessment of the effectiveness of environmental management at Cleanaway Rutherford was undertaken by reviewing the environmental management plans referenced in the Project Approval and assessing the effectiveness of their implementation during the audit site inspection and audit interviews.

5.1 Review of Management Plans

Cleanaway Rutherford operates in accordance with the Cleanaway wide Environmental Management System. This group wide Environmental Management System is certified to international standard ISO14001.

Controls measures for environmental management of Cleanaway Rutherford are outlined in the site environmental management plans. Cleanaway's Project Approval 05_0037 requires the following management plans to be developed and implemented.

- Operational Environment Management Plan (OEMP)
- Groundwater Management Plan (GMP)
- Air Quality Management Plan (AQMP)

In accordance with Condition 4.4(e), of PA 05_0037 this audit has conducted a review of the adequacy of each plan listed above. Results of the adequacy review are summarised in the sections below. The AQMP was reviewed by the odour specialist and is included in Section 6.0.

5.2 Operational Environment Management Plan

Condition 3.5 of PA 05_0037 requires an OEMP to be developed, prior to commencement of operations. An OEMP was prepared in 2007. The OEMP has not been updated since this time and contains out of date information.

A review of the OEMP identified that not all of the requirements of Condition 3.5, have been met. In addition, the OEMP was considered to be difficult to navigate and not very user-friendly which may have implications on its implementation. The auditors have identified a number of areas where the OEMP can be further developed to improve its adequacy.

2018 IEA REC 01

It is recommended that the OEMP is revised to consider the following:

- *Replace Transpacific with Cleanaway*
- *Update the address to 41 Kyle Street rather than the redundant 11 Kyle Street address*
- *Include a brief overview of the site operations to provide some context*
- *Update the OEMP with the current statutory and other obligations. The Project Approval has been modified and the EPL varied a number of times since 2007. The OEMP does not clearly list these approvals and licences or others including the Trade Waste Agreement or Dangerous Goods Notification*
- *Include reference to PA 05_0037, Condition 3.5 in the 'Purpose and Scope' section of the OEMP*

- *The Table included in Section 4.0 Development Approval Condition, which outlines the requirement of Condition 3.5 and where it is addressed will be more useful in the Scope section.*
- *Update the Compliance Management Statutory Register (Appendix 2)*
- *Update the Roles and Responsibilities to include the Environmental Representative required by CoA 3.1*
- *Review and update the performance measures required / implemented to ensure they reflect current practices and requirements*
- *Details of landscaping undertaken on site are not contained within the OEMP, but outlined in the CEMP and Vegetation Management Plan (VMP), both of which have not been sighted and are no longer relevant / implemented. Include relevant landscaping information of from the CEMP and Vegetation Management Plan in the OEMP*
- *Include details of contingency measures for adverse environmental impacts which are not currently outlined in the OEMP, but have been outlined in the GMP, AQMP and Site Emergency Management Plan*
- *Update references to referenced documents, for example the Environmental Policy was reviewed on 1 May 2018 however the OEMP includes a superseded version of the Policy from 2006*
- *Update Section 3.0 Environmental Management to ensure it reflects regulatory requirements, and current practices*
- *Specify a sampling regime for assessing surface water quality against the objectives provided in Statement of Commitment 27A*
- *Include a clearer figure which shows the as the Site Plan*

Following updating of the OEMP, a copy of the OEMP should be provided to the DPE, EPA and Council.

5.3 Groundwater Management Plan

Condition 3.5 (c) of PA 05_0037 requires a GMP to be developed, prior to commencement of operations. The GMP is a sub-plan to the OEMP. A GMP was prepared in 2007 and was most recently updated on 15.08.17.

The GMP states that it has been prepared to meet the requirements of the EPL. The auditors have reviewed the 2017 GMP against the requirements of Condition 3.5(c) and consider that it does not adequately address the requirements of the PA 05_0037 and EPL. The auditors have identified a number of areas where the GMP can be further developed to improve its adequacy.

2018 IEA REC 02

It is recommended that the GMP is revised to consider the following:

- *Update the address to 41 Kyle Street rather than the redundant 11 Kyle Street address in Table 2.1.*
- *Update the GMP to include a section detailing the baseline groundwater quality prior to commencement of construction.*
- *The plan does not reference the monitoring requirements of EPL 12555. Though the monitoring requirements outlined in the plan are consistent with the EPL, it is recommended that the plan refer to the actual requirements of the EPL. For example, making specific reference to Condition M2.3, including the monitoring location description and EPA identification number provided in Condition P1.3 and referencing the requirement to not cause pollution of waters as per Condition L1.1*
- *Table 3.1 provides groundwater assessment criteria for a number of pollutants however Cleanaway is only monitoring for Perchloroethene /Tetrachloroethne (PCE), and Total petroleum hydrocarbons (TPH) as required by its EPL. The plan should include discussion of the relevance of the criteria identified for the other contaminants.*
- *There is no discussion in the plan on how the monitoring data will be reviewed / analysed for trends to identify if site activities are having an adverse effect on groundwater quality.*
- *The plan does not detail any contingency measures and management options should monitoring of groundwater quality indicate the development has had or is having an adverse effect on groundwater quality.*
- *Evidence of consultation with EPA (formerly Department of Environment and Climate (DEC)) and NSW Office of Water (formerly DNR) was not sighted by the auditors. The GMP should include discussion of the consultation undertaken with the relevant agencies. For transparency the consultation could be included as an Appendix.*
- *The plan does not detail requirements for reporting.*

6.0 Specialist Areas

This section addresses the specialist area of odour, as required by Condition 4.4, Project Approval 05_0037. The specialist area of hazard is included as a stand-alone report in Appendix D.

6.1 Odour Management

A site inspection was undertaken on 10 September 2018 and included an inspection of the following site areas:

- Facility control room
- Boiler room
- Hydrogen Reformer area
- Hydrogenation plant area
- Feedstock and product storage area
- Product loading and feedstock unloading area
- Storage and maintenance area
- Laboratory

Photos taken during the inspection and their relevance to the management of air quality have been provided below in Section 6.1.1.

Air quality during the inspection was found to be good with only minor odours noted during the inspection, which were localised to areas on-site close to the source of the odours. At the time of the site inspection, Cleanaway was in the process of changing over one of the feed tanks as a product tank. No off-site odours were detected during the site inspection.

Air quality at Cleanaway Rutherford is managed through the implementation of an AQMP which outlines the requirement for testing and management of the various sources on the site.

The AQMP was prepared in 2007 and has not been updated since this time. There are a number of sources and changes to the plant that have occurred since this time that have been controlled in an appropriate manner, but that are not reflected in a revision to the AQMP. The major recommendation to this audit is to revise the AQMP to reflect current facility operations and incorporate the additional controls that have been implemented since 2007.

Figure 3 Overview of air quality discharge points (Source: Assured Monitoring Group, 2017)



Figure 1: Overview of site and location of discharge points

6.1.1 Odour Site Observations

The following photographs provide an indication of the observations made or referenced by the odour specialist during the site inspections as detailed in Table 7.

Table 7 Site Inspection Photographs – Odour Specialist

Photo #	Comment	Photo
8-1.	Control room computer screen. These screens showed the air quality monitoring system operational at the time of the inspection.	

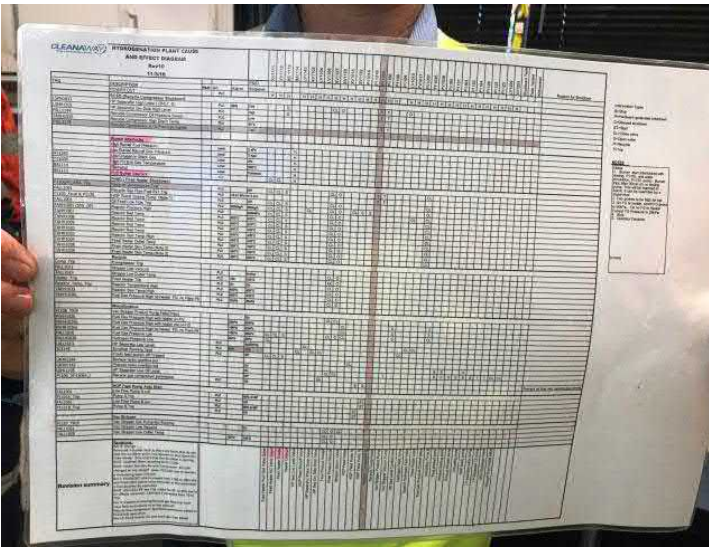

Photo #	Comment	Photo
8-2.	Interlock spreadsheet. This showed the interlock list which included the scrubber operation for the emission sources on the site.	
8-3.	Reformer stack (EPA Licensed Discharge Point No.20) and fired heater stacks (LDP19).	

Photo #	Comment	Photo
8-4.	Boiler room stack exhausts (LDP2 and LDP3).	
8-5.	Light end scrubber (Vapour Recovery Unit - VRU) stack (LDP5). The stack sampling points are close to the exit point of the stack. 2018 IEA REC 03 <i>Review the location of the stack sampling points for adequacy.</i>	
8-6.	VRU system (foreground) and activated charcoal system in background.	

Photo #	Comment	Photo
8-7.	Product storage tanks with nitrogen blanketing pipework shown.	
8-8.	Activated charcoal scrubbing system.	
8-9.	Activated charcoal scrubbing system.	




Photo #	Comment	Photo
8-10.	H ₂ S Monitoring units used predominantly for worker health protection but also serving as an early warning of elevated H ₂ S concentrations on the site.	
8-11.	Stack monitoring locations on the fired heater stack (LDP19). Monitoring locations at 90° to one another and are position correctly.	
8-12.	Truck loading fume capture equipment.	

Photo #	Comment	Photo
8-13.	Spent carbon drums stored in the Process Store.	

6.1.2 Summary of Effectiveness of Odour Management

Despite the AQMP not including VRU, air quality is handled well on site with the following observations made:

- Stack emission testing has been undertaken regularly in accordance with requirements of the EPL. This testing showed that there has been a gradual improvement in emissions since 2008. There were a range of non-compliances that occurred between 2008 and 2013 which were resolved through modification to plant, EPL conditions and sampling methods. Since the modification to the EPL sampling method and the EPL conditions, there have been no exceedances of the EPL limits.
- The recognition of the inadequacies of the VRU and the implementation of a carbon scrubbing system has been effective in the minimisation of Volatile Organic Compound (VOC) emissions from the light end collection system.
- Stack sampling positions are well located on all stacks, with the exception of the VRU which may be too close to the exit (refer Photo 8-5).
- Monitoring of the performance of the scrubbers through the control room ensures the scrubber operations are regularly monitored and in operation.
- The flare register collects data on the time when flaring occurred, the reason for the flaring and duration of the flaring.
- Nitrogen blanketing in the product tanks.

Monitoring of on-site H₂S concentrations is undertaken using continuous H₂S meters positioned in a number of locations across the site. Whilst these are ostensibly targeted at worker health protection, they also provide an early warning of elevated H₂S concentration on the site. These meters are all linked to the control room and are connected to an alarm if triggered.

6.1.3 Air Quality Management Plan Adequacy Review

The AQMP for the facility was prepared in 2007 and was based around the plant configuration and operational procedures at the time of the documents preparation. Generally the AQMP refers to the major components on the facility and outlines appropriate management strategies for the minimisation of emissions of air pollution from the site.

During the inspection of the site, the following areas were identified which were not covered by the AQMP as follows:

- The VRU (VOC wet scrubber) treating emissions from the light end fume collection system are not included in the AQMP. This scrubber was found in the early days of the plants operation to be ineffective in the reduction of VOC's from the process tank vent relief system prior to emission from the plant. To ensure this gas stream was treated appropriately, a carbon scrubber has been installed upstream of the wet scrubber to ensure the capture of VOC's and H₂S prior to the gas stream reaching the wet scrubber. This carbon scrubbing system is also not included in the AQMP as it was installed after the preparation of the AQMP. Points of note about the operation of the carbon scrubber are as follows:
 - There are three carbon drums positioned in series receiving VOC and H₂S contaminated process air.
 - Process lines are regularly tested to enable the effectiveness of each of the individual charcoal drums.
 - When the middle drum show signs of breakthrough, the lead drum is replaced and the remaining two drums moved through with the new drum being placed as the tail drum.
 - The drums are all prepared on site and have been prepared in a manner to ensure they are waterproof and airtight. The drums are pressure tested prior to use to ensure there are no leaks from the system.
- The testing for the Fired Heater underwent a range of studies between 2008 and 2012 to identify the reason for the elevated Total Particulate (TP) and acid mist concentrations observed in the stack tests. The result of these studies and discussions with EPA resulted in modification to the EPL to include a higher TP limit and a modified sampling method aimed at collecting a more representative sample of TP and Acid Mist. Since the adoption of the modified methods and limits, there have not been any exceedances of any EPL limits in any stack test since 2013.

Given the lack of coverage of all areas and activities on the site, the overall conclusion is that the AQMP is not adequate to control air emissions at the site. It should be noted that although the AQMP is not considered adequate, the site operations have evolved to include a range of measures that are appropriate and are controlling emissions to an appropriate extent.

2018 IEA REC 04

The existing AQMP needs to be updated to reflect the ongoing improvements and changes to the monitoring and management of air pollutants from the site since it was prepared in 2007.

This update should include a schedule for regular updates of the plan following any major modification to any of the air pollution control equipment or infrastructure, or a period of time (whichever occurs first).

7.0 Actions from the 2008 Independent Environmental Audit

Table 8 includes a discussion of the actions arising from the 2008 IEA and the progress outcomes of each action.

Table 8 2008 IEA Recommendations

2008 Ref	Aspect & Condition	Recommendation	Status (2018)
1	Groundwater CoA 2.18 and EPL U3.1	Improvement recommended It is recommended that Cleanaway consider updating the GMP to reflect groundwater contamination investigation reporting findings and DPE/EPA comments once received. It is also recommended that Cleanaway undertake further studies and works, as recommended in the aforementioned report.	Closed Refer to Appendix A for an assessment of CoA 2.18. It is noted that EPL Condition U3.1 was removed from the EPL in EPL Variation dated 30.08.10, stating a report dated 8.07.08 was submitted that fulfilled the requirements of EPL Condition U3.
2	Storage of Dangerous Goods CoA 2.24	Non-compliance Cleanaway have identified the storage of Caustic Soda (NaOH) as an issue and have taken steps to rectify the non-compliance by engaging a consultant to assess dangerous goods storage. It is recommended that Cleanaway ensure that an adequate storage depot and appropriate bunding for dangerous goods is provided in the near future.	Closed At the time of the audit inspection sodium hydroxide was stored in two IBCs within the bunded area. Refer to photo 5-14 and OFI 02
3	Environmental Monitoring – Frequency & Method CoA 3.2 and EPL M2.1	Non-compliance It is recommended that Cleanaway ensure that future emission testing and groundwater testing occurs as per frequency required. In regard to sampling method, Cleanaway should ensure that all sampling methods are correctly quoted in future Emissions Testing Reports.	Closed Refer to Appendix A for an assessment of CoA 3.2 and EPL M2.1
4	OEMP CoA 3.5	Improvement Recommended It is recommended that Cleanaway send the OEMP to EPA and Maitland City Council.	Open Refer to Appendix A for an assessment of CoA 3.5.
5	AQMP CoA 3.6(a)	Improvement Recommended It is recommended that Cleanaway amend the AQMP in the OEMP to include required details in regards to odour management and odour mitigation methods and in particular demonstrate that these measures are consistent with industry best practice.	Open Refer to Appendix A for an assessment of CoA 3.6.

2008 Ref	Aspect & Condition	Recommendation	Status (2018)
6	Compliance Reporting CoA 2.18, 4.2 and EPL U1.1 and U3.1	Non-compliance In order to assess and maintain future compliance and in particular, meet regulatory compliance reporting deadlines to regulatory agencies, it is recommended that Cleanaway consider the use of the Audit Protocols developed by ENSR Australia to undertake an internal audit program to assess compliance regularly. The internal audit program could be incorporated into an existing schedule to complement the ISO 14001 systems in place.	Closed Cleanaway does not undertake an internal audit program however an annual review of compliance is included within the AEMR.
7	Storage of Waste & Materials EPL O6.2	Non-Compliance It is recommended Cleanaway segregate all waste and materials and store within appropriate bunding.	Closed Cleanaway has implemented a number of improvements to its material storage and bunding since the previous audit. A number of further recommendations relating to bunding are included within this IEA. Refer to CoA 2.24.

8.0 Compliance Summary and Recommendations

Recommendations and opportunities for improvement relating to observations of general environmental management and the adequacy of the various plans / programs are summarised in Table 9.

Table 9 Summary of recommendations relating to management plans, site observations and previous IEA recommendations

Source	#	Recommendation / Opportunity for Improvement
Operational Environmental Management Plan	2018 IEA REC 01	<p>It is recommended that the OEMP is revised to consider the following:</p> <ul style="list-style-type: none"> • Replace Transpacific with Cleanaway • Update the address to 41 Kyle Street rather than the redundant 11 Kyle Street address • Include a brief overview of the site operations to provide some context • Update the OEMP with the current statutory and other obligations. The Project Approval has been modified and the EPL varied a number of times since 2007. The OEMP does not clearly list these approvals and licences or others including the Trade Waste Agreement or Dangerous Goods Notification • Include reference to PA 05_0037, Condition 3.5 in the 'Purpose and Scope' section of the OEMP • The Table included in Section 4.0 Development Approval Condition, which outlines the requirement of Condition 3.5 and where it is addressed will be more useful in the Scope section • Update the Compliance Management Statutory Register • Update the Roles and Responsibilities to include the Environmental Representative required by CoA 3.1 • Review and update the performance measures required / implemented to ensure they reflect current practices and requirements • Details of landscaping undertaken on site are not contained within the OEMP, but outlined in the CEMP and Vegetation Management Plan (VMP), both of which have not been sighted and are no longer relevant / implemented. Include relevant landscaping information of from the CEMP and VMP in the OEMP • Include details of contingency measures for adverse environmental impacts which are not currently outlined in the OEMP, but have been outlined in the GMP, AQMP and Site Emergency Management Plan • Update references to referenced documents, for example the Environmental Policy was reviewed on 1 May 2018 however the OEMP includes a superseded version of the Policy from 2006 • Update Section 3.0 Environmental Management to ensure it reflects regulatory requirements and current practices • Specify a sampling regime for assessing surface water quality against the objectives provided in SOC 27A • Include a clearer figure which shows the as the Site Plan <p>A copy of the updated OEMP should be provided to the DPE, EPA and Council.</p>

Source	#	Recommendation / Opportunity for Improvement
Groundwater Management Plan	2018 IEA REC 02	<p>It is recommended that the GMP is revised to consider the following:</p> <ul style="list-style-type: none"> • Update the address to 41 Kyle Street rather than the redundant 11 Kyle Street address in Table 2.1 • Update the GMP to include a section detailing the baseline groundwater quality prior to commencement of construction • The plan does not reference the monitoring requirements of EPL 12555. Though the monitoring requirements outlined in the plan are consistent with the EPL, it is recommended that the plan refer to the actual requirements of the EPL. For example, making specific reference to Condition M2.3, including the monitoring location description and EPA identification number provided in Condition P1.3 and referencing the requirement to not cause pollution of waters as per Condition L1.1 • Table 3.1 provides groundwater assessment criteria for a number of pollutants however Cleanaway is only monitoring for Perchloroethene /Tetrachloroethne (PCE), and Total petroleum hydrocarbons (TPH) as required by its EPL. The plan should include discussion of the relevance of the criteria identified for the other contaminants • There is no discussion in the plan on how the monitoring data will be reviewed / analysed for trends to identify if site activities are having an adverse effect on groundwater quality • The plan does not detail any contingency measures and management options should monitoring of groundwater quality indicate the development has had or is having an adverse effect on groundwater quality • Evidence of consultation with EPA (formerly Department of Environment and Climate (DEC)) and NSW Office of Water (formerly DNR) was not sighted by the auditors. The GMP should include discussion of the consultation undertaken with the relevant agencies. For transparency the consultation could be included as an Appendix • The plan does not detail requirements for reporting
Air Quality Observation 8.5	2018 IEA REC 03	Review the location of the stack sampling points for adequacy.
Air Quality Management Plan	2018 IEA REC 04	<p>The existing AQMP needs to be updated to reflect the ongoing improvements and changes to the monitoring and management of air pollutants from the site since it was prepared in 2007.</p> <p>This update should include a schedule for regular updates of the plan following any major modification to any of the air pollution control equipment or infrastructure, or a period of time (whichever occurs first).</p>
Site Observation 5.11	2018 IEA OFI 01	Review the waste oil IBC storage arrangement to ensure the bunded pallet does not overhang the perimeter bunding.

Source	#	Recommendation / Opportunity for Improvement
Site Observation 5.15	2018 IEA OFI 02	Review the Sodium hydroxide sheeting to ensure it does not result in potential spills exiting the bunded area.
Site Observation 5.24	2018 IEA OFI 03	Consider removing the dumped waste inherited from the previous owners located at the back of the property near the former dye and finishing warehouse. During this process separate the waste identified for recycling where possible.
Incident Management	2018 IEA OFI 04	Improve the categorisation of environmental incidents within the Vault to facilitate easier review and trend analysis of environmental incidents. Consider creating an incident category for "Environment" and provide guidance for how to categorise the incident type.

The findings of the IEA compliance assessment for conditions within the Project Approval 05_0037 and EPL 12555 are presented below.

The compliance status was assessed by application of the criteria generally in accordance with the Independent Audit Post Approval Requirements (DPE, June 2018) provided in Table 10 below.

Table 10 Compliance Performance Categories

Performance Category	Definition
Compliant	The auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirement have been complied with within the scope of the audit.
Non-Compliant	The auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
Not Triggered	A requirement has an activation or timing trigger that has not been met at the time when the audit is undertaken, therefore an assessment of compliance is not relevant.
Closed out	The requirement has been completed and assessed during a previous IEA. There are no ongoing requirements associated with the Condition.

Comments are listed beside each condition to explain aspects of the audit review.

The non-compliances and corresponding recommendations are summarised in Non-Compliant Conditions in Table 11 and Table 12 and detailed in Appendix A. Opportunities for improvement are summarised in Table 13.

8.1 Non-Compliant Conditions

8.1.1 Project Approval 05_0037

Table 11 Summary of Non-Compliances against Project Approval 05_0037

Reference	Condition Requirement Summary	Audit Finding and Recommendation
1.1	<p>The proponent shall carry out the project generally in accordance with the:</p> <ul style="list-style-type: none"> (a) EAR as amended by the preferred project report (<i>Resource Recovery and Recycling Facility, Rutherford – Preferred Project Report</i>) prepared by Parsons Brinckerhoff Australia Pty Lt, dated May 2006 (b) statement of commitments, prepared by Parsons Brinckerhoff Australia Pty Ltd, and dated 19 May 2006; and (c) Modification application titled Environmental Assessment for Transpacific Refiners, Modifications to Existing Development prepared by Transpacific Industries Pty Ltd., dated 12 April 2007; (d) Modification application titled Streamlining the Project Approval for the Construction and Operation of a Resource Recovery and Recycling Facility prepared by Transpacific Industries Pty Ltd and dated 7 July 2011; (e) MOD 4; (f) MOD 5; and <p>Conditions of this approval.</p>	<ul style="list-style-type: none"> a. During the site inspection the Site was observed to be generally operating in accordance with the EAR as amended by the Preferred Project Report however the following activities as approved under 05_0037 were not being undertaken: <ul style="list-style-type: none"> - A truck wash bay and transport vehicle depot with ancillary waste water recycling plant - An industrial cleaning depot and environmental recovery services depot. <p>It is noted that in Modification Application dated 7 July 2011 the Site identified that these facilities were not installed and are no longer required.</p> b. The auditors completed a high level review of the Statement of Commitments (SOC) and found the Site is operating in general accordance with them. The SOC includes a number of requirements which relate to the original project which are no longer relevant under the Preferred Project. The Site currently conducts a review against the SOC in the Annual Environmental Management Report (AEMR). c. MOD 1 approved the continued use of infrastructure not previously approved in the original project approval. d. Under the Modification Application dated 7.07.11 the Site requested streamlining of the monitoring requirements within the Project Approval with the EPL. The Site has generally applied the requirements to undertake environmental monitoring in accordance with this Modification. Monitoring requirements have been assessed against the CoA and EPL. e. MOD 4 granted approval for the replacement of a stack at the Site. The stack had been replaced at the time of the audit. The Site provided drawings of the stack which identified that the stack was 25 m in height as per the Modification Application. f. At the time of the audit the works proposed under MOD 5 had not commenced. g. The conditions of this approval have been assessed below. <p>The Site has operated in general accordance with the activities described in the environmental assessments discussed above. This condition has been assessed as non-compliant as the Site has not operated in accordance with all the requirements included within this approval.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
2.6	The Proponent shall design, operate and maintain the project in a manner that would achieve emissions compliance with the EPL. The Proponent must advise the Department of any variations to the EPL as approved by EPA.	<p>Refer to assessment of compliance with EPL air quality criteria. Stack testing records show compliance with EPL conditions since 2013.</p> <p>Prior to 2014 there were a number of non-compliances and on this basis this condition has been assessed as non-compliant. It is noted that Cleanaway has implemented a number of improvements which have resulted in improved air quality since this time and therefore no further recommendations are considered necessary.</p>
2.27	<p>To enforce the nominated B-Double route, as conditioned in condition 2.26, the Proponent shall implement a Transport Code of Conduct for the project.</p> <p>The Applicant shall not commence operations until the Secretary has approved the Transport Code of Conduct. The Code shall be incorporated into the Operational Environmental Management Plan for the development (refer to condition 3.5 and condition 3.6 of this consent).</p>	<p>The 2008 IEA identified that the Transport Code of Conduct was submitted to the Secretary in a letter dated 26.09.2006. Approval from the Secretary was not sighted.</p> <p>The 2008 IEA reviewed the content of the Transport Code therefore a detailed review of the Code has not been assessed as part of this audit.</p> <p>Evidence of implementation of the Transport Code of Conduct was not available for review in this 2018 IEA.</p> <p>The Transport Code of Conduct is referred to in Section 4.2 of the OEMP however the Code has not been attached or repeated within the OEMP document.</p> <p>This condition has been assessed as technically non-compliant as the Site was not able to provide evidence of approval of the Transport Code of Conduct by the Secretary and evidence that it was implemented during the audit period. It is noted however that the B-Double access route is no longer restricted since the upgrade of the New England Highway and Kyle Street intersection upgrade in 2015.</p> <p>2018 IEA REC 06</p> <p>Update the OEMP to discuss the relevance of the Transport Code of Conduct.</p>
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 health and safety for personal located at the site and neighbouring properties.	<p>The 2008 IEA assessed this condition as non-complaint on the basis that whilst an asbestos survey had been undertaken and asbestos identified, the treatment and / or removal had not been completed prior to construction. It noted that Cleanaway was in the process of commissioning a qualified contractor to remove the asbestos at the time.</p> <p>The auditors sighted a hard copy Asbestos Register which included a number of asbestos clearance certificates for asbestos removed during the audit period. It was reported that this register related to the legacy issues identified during the original survey.</p> <p>Site reported that the asbestos remaining on site has been treated to ensure no long-term impact on human health and safety for personal located at the site and neighbouring properties.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
	<p><i>Note: The Proponent is required to comply with the statutory requirements of the Occupational Health and Safety Regulation 2001 to manage risks to human health as a result of handling, treatment and removal of asbestos at the site.</i></p>	<p>The Asbestos Register does not include comments of treatment or removal of all identified asbestos and therefore the auditors could not verify this condition.</p> <p>In addition to the above register, the site maintains another Asbestos Register for newly identified asbestos (post original survey). The TPR Asbestos Register sighted by the auditors had items last added to the register in January 2011. This register does not indicate how the identified asbestos would be managed.</p> <p>In accordance with the <i>Work health and Safety Regulation 2017</i> (which replaced the <i>Occupational Health and Safety Regulation 2001</i>), the Asbestos Management Plan and Asbestos Register is required to be reviewed every five years as a minimum.</p> <p>A full assessment of compliance with the <i>Work health and Safety Regulation</i> was not undertaken as part of this audit.</p> <p>2018 IEA REC 07</p> <p>Consolidate the two Asbestos Registers into one Register which clearly documents what asbestos is present on site and how it is treated or managed to prevent human health impacts. Ensure that the Asbestos Management Plan and Asbestos Register is maintained and reviewed as a minimum every five years in accordance with the Work Health and Safety Regulations.</p>
2.36	<p>The Proponent shall ensure that any demolition waste generated as a result of MOD 4 should be classified in accordance with the EPA's waste classification guidelines and disposed of to (or recycled at) an appropriately licenced facility.</p>	<p>Comprehensive demolition waste classification and disposal records were not available for review. It was reported that the demolition and construction contractors were responsible for removal of waste (sighted contract scope document). It was reported that waste generated from these activities would have comprised of steel, concrete and clean fill. A letter was reviewed from Interactive Environmental Solutions dated 5.02.07 stating that it reviewed a soil assessment provided by Cleanaway and the results indicate the extracted soil may be used for clean fill. The soil assessment report was not reviewed by the auditors. On the basis that evidence of disposal or recycling of waste generated as a result of MOD 4 was not available, this Condition has been assessed non-compliant. It is noted however that this was difficult given the time lapse since this work was completed and this audit.</p> <p>Whilst not a requirement, it is considered best practice to maintain a waste register to help demonstrate compliance with regulatory requirements relating to waste disposal. Key items to document within the register include the waste type, quantity, classification, date removed from site, transporting company (and licence details) and disposal / recycling facility (and licence details).</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
2018 IEA OFI 09		
Maintain a waste register for waste removed from site to help demonstrate compliance with regulatory requirements relating to waste disposal.		
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.	<p>Refer to Condition M2.2 of EPL for detailed assessment of monitoring requirements.</p> <p>This condition was assessed as non-compliant based on non-compliance with the required sampling frequency in 2009. Since that time the Site has complied with the monitoring requirements and therefore no recommendations are made.</p> <p>Implementation of the AQMP is discussed under Condition 3.6(a).</p>
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 Secretary. Operations shall not commence until the Secretary has approved the OEMP. Upon receipt of the Secretary's approval, the Proponent shall supply a copy of the OEMP to the EPA and Council as soon as practicable.	<p><u>Preparation</u></p> <p>An Operational Environmental Management Plan (OEMP) was prepared in 2007 to address the requirements of this Condition. The 2008 IEA assessed the consultation and approval process of the OEMP.</p> <p>The OEMP has not been updated since this time and contains out of date information. For example:</p> <ul style="list-style-type: none"> - It does not include current statutory and other obligations. The Project Approval has been modified and the EPL varied a number of times since 2007. The OEMP does not clearly list these approvals and licences or others including the Trade Waste Agreement or Dangerous Goods Notification. - The Compliance Management Statutory Register (Appendix 2) is out of date. - The description of the Roles and Responsibilities does not include the Environmental Representative. - The performance measures require reviewing to ensure they reflect current practices and requirements

Reference	Condition Requirement Summary	Audit Finding and Recommendation
		<p>Details of landscaping undertaken on site are not contained within the OEMP, but outlined in the CEMP and Vegetation Management Plan (VMP), both of which have not been sighted.</p> <ul style="list-style-type: none"> - Details of contingency measures for adverse environmental impacts are not outlined in the OEMP, but have been outlined in the Groundwater Management Plan, Air Quality Management Plan and Site Emergency Management Plan. - The Environmental Policy was reviewed on 1 May 2018. The OEMP includes a superseded version of the Policy. <p>On the basis that the OEMP has not been maintained to reflect current operations and statutory requirements this condition has been assessed as non-compliant.</p> <p><u>Implementation</u></p> <p>Aspects of the OEMP were being implemented. For example, monthly inspections were being undertaken, Generally these were reported using the Workplace Inspection Form, however more recently notes / actions from the inspections were circulated via email.</p> <p>Annual Performance Reporting was being conducted (refer CoA 5.2).</p> <p>The format of the OEMP is not very user friendly and easy to implement. It is recommended that during the revision of the OEMP, thought is given to making the plan easier to implement.</p> <p>2018 IEA REC 08</p> <p>Update the OEMP to reflect current site operations, statutory requirements and management practices and provide to the Secretary for approval and the relevant agencies for their information.</p> <p>Refer also to the review of the adequacy of the OEMP in the main report.</p> <p>2018 IEA REC 09</p> <p>Re-commence using the Workplace Inspection Form to document site inspections as they provide evidence of items that were checked and found to be ok as well as noting issues.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
3.6	<p>The OEMP for the project shall include the following Management Plans:</p> <ul style="list-style-type: none"> - Air Quality Management Plan - Transport Code of Conduct - Groundwater Management Plan 	<p>(a) An Air Quality Management Plan (AQMP) was prepared in 2007 to address the requirements of this condition. The AQMP has not been revised since this time and does not reflect current operations and controls. On this basis this requirement is considered non-compliant. Refer also to review of adequacy of management plans in main section of the report.</p> <p>(b) A Transport Code of Conduct was prepared in 2007.</p> <p>The 2017 AEMR states that the Driver Code of Conduct is no longer in use for the restriction of routes due to the intersection upgrade that allows access for B-doubles.</p> <p>(c) Site prepared a Groundwater Management Plan (GMP) to address the requirements of this condition in 2006. The GMP was most recently updated on 15.08.17.</p> <p>The GMP states that it has been prepared to meet the requirements of the EPL. The auditors have reviewed the 2017 GMP against the requirements of this condition and found;</p> <ul style="list-style-type: none"> i) Details of baseline groundwater quality prior to commencement of construction have not been provided. ii) Groundwater assessment criteria were provided, including EPL monitoring requirements. iii) Groundwater monitoring program has been provided, and included monitoring parameters frequency and locations. iv) Details of contingency measures and mitigation options have not been included. v) Evidence of consultation with EPA (formerly DEC) and NSW Office of Water (formerly DNR) was not sighted by the auditors. <p>This condition has been assessed as non-compliant as the 2017 GMP does not include baseline monitoring data and contingency measures and mitigation options should monitoring of groundwater indicate that Cleanaway has exceeded the assessment criteria or is having an adverse impact on groundwater quality.</p> <p>Refer to recommendations relating to the adequacy of the AQMP in the main report</p> <p>Refer to recommendations relating to the adequacy of the GMP in the main report.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
3.7	Within three months of the completion of each Independent Environmental Audit (see condition 4.4), the Proponent shall review and update the Operation Environmental Management Plan (OEMP) for the project, in consultation with the EPA and Council, and to the satisfaction of the Secretary.	<p>The latest version of the OEMP (Rev 3) is dated 11.05.07 indicating that the OEMP was not updated following the 2008 IEA.</p> <p>Refer 2018 IEA REC 08</p>
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 these measures, when these measures would be implemented, and how the effectiveness of these measures would be measured and reported to the Secretary and the EPA. The Proponent shall comply with all reasonable requirements of the Secretary or the EPA in respect to the findings presented in the Report. Any such works shall be completed within such time as the Secretary or the EPA may require.	<p>Refer to CoA 4.2. The Operational Air and Noise Validation Report was submitted to EPA and the PRP subsequently removed from the EPL suggesting EPA satisfaction with the report and any follow up actions.</p> <p>Evidence that the Operational Air and Noise Validation Report was submitted to the DPE was not available. On the basis that it could not be verified that the report was submitted to the DPE, this condition has been assessed as non-compliant. It is noted however that this was difficult given the time lapse since this report was completed and this audit.</p> <p>2018 IEA REC 10</p> <p>Contact the DPE and request a copy of evidence that the Operational Air and Noise Validation report was provided to them for Cleanaway's record. Should the DPE not have evidence, submit the report to the DPE for its information.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
5.2	The Proponent shall submit an Annual Environmental Management Report (AEMR) for the project to the OEH, Council, and the Department. The AEMR shall be submitted annually on the 22 December, unless otherwise approved by the Department, and include the information required under this condition.	<p>Annual Environmental Management Reports (AEMRs) were available for the periods 2008/2009, 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015/2016, 2016/2017.</p> <p>The 2010/2011 AEMR states that the reporting period for 2010/2011 was extended “<i>due to the change in the EPL and is in line with the DPE Notice of Modification dated 18.10.11</i>”.</p> <p>Acknowledgement of submission of the AEMRs to the DPE has been provided for the following years:</p> <ul style="list-style-type: none"> • 2012-2013, DPE letter dated 25.02.14 noted that they were generally satisfied with its form, content and presentation • 2015-2016, DPE letter dated 15.05.17 – DPE requested the AEMR be resubmitted with additional information by 30.06.17 • 2016-2017, DPE acknowledgment email dated 22.12.17 • Automated acknowledgment of receipt by EPA of 2016-17 AEMR dated 22.12.17 <p>The auditors sighted evidence that the 2016-17 AEMR was provided to DPE, EPA and Maitland Council, however could not verify that all AEMRs for the 10 year audit period had been submitted to the relevant authorities within the required timeframe and on this basis, this condition has been assessed as non-compliant.</p> <p>AEMRs generally included the details required. However the following are noted:</p> <ul style="list-style-type: none"> • A copy of the Complaints Register for the preceding 12 month period was included in the 2009 AEMR only. AEMRs from 2010 – 2017 reported nil complaints. The Site Odour Complaints Register 2008-2015 indicates the following complaints were received via the EPA for the period 2010-2017: <ul style="list-style-type: none"> - 2010: 1 complaint - 2012: 1 complaint - 2014: 13 complaints - 2015: 4 complaints <p>In each instance the following response was provided in the register: “letter emailed with plant details and weather data for the date and time of the event”. Selections of these letters to the EPA were sighted by the auditors. Cleanaway explained that these were complaints received by the EPA for the Rutherford Industrial Estate that the EPA was following up. Following provision of the required information to the EPA there was no further requests or follow up from the EPA. Cleanaway considers that these complaints were not related to its activities. It was reported that no complaints were received directly by the site.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
		<p>For transparency it is recommended that the AEMR include discussion of complaints / enquires received from the EPA for Cleanaway to investigate and the outcome of this investigation.</p> <p>A Production Summary is provided in Table 3. This lists the ‘approved limit’ as 40,000 tpa and includes the volume of ‘product: waste lubricant oils’. It is unclear whether the reported figure is the base oil produced during the year or the waste oil processed. Given the limits specified by CoA 1.4 are to ‘not process more than 40,000 tonnes of waste lubricant oils a year’, Cleanaway should ensure it is reporting the volume of waste oil processed rather than base oil produced and make it clearer in the AEMR. It is understood that Cleanaway typically achieves a 97% yield and so these figures would not differ significantly.</p> <p>Air quality monitoring data is summarised in Tables 7-11. These include the EPL limit and mean of sample for each pollutant. As monitoring occurs yearly the mean is actually the result of the yearly testing. This could be clarified in the tables.</p> <p>Groundwater monitoring results for the year are summarised in Table 14. Section 7.3.2 provides a very brief discussion of trends. This does not discuss trends over the life of the development to date. No graphs including historical monitoring are provided (as they are for air quality monitoring). It is recommended that further analysis of trends in groundwater monitoring data since Cleanaway commenced operations is undertaken and provided in the AEMR. This is particularly important given the groundwater contamination at the site from historical land-use.</p> <p>2018 IEA REC 11</p> <p>Ensure evidence of submission of AEMRs to the relevant agencies and any comments received are maintained into the future.</p> <p>2018 IEA OFI 10</p> <p>Include further analysis of trends in the groundwater monitoring data over the life of the development to date within the AEMR.</p> <p>2018 IEA OFI 11</p> <p>Ensure the “Production Summary” provided in the AEMR reports the volume of waste oil processed per year to enable comparison against the limit specified by CoA 1.4.</p> <p>2018 IEA OFI 12</p> <p>Include a discussion of complaints / enquiries forwarded by the EPA for investigation within the AEMR.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
6.1	Subject to confidentiality, the Proponent shall make all documents required under this approval publicly available.	<p>This approval required the following documents to be prepared:</p> <ul style="list-style-type: none"> • Condition 2.17 – Soil Contamination Validation Report prior to construction • Condition 2.18 – Groundwater Contamination Assessment • Condition 2.21A – Construction Safety Study • Condition 3.5 – Operational Environmental Management Plan, including an Air Quality Management Plan, Groundwater Management Plan and Transport Code of Conduct • Condition 4.2 – Operational Air and Noise Validation Report • Condition 4.4 – Independent Environment Audit 2008 • Condition 5.2 – Annual Environmental Management Reports <p>It was not easy to navigate the Cleanaway website to find the site specific environmental information. After being shown where they were located, the following reports were accessed via the Cleanaway website:</p> <ul style="list-style-type: none"> • April 2016 Ground Water Monitoring • February 2016 Rutherford Air Monitoring • Annual Environmental Report 2017 • Rutherford H2 Plant OEMP • Pollution Incident Response Management Plan • 2018 Environmental Policy • Health and Safety Policy <p>This condition is considered not complaint as a number of documents required under this condition, as listed above, are not publically available.</p> <p>2018 IEA REC 12</p> <p>Ensure all of the required documents are publicly available on the Cleanaway website. In particular:</p> <ul style="list-style-type: none"> • Groundwater Management Plan • Air Quality Management Plan • Historic AEMRs (could seek guidance from the DPE regarding how far back to go) • Independent Environmental Audits • Operational Air and Noise Validation Report

Reference	Condition Requirement Summary	Audit Finding and Recommendation
		<p>2018 IEA OFI 13</p> <p>Consider making changes to the website to make it easier to find the required information. This could include grouping the information by site and having clearer headings for the environmental information.</p>
6.2	<p>Prior to the commencement of construction, the Proponent shall establish community complaints system to the satisfaction of the Secretary. This system must include:</p> <ol style="list-style-type: none"> A 24-hour telephone number on which complaints about operations on the site may be registered; A postal address to which written complaints may be sent; and An email address to which electronic complaints may be transmitted, should the Proponent have email capabilities. The telephone number, the postal address and the email address shall be advertised in a newspaper circulating within the locality on at least one occasion prior to the commencement of construction of each stage of the development. These details must also be displayed on a sign near the entrance to the site, in a position that is clearly visible to the public and on the Proponent's internet site, should one exist. The telephone number, post address and email address must be maintained throughout the life of the development. 	<p>The 2008 IEA verified that the community complaints system was established to the satisfaction of the DPE prior to the commencement of construction.</p> <p>This audit assessed the ongoing operation of the complaints system.</p> <p>A sign was located at the site entrance displaying the complaints contact information including an 1800 telephone number, postal address and email address.</p> <p>The complaints telephone number was tested on the day of the audit, and was found to be disconnected. It was reported that the telephone number was functioning in the months prior to the audit however it could not be determined how long the number had been disconnected. Cleanaway commenced investigation of the issue and in the meantime temporarily modified the sign at the entrance to include the company-wide community hotline that is advertised on Cleanaway's website.</p> <p>On the basis that the displayed telephone number was not operational at the time of the audit and for an unknown period prior to the audit, this condition has been assessed as non-compliant. It is noted however that should a complainant wished to have registered a complaint during this time; they could have done so via email or via the community hotline advertised on Cleanaway's website and that this would have been directed to Cleanaway Rutherford management for investigation.</p> <p>2018 IEA REC 13</p> <p>Ensure a valid 24-hour telephone number is displayed at the entrance to the site</p>

8.1.2 Environment Protection Licence 12555**Table 12 Summary of Non-Compliances against EPL 12555**

Reference	Condition Requirement Summary	Audit Finding and Recommendation
L3.2	Air concentration limits	<p>Over the audit period (11 June 2008 to 11 September 2018) EPL 12555 has be varied a number of times changing location of monitoring points, the pollutants monitored/concentration limits and the frequency of monitoring. Variations have often been done following completion of the Pollution Reduction Programs, for example preparation and submission of the following reports:</p> <ul style="list-style-type: none"> Operational Air and Noise Validation Report, dated 10 December 2008 Comprehensive Odour Audit Report, dated 10 November 2008 Phase 1 and 2 Environmental Site Assessment, dated 8 July 2008 <p>A review of the EPL Annual Returns indicated that the Site had a number of exceedances of EPL Conditions L3.1, L3.3 (now L3.2), M2.1 (now M2.2). These exceedances were related predominately to exceedance of pollutant limits at Discharge Point 19.</p> <p>The Site has reported no exceedance of EPL monitoring limits since September 2013.</p> <p>The auditors reviewed the annual source emissions monitoring reports prepared by Assured Monitoring Group (AMG) for 2017, 2016, 2015 and noted the following:</p> <ul style="list-style-type: none"> The annual monitoring for 2018 had not been undertaken at the time of the audit. 2017 Annual Monitoring was conducted from the 27.11.17 to 30.11.17. No exceedances of the concentration limits in this condition were identified. 2016 Annual Monitoring was conducted from the 5.12.16 to 9.12.16. No exceedances of the concentration limits in this condition were identified. 2016 Annual Monitoring was conducted from the 5.12.16 to 9.12.16. No exceedances of the concentration limits in this condition were identified. In 2015 the Site was required under the EPL to conduct quarterly sampling of air concentration limits. Cleanaway provided the auditors a copy of each quarterly report for 2015. For the purpose of this audit only the annual report for 2015 has been reviewed by the auditors (not the quarterly reports) as this reflects the current EPL condition. 2015 Annual Monitoring was conducted from the 3.11.15 to 6.11.15. No exceedances of the concentration limits in this condition were identified. <p>This condition has been assessed as non-compliant based on exceedances for concentration limits between 2008 and 2013. It is noted that in recent years the Site has not recorded any exceedances of the EPL concentration limits demonstrating that measures implemented since 2008 have been effective in improving air quality. On this basis no recommendations are considered necessary.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
M1.3	Requirement to maintain records of any samples collection for this licence.	<p><u>Groundwater monitoring</u></p> <p>The auditors reviewed the Groundwater Field Parameters field sheet used when sampling in 2015 and 2016. The field sheet included the date, the sample point and the initials of the person who took the sample. The field sheet did not record the time the sample was collected. The Auditors were also provided the groundwater sample data sheets (excel) for the 2016 and 2017 groundwater sampling. These data sheets included the date, sample time, sample location/point and name of person who collected the sample as required by this condition. Records of the information required under this condition should continue to be recorded as per the 2016 and 2017 groundwater sample data sheets.</p> <p><u>Air quality monitoring</u></p> <p>The auditors reviewed the Source Emission Monitoring Report 2017 which detailed the date on which samples were taken, the run start and run stop times and the sample location. The name of the person who collected the sample was not included and on this basis, this condition has been assessed as non-compliant.</p> <p>2018 IEA REC 14</p> <p>Update Air Emissions Monitoring spreadsheet to include the name of the person who collected the samples.</p>
M2.2	Air monitoring requirements including pollutant, units of measure, frequency and sampling method.	<p>As discussed in EPL Condition L3.2, a review of the EPL Annual Returns identified that the Site has had a number of exceedances of EPL Conditions including a non-compliance with EPL Condition M2.1 (now M2.2). The non-compliance was due to sampling of the following monitoring points not being undertaken in July 2008, DP1, DP2, DP3, DP5, DP18, DP19, DP20, as sampling was required quarterly at that time.</p> <p>The auditors reviewed the annual source emissions monitoring reports prepared by Assured Monitoring Group (AMG) for 2015, 2016, 2017 and noted the following (the annual monitoring for 2018 had not been undertaken at the time of the audit).</p> <ul style="list-style-type: none"> 2017 Annual Monitoring was conducted from the 27.11.17 to 30.11.17. AMG stated that the testing was conducted in accordance with NSW standard included in this condition and the test methods directly relate to the 'Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales' (DECC, 2007). 2016 Annual Monitoring was conducted from the 5.12.16 to 9.12.16. AMG stated that the testing was conducted in accordance with NSW standard included in this condition and the test methods directly relate to the 'Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales' (DECC, 2007).

Reference	Condition Requirement Summary	Audit Finding and Recommendation
		<ul style="list-style-type: none"> In 2015 the Site was required under the EPL to conduct quarterly sampling of air concentration limits. Cleanaway provided the auditors a copy of each quarterly report for 2015. For the purpose of this audit only the annual report for 2015 was reviewed (not the quarterly reports) as this reflects the current EPL condition. 2015 Annual Monitoring was conducted from the 3.11.15 to 6.11.15. AMG stated that the testing was conducted in accordance with NSW standard included in this condition and the test methods directly relate to the 'Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales' (DECC, 2007). <p>This condition has been assessed as non-compliant due to the non-compliance with sampling frequency in 2009. It is noted that the Site has complied with the monitoring requirements since that time and therefore no recommendations are made.</p>
M5.1	Weather monitoring requirements including parameter, units of measure, frequency, averaging period and sampling method.	<p>The Site has a weather station on site. The weather station operates continuously and is monitored by the Control Room.</p> <p>The site also has a wind sock located on the top flash point correction column.</p> <p>The Site provided weather calibration data for air temperature dated 22.06.17. The auditors sighted the planned maintenance excel workbook and noted that the weather station was scheduled for annual calibration. A Field Calibration Report by Environdata was sighted dated 30.11.17.</p> <p>Based on a review of available documents the weather station was reported to the EPA as not operational during the following dates:</p> <ul style="list-style-type: none"> 25.06.14 to 3.07.14 – letter notifying the EPA of repair sighted by the auditors dated 4.07.14 Unknown period in October 2014 - letter notifying the EPA of repair sighted by the auditors dated 22.10.14 <p>The above outages were notified to the EPA however were not reported in the Annual Return as non-compliances with the requirement for continuous monitoring.</p> <p>Raw monitoring data was provided by the Site for the auditors to review for the last three years. The weather data provided included 15 min incremental wind speed (km/h) and wind direction (degrees). The data provided included a number of gaps. It was explained that this is due to the process of downloading the data (not the operation of the weather station itself). The data downloaded was dependent on which operator downloaded the data. Cleanaway proposed to consolidate all databases and create one in a central location accessible to all employees for future data gathering. This is supported by the auditors.</p> <p>2018 IEA OFI 21 Consolidate weather station databases to facilitate future data gathering.</p>

Reference	Condition Requirement Summary	Audit Finding and Recommendation
		2018 IEA OFI 22 Ensure future outages that result in disruptions to the weather station are reported as a non-compliance in the Annual Return with the requirement for continuous monitoring.
M7.1	Operation of a telephone complaints line	Refer to CoA 6.2.
M7.2	Notify the public of the telephone complaints line	Refer to CoA 6.2.
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	<p>The auditors reviewed the EPA EPL register online and identified that the following Annual Returns were submitted later than 60 days after the end of the reporting period:</p> <ul style="list-style-type: none"> • 22.05.09 – 21.05.10 – Submitted on 23.07.10 • 22.05.10 – 28.09.10 – Submitted on 29.11.10 • 29.09.10 – 28.09.11 – Submitted on 02.12.11 • 29.09.14 – 28.09.15 – Submitted on 01.12.15 <p>In addition the following is noted:</p> <ul style="list-style-type: none"> - the Annual Return for licence period 22.05.08 to 21.05.09 was first submitted on 20.07.09 (within the 60 days). The Annual Return was then re-submitted on 30.10.09. - the Annual Return for reporting period 22.05.09 – 21.05.10 was re-submitted in a letter dated 22.12.11, following instruction from OEH, letter dated 16.12.11 (not sighted by the auditors). The Annual Return was resubmitted due to an error in reporting of the annual load limit for Hydrogen sulphide (L2.2). <p>On the basis that the Annual Returns have not always been submitted by the required date, this Condition has been assessed as non-compliant.</p> <p>It is noted that Cleanaway has complied with this Condition since 2016.</p> 2018 IEA REC 15 Ensure all future Annual Returns are submitted to the EPA within 60 days of the end of the reporting period (by the 27 November each year).

Reference	Condition Requirement Summary	Audit Finding and Recommendation
R.10	<p>The licensee must submit the following information with the Annual Return:</p> <ol style="list-style-type: none"> A comparison of data obtained from emissions monitoring to the emission limits in this licence and other relevant air quality criteria; Recommendations for the continuation or discontinuation of monitoring for pollutants which have not been detected or detected consistently at levels significantly below the licence and/or regulatory limits. 	<p>The Annual Returns were reviewed for each period against this condition. The following was identified:</p> <ul style="list-style-type: none"> 22.05.08 – 21.05.09 – a licence condition report R1.9.2 (now R1.10) was attached the EPL. 22.05.09 – 21.05.10 - a licence condition report was not attached to this Annual Return. 22.05.10 – 28.09.10 - a licence condition report was not attached to this Annual Return. 29.09.10 – 28.09.11 - a licence condition report was not attached to this Annual Return. 29.09.11 – 28.09.12 – a licence condition report was not attached to this Annual Return. 29.09.12 – 28.09.13 - a licence condition report was not attached to this Annual Return. 29.09.13 – 28.09.14 - a licence condition report was not attached to this Annual Return. 29.09.14 – 28.09.15 - a licence condition report was not attached to this Annual Return. 29.09.15 – 28.09.16 - a licence condition report was not attached to this Annual Return. 29.09.16 – 28.09.17 - a licence condition report was not attached to this Annual Return. <p>This condition has been assessed as non-compliant as the information required under this condition has not been submitted with the Annual Return since the 2008-2009 reporting period.</p> <p>2018 IEA REC 16</p> <p>Ensure the information required under EPL Condition R1.10 is submitted with the Annual Return each year.</p>
R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <ol style="list-style-type: none"> where this licence applies to premises, an event has occurred at the premises; or where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, <p>and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.</p>	<p>The Site reported that the following written reports were requested by the EPA during the audit period:</p> <ul style="list-style-type: none"> 29.04.09 – the EPA provided a Notice to Provide Information and/or records under Section 191 of the POEO Act (Notice number 1100030) in regards to exceedance of limits under EPL Condition L3.1. The auditors sighted a number of emails dated 12.05.09 to 08.07.09 identifying that the Site provided a response to this Notice and that it had been received by the EPA. 12.07.18 - The EPA requested a report into PFAS contamination. Cleanaway is in the process of commissioning this report. <p>From review of various documents with partial information it is the auditors understanding that the Site received a number of requests for written reports from the EPA over the audit period. However due to the extended time frame over which this audit period covers, not all records of EPA written reports have been able to be reviewed or closed out by the auditors. On the basis that this could not be verified, this condition has been assessed as non-compliant.</p> <p>2018 IEA REC 17</p> <p>Improve tracking of requests by regulatory agencies. Consider logging in the 'Vault' system to facilitate investigation and response to requests and track dates of close out.</p>

8.2 Additional Opportunities for Improvement

The following table has been reproduced from Appendix A. For details on the requirement, and for further discussion of the issue, refer directly to the tables in Appendix A. Many of the opportunities for improvement detailed in Table 13 are based around continuous improvement opportunities identified during the audit and do not necessarily represent immediate potential non-compliance issues.

Table 13 Summary of Opportunities for Improvement not relating to non-compliances

Reference	OFI #	OFI
Other		
CoA 2.11	2018 IEA OFI 06	Formalise the process for reviewing and tracking flaring / process upsets to ensure they do not exceed 2% of process operating time per annum. This could include, SCADA enhancements, manual tracking of the rolling annual average of flaring, developing an SOP or Work Instruction to document calculations and include reporting against this requirement within the AEMR.
CoA 2.15	2018 IEA OFI 07	Specify a sampling regime for assessing surface water quality against the objectives provided in Statement of Commitment 27A and implement.
CoA 2.15	2018 IEA OFI 08	Recommence completion of the Monthly Workplace Inspection Form.
CoA 2.20	2008 IEA REC 05	Engage an acoustic consultant to undertake noise monitoring to demonstrate compliance with the noise limits by current operations.
CoA 6.3	2018 IEA OFI 14	Update the Complaints Procedure (2006) to reflect that complaints are now managed and recorded using the Vault.
CoA 6.3	2018 IEA OFI 15	Include categories within the Vault for recording the means by which a complaint is made and the complainant's personal details.
EPL 12555 Condition A2.1	2018 IEA OFI 16	Update the address in the next revision of the EPL.
EPL 12555 Condition L4.1	2018 IEA OFI 17	Seek clarification from the EPA whether the feed oil received on site for processing should be included within this condition of the EPL as J100.
EPL 12555 Condition O4.2	2018 IEA OFI 18	Consider removing the dumped waste inherited from the previous owners located at the back of the property near the former dye and finishing warehouse. During this process separate the waste identified for recycling where possible.
EPL 12555 Condition O4.3	2018 IEA OFI 19	Within the next EPL variation, update this condition to refer to the current Regulations.
EPL 12555 Condition O6.3	2018 IEA OFI 20	Include a requirement / KPI for tracking the period that emissions are visible from the flare to enable tracking of compliance with the requirement that there must be no visible emission from the flare exceeding 5 minutes in any 2 hour period.

Reference	OFI #	OFI
EPL 12555 Condition R1.1	2018 IEA OFI 23	Review the requirements for publishing pollution monitoring data and whether the AEMR fulfils these requirements. In particular review the timing for publishing the data and where it is located on the website.
EPL 12555 Condition R1.9	2018 IEA OFI 24	Submit a variation to the EPL to remove this condition.

9.0 Limitations

AECOM Australia Pty Limited (AECOM) has prepared this report in accordance with the usual care and thoroughness of the consulting profession for the use of Cleanaway and only those third parties who have been authorised in writing by AECOM to rely on this Report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this Report.

It is prepared in accordance with the scope of work and for the purpose outlined in AECOM's proposal (OPP-666324) dated 2 August 2018. Where this report indicates that information has been provided to AECOM by third parties, AECOM has made no independent verification of this information except as expressly stated in the Report. AECOM assumes no liability for any inaccuracies in or omissions to that information.

This Report was prepared between 11 September 2018 and 11 November 2018 and is based on the conditions encountered and information reviewed at the time of preparation. AECOM disclaims responsibility for any changes that may have occurred after this time.

This report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Except as required by law, no third party may use or rely on this report unless otherwise agreed by AECOM in writing. Where such agreement is provided, AECOM will provide a letter of reliance to the agreed third party in the form required by AECOM.

To the extent permitted by law, AECOM expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this report. AECOM does not admit that any action, liability or claim may exist or be available to any third party. Except as specifically stated in this section, AECOM does not authorise the use of this report by any third party. It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the Site.

Appendix A

Compliance Matrix

Appendix A1 Audit Checklist Project Approval 05_0037

Appendix A1 – Project Approval 05_0037

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Schedule 1: ADMINISTRATIVE CONDITIONS					
TERMS OF APPROVAL					
1.1	<p>The proponent shall carry out the project generally in accordance with the:</p> <p>(a) EAR as amended by the preferred project report (<i>Resource Recovery and Recycling Facility, Rutherford – Preferred Project Report</i>) prepared by Parsons Brinckerhoff Australia Pty Ltd, dated May 2006</p> <p>(b) statement of commitments, prepared by Parsons Brinckerhoff Australia Pty Ltd, and dated 19 May 2006; and</p> <p>(c) Modification application titled Environmental Assessment for Transpacific Refiners, Modifications to Existing Development prepared by Transpacific Industries Pty Ltd., dated 12 April 2007;</p> <p>(d) Modification application titled Streamlining the Project Approval for the Construction and Operation of a Resource Recovery and Recycling Facility prepared by Transpacific Industries Pty Ltd and dated 7 July 2011;</p> <p>(e) MOD 4;</p> <p>(f) MOD 5; and</p> <p>(g) Conditions of this approval.</p>	<p>Preferred Project Report, dated April 2006</p> <p>Statement of Commitments, dated 19.05.06</p> <p>Modification application titled Streamlining the Project Approval for the Construction and Operation of a Resource Recovery and Recycling Facility dated 7.07.11</p> <p>Environmental Assessment for Replacement Stack, dated Nov 2014</p> <p>Plant – Equipment Layout Elevation, drawing number 4077, dated 4.12.14</p>	<p>a. During the site inspection the Site was observed to be generally operating in accordance with the EAR as amended by the Preferred Project Report however the following activities as approved under 05_0037 were not being undertaken:</p> <ul style="list-style-type: none"> - A truck wash bay and transport vehicle depot with ancillary waste water recycling plant - An industrial cleaning depot and environmental recovery services depot. <p>It is noted that in Modification Application dated 7 July 2011 the Site identified that these facilities were not installed and are no longer required.</p> <p>b. The auditors completed a high level review of the Statement of Commitments (SOC) and found the Site is operating in general accordance with them. The SOC includes a number of requirements which relate to the original project which are no longer relevant under the Preferred Project. The Site currently conducts a review against the SOC in the Annual Environmental Management Report (AEMR).</p> <p>c. MOD 1 approved the continued use of infrastructure not previously approved in the original project approval.</p> <p>d. Under the Modification Application dated 7.07.11 the Site requested streamlining of the monitoring requirements within the Project Approval with the EPL. The Site has generally applied the requirements to undertake environmental monitoring in accordance with this Modification. Monitoring requirements have been assessed against the CoA and EPL.</p> <p>e. MOD 4 granted approval for the replacement of a stack at the Site. The stack had been replaced at the time of the audit. The Site provided drawings of the stack which identified that the stack was 25 m in height as per the Modification Application.</p> <p>f. At the time of the audit the works proposed under MOD 5 had not commenced.</p> <p>g. The conditions of this approval have been assessed below.</p> <p>The Site has operated in general accordance with the activities described in the environmental assessments discussed above. This condition has been assessed as non-compliant as the Site has not operated in accordance with all the requirements included within this approval.</p>	Non-compliant	Refer to specific recommendations outlined in this approval.
1.2	If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the inconsistency.		Not triggered	Not triggered	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
1.3	<p>The proponent shall comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of:</p> <p>(a) any reports, plans or correspondence that are submitted by the Proponent in accordance with this approval; and</p> <p>(b) the implementation of any actions of measures contained in those reports, plans or correspondence submitted by the Proponent.</p> <p><i>Note: nothing in this consent approves the following components of the original project:</i></p> <p>(c) the oily water treatment and waste oil transfer facility</p> <p>(d) the Chemical Fixation, Stabilisation and Solidification (CFS) process facilities;</p> <p>(e) the waste water treatment plant;</p> <p>(f) the dangerous goods store; and</p> <p>(g) the soil conditioning and composting facility.</p>	<p>Acknowledgement of Notification of Hazardous Chemical on Premises, dated 13.02.15.</p> <p>Site observations</p>	<p>The preparation, including consultation with DPE required for each environmental management plan and implementation is discussed against the relevant Condition of Approval (CoA).</p> <p>The following components of the originally proposed project were not constructed / operational:</p> <ul style="list-style-type: none"> Oily water treatment and waste oil transfer facility Chemical fixation, stabilisation and solidification processing facility Waste water treatment plant Dangerous goods store. It is noted that the Site holds a Dangerous Goods Licence for storage of dangerous goods in tanks. The Site also maintains a "Dangerous Goods Store" however this store does not meet the threshold for Dangerous Goods notification and is not considered to be the dangerous goods store described in the original project description. soil conditioning and composting facility 	Compliant	
1.3A	<p>The Applicant shall:</p> <p>(a) Design and construct tanks in MOD 5 in accordance with API 650: Welded Steel Tanks for Oil Storage;</p> <p>(b) Comply with the requirements of the current edition of AS1940: The storage and handling of flammable and combustible liquids.</p>		Not triggered	Not triggered	
LIMITS OF APPROVAL					
1.4	The Proponent shall not process more than 40,000 tonnes of waste lubricant oils a year at the hydrogenation plant.	Production.xlsx spreadsheet	Site maintains a Base Oil Production spreadsheet which tracks the volume (in litres) of base oil production on a monthly basis. This spreadsheet also tracks the volume of waste feed oil, light ends by-product and the yield %. The auditors converted the volume of waste feed oil from litres to tonnes (by applying a density factor of 0.856 as advised by Cleanaway) and confirmed that for each year, the amount of waste oil processed (waste feed oil received for treatment) was well below 40,000 tonnes.	Compliant	
1.5	This approval shall lapse five years after the date on which it is granted, unless the works the subject of this approval are physically commenced on or before that time.	2008 IEA	<p>The commencement of the original works and works associated with MOD 1 within five years of the date the Project Approval was assessed as compliant in the 2008 audit.</p> <p>MOD 2 was administrative and did not involve construction works.</p> <p>MOD 4 for the replacement of the stack serving the fired heaters was granted in 2014. These works had been completed during the audit period.</p> <p>MOD 5 was granted on the 9.09.16 and at the time of writing the MOD 5 approved works had not yet commenced. MOD 5 Approval will lapse on the 9.09.21 if works have not physically commenced before that date.</p>	<p>Compliant (MOD 4)</p> <p>Not triggered (MOD 5)</p>	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Schedule 2: SPECIFIC ENVIRONMENTAL CONDITIONS					
WASTE					
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. <i>Note: The above condition only applies to the storage, treatment processing, reprocessing or disposal of waste at the site if it requires an EPL under the Protection of the Environment Operations Act 1997.</i>	EPL 12555	The Site reported that no other waste types were accepted on Site except those approved under EPL 12555. Refer to the EPL 12555 for a more detailed assessment.	Compliant	
2.2	The Proponent shall only receive, store, treat, process or reprocess the following wastes at the site: - waste lubricant oils	Inventory Stock spreadsheet, January 2016, September 2017 and September 2018	The Site reported that only used lubricant oils were accepted on-site during the audit period. The auditors sighted the Inventory Stock spreadsheet for January 2016, September 2017 and September 2018 showed the document number and description of where the material came from and the feedstock descriptor (location and viscosity). Other wastes were not observed to be stored or treated at the site during the site inspection.	Compliant	
2.3	The Proponent is prohibited from storing green waste and septic waste on site.	Site Inspection	The Site reported that no green waste or septic waste is stored on Site. During the site inspection the auditors did not see any stockpiles of green waste or septic piles. A timber stockpile was observed near Remnant Area 4.	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
AIR QUALITY					
Dust					
2.4	The Proponent shall design, construct, operate and maintain the project in a manner that prevents and/or minimises air pollution.	Site observations Stack testing results	<p>During the audit period modifications were made to the plant to improve air quality and minimise air pollution.</p> <p>The light end scrubber (Volatile Organic Compounds – VOC wet scrubber) was found in the early days of the plants operation to be ineffective in the reduction of VOC's prior to emission from the plant. To ensure this gas stream was treated appropriately a carbon scrubber was installed upstream of the wet scrubber to enhance the capture of VOC's and H₂S prior to the gas stream reaching the wet scrubber. The implementation of the carbon scrubbing system has been effective in the minimisation of light end emissions from the light end collection system.</p> <p>The performance of the scrubbers is regularly monitored by the control room.</p> <p>Stack emission testing showed that there has been a gradual improvement in air emissions since 2008. There were a range of non-compliances that occurred between 2008 and 2011 which have been resolved and as a result there have been no exceedances of any of the EPL limits since 2013.</p> <p>Observations made during the audit site inspection and the review of monitoring results suggests that air emissions are effectively managed on site.</p>	Compliant	
Odour					
2.5	<p>The Proponent shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the <i>Protection of the Environment Operations Act 1997</i>.</p> <p><i>Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the Proponent must not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is in accordance with the conditions of a license as a potentially offensive odour and the odour was emitted in accordance with the conditions of a license directed at minimising odour.</i></p>	Site inspection Complaints Register	<p>Air quality during the inspection was found to be good with only minor odours noted during the inspection, which were localised to areas on-site close to the source of the odours. At the time of the site inspection Cleanaway was in the process of undertaking a tank change over which was reported to be the source of the odours. Tank change overs were reported to not be common occurrences. No off-site odours were detected during the site inspection.</p> <p>No complaints had been received directly by the site since 2010. A number of odour complaints had been received for the Rutherford Industrial Estate by the EPA. The EPA contacted Cleanaway requesting information regarding activities occurring at the time and the wind direction. Upon provision of this information no further requests / follow up was provided by the EPA. Cleanaway reported that odours and EPA complaints significantly reduced upon closure of the neighbouring Truegain Refinery in approximately 2015.</p>	Compliant	
Air Quality Criteria					
2.6	The Proponent shall design, operate and maintain the project in a manner that would achieve emissions compliance with the EPL. The Proponent must advise the Department of any variations to the EPL as approved by EPA.	Site observations Stack testing results	<p>Refer to assessment of compliance with EPL air quality criteria. Stack testing records show compliance with EPL conditions since 2013.</p> <p>Prior to 2014 there were a number of non-compliances and on this basis this condition has been assessed as non-compliant. It is noted that Cleanaway has implemented a number of improvements which have resulted in improved air quality since this time and therefore no further recommendations are considered necessary.</p>	Non-compliant	Nil Corrective actions already implemented.

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Design Requirements					
2.7	The Proponent shall design, operate and maintain the project in a manner that would achieve Best Available Control Technology for toxic air pollutants specified in <i>Approved Methods for the Modelling and Assessment of Air pollutants in New South Wales</i> (August 2005).	Site inspection	Burners, flares and activated charcoal mitigation systems along with nitrogen blanketing are considered best practices for the control of emissions.	Compliant	
2.8	The Proponent shall ensure that all stack air emission points at the site are designed to: <ul style="list-style-type: none"> (a) Broadly conform to the general requirements of Guidelines for Determination of Good Engineering Practice Stack Height (Technical Support Document for the Stack Height Regulations) (US EPA); and (b) To accommodate and be built with sampling ports that conform with TM-1 as specified in <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> (August 2005). 	Site inspection	Velocities and the heights of the stacks were considered by the air quality specialist to be broadly acceptable. Ports all conform to sample port standards. The stack sampling points on the light end scrubber appear to be close to the exit point of the stack and should be reviewed for adequacy.	Compliant	Refer 2018 IEA REC 03
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 <i>Protection of the Environment (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005</i> . The manufacturer'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.	2008 IEA	The design and construction of the flare was assessed as compliant as part of the 2008 IEA. Therefore the design and construction of the flare has not been re-assessed as part of this audit. The <i>Protection of the Environment (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005</i> has been superseded by the <i>Protection of the Environment Operations (Clean Air) Regulations 2010</i> . The clauses referred to in this CoA relate to residence time, combustion temperature, destruction efficiency and presence of a flame. Testing of these parameters is not required by the EPL and not undertaken by the site. It is noted that the flare is only approved to operate during start-up, shutdown and process upsets. Site utilises qualitative measures such as the presence of a visible plume to monitor the operating efficiency of the flare. Given the flare is only permitted to operate during process upsets and the EPL does not require monitoring of residence time, combustion temperature and destruction efficiency this requirement is considered not relevant and has been assessed as closed out.	Closed out	
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 <i>Protection of the Environment Operations (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005</i> .		Refer to EPL Condition O4.3	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Operation of Flare					
2.11	The Proponent shall not vent 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 being three months from the start-up date of the project.	Extract of KPMG internal audit report October 2017 Plant KPI Report June 2018 Plant KPI Report	Prior to Oct 2017 Site was recording the flare start and stops times on the manual flare log however was not tracking this to ensure it was below 2% of process operating time per annum. As part of an internal audit, conducted by consultants KPMG in 2017, Cleanaway determined the flaring period and process operating period (by looking at SCADA records) and determined that it was below the 2% limit. Since October 2017, Cleanaway has recorded the duration of flaring within the Plant KPI Report and included a graph showing the flaring time upset and the cumulative flaring time for the month. This is reviewed by the Engineer on a monthly basis however there is no formalised process to track against the annual 2% limit. to track against the 2% limit. At the time of the audit Cleanaway was within the annual limit for flaring for 2018. It could not be determined whether this had been achieved for the entire audit period as this parameter was not specifically tracked however on the basis of the evidence provided for 2017 and 2018 it has been assessed as compliant with opportunities for improvement identified for future tracking and reporting.	Compliant	2018 IEA OFI 06 Formalise the process for reviewing and tracking flaring / process upsets to ensure they do not exceed 2% of process operating time per annum. This could include, SCADA enhancements, manual tracking of the rolling annual average of flaring, developing an SOP or Work Instruction to document calculations and include reporting against this requirement within the AEMR.
2.12	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 and shall include: (a) the flare start and stop time, and the reasons for its use; (b) the process start and stop time, and the reason for each process upset	Hard copy Flare Log for August 2018, April 2018, May 2018 October 2017 Plant KPI Report June 2018 Plant KPI Report	The auditors sighted the paper copy of the flare log completed and maintained by the control room. This was noted to include the date, time flaring started, time flaring finished, duration of flaring, stack appearance (visible plume or no visible plume) and reason for flaring. Details of process upsets, including duration and reason for upset, were included in the monthly Plant KPI Reports.	Compliant	
Boilers					
2.13	The Proponent shall not burn or use waste oil and other non-standard fuels as fuel at the site.	Observations	The site reported that no waste oil or non-standard fuels were burnt as fuel on site during the audit period. It was reported that natural gas was used to fuel operations. This was consistent with Auditor observations	Compliant	
2.14	Air supply to the boilers at the site may include vent air emissions from the hydrogenated oil storage, feed stock storage, light ends storage and sour water storage	Observations	The site reported that air supply to the boilers does not include vent air from air emissions from the hydrogenated oil storage, feed stock storage, light ends storage and sour water storage. This was consistent with Auditor observations.	Compliant	
2.14A	The sulphur composition of all fuel utilised for the project must not exceed 0.5 per cent.		Not triggered as requirement of MOD 5.	Not triggered	
SOIL AND WATER					
2.15	Except as may be expressly provided in an EPL for the project, the Proponent shall comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> .	EPL12555 Incident Register titled 'All_Incident (1).xlsx' Monthly Site Inspection forms 2009 – 2018 Trade Wastewater Agreement 16-10-	EPL 12555 for the Site states that the licensee must comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> . The EPL does not permit discharge of pollutants in water to the environment. Surface water Surface water from the site is managed in the following manner to prevent pollution of waters:	Compliant	2018 IEA OFI 07 Specify a sampling regime for assessing surface water quality against the objectives provided in Statement of Commitment 27A and implement.

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
		<p>2014</p> <p>Site Audit 10.09.2018 – 11.09.2018.</p> <p>0008-SM-SOP Storm Water Management.doc</p> <p>TPR-Rutherford-H2PlantOEMP.pdf</p> <p>Groundwater Monitoring Reports, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016</p> <p>Annual Returns</p> <p>AEMRs</p> <p>Workplace Inspection Forms 26.11.13, 20.06.14, 10.07.14, 16.03.15, 20.07.15, March.16, 27.05.16, 23.01.17, 23.10.17</p> <p>Invoice and waste tracking form from Toxfree dated 10.08.18 for pump out and removal of oily water (J120 waste)</p> <p>Preventative Maintenance Work Order – Stormwater Pit Silt Trap dated 24.01.18 and 18.07.18</p> <p>Stormwater Pit Inspection Logs 7.11.07 to 3.09.18</p>	<ul style="list-style-type: none"> Water captured in the bunded tank farm is directed to an oily water separator prior to discharge to sewer under a Trade Wastewater Agreement dated 16.10.2014. The Site reported that in events of heavy rainfall, when the tank farm bunds fill up with rainwater, bund water is pumped into the stormwater first flush system (see below) prior to stormwater discharge. Stormwater from hardstand areas of the Site flow to the back (south western) corner of the site for pollution collection and retention. The stormwater flows into two grated drains that collect at a Hydrodynamic Vortex Separator designed to remove solid sediment, pollutants, oil and other floatables in the water. It was reported that the pit is isolated from the stormwater drain by maintaining the valve closed unless release is allowed under controlled conditions. During the audit site inspection the valve was observed to be closed. <p>The Standard Operating Procedure for Stormwater Management requires that the stormwater pit is inspected monthly, depending on rainfall, and levels are checked after a heavy rainfall. It also requires that the stormwater pit is cleaned out every six months and inspected after a heavy rainfall for cleanout if necessary.</p> <p>The auditors sighted examples of completed Stormwater Pit Inspection Logs for the audit period. These logs record the Date, Time, Event (Rainfall, Cleanout, Oil Spill, Valve Opened, Sediment Level Checked, Visual Inspection), pH, Sediment Level check (Good, Cleanout required), Details / Conditions / Actions. The records inspected indicated the process was well documented.</p> <p>Preventative Maintenance Work Orders for the Stormwater Pit Silt Trap were sighted dated 24.01.18 and 18.07.18. The work orders indicated that the pit was inspected and there was no build up inside the pit requiring repair. The auditors sighted evidence that the stormwater pit was pumped out and de-sludged on the 10.08.18.</p> <p>Statement of Commitment 27A states that surface water will be managed to not exceed water quality objectives for the Hunter River published by the EPA using ANZECC data. A table of objectives for total phosphorus, total nitrogen, chlorophyll-a, NOx as N, salinity, dissolved oxygen and pH is included. Other than pH, evidence that the stormwater was tested and assessed against these objectives was not available.</p> <p>The auditors sighted examples of the Monthly Workplace Inspection Form which includes checks of stormwater management, drains and bunded areas. The selection of inspection reports sighted were noted to include comments against these checks such as “clean out drain sump”, ‘replace oil absorption pillows’, ‘HGP sump needs skimming’, indicating that the inspections were checking stormwater pits and picking up issues as required. In 2017, the Monthly Workplace Inspection Form was converted to an excel workbook with separate tabs for Admin & Depot, Workshop, Chemical Plant or Refinery and ERS. This version allows for observations, corrective actions, delegation of responsibility and inclusion of a due date. It is understood these actions are entered into the incident management system, the ‘Vault’, to facilitate tracking and close out. This is considered an improvement on the previous process.</p> <p>In 2018 the Site moved away from using the formal workplace checklist. The Site inspection was still being completed but identified issues were reported by exception via email.</p>		<p>2018 IEA OFI 08</p> <p>Recommend completion of the Monthly Workplace Inspection Form.</p>

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
			<p>The Site reported no incidents resulted in the pollution of waters.</p> <p>A review of the incident register for the Site did not identify any incidents which potentially may have resulted in pollution of waters. Incidents appeared to have been localised and effectively managed in accordance with the Site Emergency Response Plan and Pollution Incident Management Response Plan.</p> <p>Groundwater</p> <p>EPL 12555 requires groundwater monitoring to be undertaken yearly at monitoring points 6, 10, 22 and 23 for tetrachloroethene (PCE), Total Petroleum Hydrocarbons (TPH) C10-C36 fraction and TPH C6-C9 fraction. The licence does not specify concentration limits. Assessment Criteria are included within the Groundwater Management Plan. A review of groundwater monitoring reports, AEMRs and Annual Returns identified a number of exceedances of the assessment criteria however these were attributed to historical contamination of the site from past land uses (dye and finishing warehouse) and not from Cleanaway activities. The monitoring reports did not indicate any pollution of groundwater attributable to Cleanaway activities. It is noted the Groundwater Management Plan (GMP) does not outline how monitoring data will be reviewed and analysed to determine Cleanaway's impacts (if any) on groundwater. Refer to Condition 3.6 (e) for recommendations relating to the GMP.</p> <p>The operational areas of the site are largely sealed surfaces therefore minimise the potential for infiltration to groundwater from spills.</p>		
2.16	Prior to the commencement of operations, the Proponent shall ensure that stormwater management measures are implemented to mitigate the impacts of stormwater run-off from and within the site in a manner that is consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared, the measures shall be consistent with the guidance contained in <i>Managing Urban Stormwater: Council Handbook (EPA)</i> .	2008 IEA	This was assessed for the period prior to the commencement of operations under the 2008 IEA.	Closed out	
Soil Contamination					
2.17	Prior to the commencement of construction, the Proponent shall submit to the Secretary for approval, a soil contamination validation report to confirm the presence, or otherwise, of 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.	2008 IEA	Assessed as compliant in 2008 IEA therefore this condition is considered to be closed out.	Closed out	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Groundwater Contamination					
2.18	<p>Within six months of the granting of modified consent, the Proponent must complete the following groundwater contamination investigations and works which includes, but need not be limited to, the following:</p> <ul style="list-style-type: none"> (a) An assessment of the potential for off-site migration of chemicals of potential concern (including Tetrachloroethene); (b) Identification, based on the activities carried out on 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); (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: <ul style="list-style-type: none"> - enable the groundwater flow direction to be determined; - further investigate the lateral and vertical extent of groundwater contamination; - enable more accurate falling head tests and/or a pump test to be undertaken; and - 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; (e) An assessment of risk posed by the contamination and recommendations for appropriate management requirements. <p>The Secretary and the EPA must be provided with a copy of the report detailing the results of the investigations within seven months of the modified development consent being granted.</p> <p>The Proponent shall comply with all reasonable requirements of the Secretary 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 Secretary or the EPA may require.</p> <p><i>Note: should it be established that there are no ongoing contamination sources at the site, that the regional groundwater has no beneficial uses, and that groundwater is not used in the area, then more detailed investigations into contaminant concentrations in the regional aquifer, groundwater flow direction and flow velocity may not be necessary. If applicable, the reasons for not undertaking this further investigation must be detailed in the report.</i></p>	<p>EPL Notification Extension dated 04.01.08 re Condition U3 Groundwater Contamination Assessment</p> <p>Email to DPE dated 15.08.11 stating that Contamination Assessment Report was submitted on the 22.12.08</p>	<p>PA 05_0037 (MOD1) was approved on 16.05.2007 and therefore these investigations were due on the 16.11.07.</p> <p>It is noted this Condition mirrors the requirements of a Pollution Study and Reduction Program (PRP) which was included as Condition U3 in the EPL.</p> <p>As per the 2008 IEA, EPL (variation number 1082567) granted a six month extension to the due date for this report (revised due date 30 May 2008). The detail of the Groundwater Contamination Investigation Report was reviewed under the 2008 IEA and has not been repeated in this audit.</p> <p>At the time of the 2008 IEA there was no evidence that the Groundwater Contamination Investigation Report had been submitted to the Secretary and EPA and on that basis the condition was assessed as non-compliant.</p> <p>Evidence of the original submission of the report to the DPE was not able to be located however an email to the DPE dated 15.08.11 was sighted which stated that the report had been submitted on the 22.12.08.</p> <p>According to the EPL Variation Notice dated 30.08.10, a report titled <i>Phase 1 and 2 Environmental Site Assessment: Transpacific Refineries, Kyle Street, Rutherford</i>, was submitted to the EPA on the 22.07.08 to fulfil Condition U3 and it was deleted from the EPL.</p> <p>The 2008 IEA recommended that Cleanaway consider updating the GMP to reflect the contamination investigation report findings and any comments received from the DPE and EPA. It was also recommended that Cleanaway undertake further studies and works as recommended in the Report.</p> <p>The GMP was updated in 2017 and includes a brief discussion of the site's history. Further discussion of the adequacy of the management plan is provided under CoA 3.6 and the main section of the report.</p> <p>On the basis that the PRP was removed from the EPL, it is considered that the requirements of the EPA were met and this condition has been assessed as compliant.</p>	Compliant	
Bunding					
2.18A	<p>Prior to commencement of operations of MOD 5, the Applicant shall submit to the EPA details of an inventory system to accurately measure and report product losses from the tank farm.</p>	-	Not triggered	Not triggered	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
2.18B	<p>The Applicant shall ensure the bund for the tank farm in MOD 5:</p> <ul style="list-style-type: none"> (a) Includes a bund lining system to achieve an impermeable barrier; (b) Is designed, constructed and maintained in accordance with AS 1940:2004 and the EPA Technical Guideline Bunding and Spill Management; (c) Includes the installation of an early warning leak detection and prevention systems, prior to commencement of operations, that are certified by a site auditor accredited under the Contaminated Land Management Act, 1997; (d) Includes measures to manage liquids within the bund to ensure no migration of contaminants occurs that could cause pollution of land and/or groundwater; (e) Demonstrates that materials contained within the bund are compatible with bund construction such that its long-term function is not impaired; and (f) Is included in monitoring programs to ensure the bund achieves its performance objectives and continues to provide an effective barrier for the prevention of pollution of land and waters. 	-	Not triggered	Not triggered	
2.18C	<p>Prior to commencement of operations of MOD 5, the Applicant shall submit to the satisfaction of the Secretary, a report confirming the bunds have been installed in accordance with condition 2.18B. The report shall include:</p> <ul style="list-style-type: none"> (a) As-constructed drawings from field surveys depicting the base elevation of the bund, upper surface of the liner(s), geotextiles, engineered liners and sealed layers of the bund; (b) Construction quality control results; and (c) Written advice from the person(s) overseeing the works that the bunds were installed in accordance with the approved design and construction specifications. 	-	Not triggered	Not triggered	
2.18D	<p>Prior to commencement of operations of MOD 5, the Applicant shall implement a Containment Bund, Tank and Pipeline Integrity Assessment Program. The program must detail measures to assess and maintain the integrity of the tank farm containment bund, other containment structures, tanks and pipelines during the life of the facility.</p>	-	Not triggered	Not triggered	
NOISE					
Construction Hours					
2.19	<p>The Proponent shall only undertake construction activities associated with the project, that are audible at any residential receptor, between the following hours:</p> <ul style="list-style-type: none"> (a) 7:00am to 6:00pm, Mondays to Fridays, inclusive; (b) 8:00am to 1:00pm on Saturdays; and (c) At no time on Sundays or public holidays. 	<p>J003646-016 Project Schedule.pdf</p> <p>Cleanaway Complaints Register (excel)</p> <p>EPA Complaints Register (excel)</p>	<p>The Site reported that no significant construction activities have occurred during the audit period. Under MOD 4 a stack was constructed. The Site reported that this occurred during 7:00am to 6:00pm, Monday to Friday. The auditors sighted the project schedule for the stack construction which showed works were scheduled to be completed between July-August 2014 on Mondays-Fridays.</p> <p>The Cleanaway Complaints Register and EPA Complaints Register did not include any complaints for noise during the audit period.</p>	Compliant	

AUDIT CHECKLIST

Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																			
Noise Limits																								
2.20	<p>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.</p> <p>Table 2 – Noise Criteria</p> <table><tr><th rowspan="2">Location</th><th>Day 7am – 6pm Monday to Saturday and 8am – 6pm Sundays and Public Holidays</th><th>Evening 6pm – 10pm Monday to Sunday</th><th colspan="2">Night 10pm – 7am Monday to Saturday and 10pm – 8am Sunday</th></tr><tr><th>L_{Aeq}(15 minute) (dB(A))</th><th>L_{Aeq}(15 minute) (dB(A))</th><th>L_{Aeq}(15 minute) (dB(A))</th><th>L_{A1}(1 minute) (dB(A))</th></tr><tr><td>Receptor B</td><td>37</td><td>37</td><td>37</td><td>49</td></tr><tr><td>Receptor A – P (excluding B)</td><td>35</td><td>35</td><td>35</td><td>49</td></tr></table> <p>Note: for the purposes of this condition:</p> <p>a) noise emission limits apply under meteorological conditions of wind speeds up to 3m/s at 10 metres above ground level and temperature inversions conditions of 3 degrees Celsius per 100m. To determine compliance with this condition, noise from the development must be measured at any point within the residential boundary of a noise sensitive receiver location, or at any point within 30 metres of the dwelling at a noise sensitive receiver location where the dwelling is more than 30 metres from the boundary. However, where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA may accept alternative means of determining compliance (see Chapter 11) of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.</p> <p>b) Locations specified in Table 2 as per Noise Impact Assessment, Figure ES-1 as presented in the EAR.</p>	Location	Day 7am – 6pm Monday to Saturday and 8am – 6pm Sundays and Public Holidays	Evening 6pm – 10pm Monday to Sunday	Night 10pm – 7am Monday to Saturday and 10pm – 8am Sunday		L _{Aeq} (15 minute) (dB(A))	L _{Aeq} (15 minute) (dB(A))	L _{Aeq} (15 minute) (dB(A))	L _{A1} (1 minute) (dB(A))	Receptor B	37	37	37	49	Receptor A – P (excluding B)	35	35	35	49	<p>Operational Air and Noise Validation Report (ENSR, 2008)</p> <p>Complaints Register (excel)</p>	<p>The Site completed noise monitoring as part of the Operational Air and Noise Validation Report dated 10 December 2008. The report recorded noise measurements exceeding the noise limits specified in Table 2, however reported that these results were not likely to be attributed to the Site's operations. The report recommended that:</p> <ol style="list-style-type: none">Given the significant acoustic influences noted around the Rutherford area, it is recommended that the noise measurements be undertaken again without the influence of TPR i.e. during a scheduled shutdown period when no schedule maintenance could influence the results. The aim of this is to establish the contribution of the TPR plant to the background noise.Should the results of the measurements prove to be inconclusive, it is recommended that noise levels at major plant activities be measured and converted to sound power levels and added to a noise model to allow predictions of actual noise. This would allow verifiable predictions to be made at the property boundary and beyond.In the event that the two activities outlined above do not result in demonstration of compliance, TPR would investigate other methods to reduce noise emissions from their facility. <p>The Site did not undertake any further independent monitoring following the Operational Air and Noise Validation Report (ENSR, 2008) to assess compliance with this condition.</p> <p>The Site reported that the operations on Site have not changed significantly since the assessment in 2008.</p> <p>The Cleanaway Complaints Register and EPA Complaints Register did not include any complaints for noise during the audit period. Based on the findings of the Operational Air and Noise Validation Report and that no complaints related to noise have been received for the Site this condition has been assessed as compliant. However it is recommended that the Site undertakes noise monitoring to re-assess compliance with this condition for its current operations.</p>	Compliant	<p>2008 IEA REC 05</p> <p>Engage an acoustic consultant to undertake noise monitoring to demonstrate compliance with the noise limits by current operations.</p>
Location	Day 7am – 6pm Monday to Saturday and 8am – 6pm Sundays and Public Holidays		Evening 6pm – 10pm Monday to Sunday	Night 10pm – 7am Monday to Saturday and 10pm – 8am Sunday																				
	L _{Aeq} (15 minute) (dB(A))	L _{Aeq} (15 minute) (dB(A))	L _{Aeq} (15 minute) (dB(A))	L _{A1} (1 minute) (dB(A))																				
Receptor B	37	37	37	49																				
Receptor A – P (excluding B)	35	35	35	49																				

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
HAZARDS AND RISKS					
2.21	<p>Prior to the commencement of construction of the project, the Proponent shall prepare and submit for the approval of the Secretary, the following studies:</p> <p>(a) A Fire Safety Study covering the relevant aspects of the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 2 – Fire Safety Study Guidelines and the NSW Government's Best Practice Guidelines for Contaminated Water Retention and Treatment Systems</i>. In addition to approval from the Secretary, approval for this study shall also be obtained from the Commissioner of the NSW Fire Brigades/Rural Fire Service.</p> <p>(b) A Hazard and Operability Study, undertaken by an independent qualified person approved by the Secretary. The study shall be carried out in accordance with Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 8 – HAZOP Guidelines</i>. The study report shall be accompanied by a program for the implementation of all recommendations made in the report. If the Proponent proposes to defer the implementation of a recommendation, full justification must be included. In particular, the HAZOP must address:</p> <p>i) The adequacy of the vent and pressure relief systems, such as relief valves and busting discs, in the hydrogen system and the process systems;</p> <p>ii) The adequacy of measures to ensure that oil/sludge is not built up on the upstream side of relief devices;</p> <p>iii) That adequate provision has been made for isolating the hydrogen line and the process area with 'blowing through' with inert gas prior to maintenance work such as welding in the vicinity;</p> <p>iv) The details of the hazardous classification area and the adequacy of safety measures for the hydrogen manufacturing area, process area and the area surrounding the hydrogen supply pipes; and</p> <p>v) The separation distances between the hydrogen system, and the natural gas and the boiler house system.</p> <p>(c) A Final Hazard Analysis prepared in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis</i>.</p> <p>(d) A Construction Safety Study prepared in accordance with the Department of Planning <i>Hazardous Industry Planning Advisory Paper No. 7 – Construction Safety Guidelines</i>. The "commissioning" portion of the study may be completed prior to the commencement of operations rather than prior to the commencement of construction. In particular, risks during the construction period from and to the existing plant shall be considered in the study.</p> <p>Construction, other than of preliminary works, shall not commence until approval is given to the studies listed in a) – d). The Proponent shall consider and implement, as appropriate, all recommendations arising out of the studies and/or shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures presented in the Report. Any such works shall be completed within such time as the Secretary may require.</p>	2008 IEA	As required under Condition 2.23, Cleanaway (formally Transpacific) was required to submit a Pre-Start Up Compliance Report detailing compliance with conditions 2.21 and 2.22. As discussed in Condition 2.23 this requirement was assessed in the 2008 IEA as compliant therefore this condition is considered closed out.	Closed out	
2.21A	<p>Prior to the commencement of stack demolition associated with MOD 4, the Proponent shall submit a Construction Safety Study prepared in accordance with the Department of Planning's Hazard Industry Planning Advisory Paper No. 7, 'Construction safety' to the satisfaction of the Secretary.</p>	Letter from DPE, dated 17.12.2014	The auditors sighted a letter from the DPE, dated 17.12.2014 stating that the Department has reviewed the Construction Safety Study dated 08.12.2014, prepared by Transpacific Industries and considers that it has been prepared in accordance with Condition 2.21A.	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
2.21B	<p>At least one month prior to the commencement of construction of MOD 5, or within such further period as the Secretary may agree, the Applicant shall prepare and submit for the approval of the Secretary an update of the following studies to include MOD 5. Construction of MOD 5, other than preliminary works, shall not commence until approval has been given by the Secretary and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW.</p> <p>a) Fire Safety Study: An updated Fire Safety Study in accordance with Condition 2.21 a).</p> <p>b) Final Hazard Analysis: A final Hazard Analysis in accordance with Condition 2.21 c) and include the implementation of recommendations of the Preliminary Hazard analysis in MOD 5.</p> <p>c) Construction Safety Study: An updated Construction Safety Study in accordance with Condition 2.21 d).</p>	-	Not triggered	Not triggered	
Pre-commissioning					
2.22	<p>Prior to the commencement of operation of the project, the Proponent shall prepare and submit for the approval of the Secretary, the following studies:</p> <p>(a) An Emergency Plan and detailed emergency procedures shall for the site. An update of the existing site Emergency Plan will be acceptable for the purpose of this condition. The plan shall include detailed procedures for the safety of all people outside of the development who may be at risk from the development. The plan shall be prepared in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 1 – Industry Emergency Planning Guidelines</i>.</p> <p>(b) A Safety Management System covering all on-site operations and associated transport activities involving hazardous materials. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept on-site and shall be available for inspection by the Secretary or nominee. The Safety Management System shall be developed in accordance with the Department of Planning's <i>Hazardous Industry Planning Advisory Paper No. 9 – Safety Management</i>.</p> <p>Operations shall not commence until approval is given to the studies outlined in a) – b). The Proponent shall consider and implement, as appropriate, all recommendations arising out of the studies and/or shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures presented in the Report. Any such works shall be completed within such time as the Secretary may require.</p>	2008 IEA	As required under Condition 2.23, Cleanaway (formally Transpacific) was required to submit a Pre-Start Up Compliance Report detailing compliance with conditions 2.21 and 2.22. As discussed in Condition 2.23 this requirement was assessed in the 2008 IEA as compliant therefore this condition is considered closed out.	Closed out	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
2.22A	At least two months prior to the commencement of commissioning of MOD 5, or within such further period as the Secretary may agree, The Applicant shall submit for the approval of the Secretary, an updated Emergency Plan including updated emergency procedures to incorporate changes due to MOD 5. The Emergency Plan shall be prepared in accordance with Condition 2.22 a).	-	Not triggered	Not triggered	
2.22B	At least two months prior to the commencement of commissioning of MOD 5, or within such further period as the Secretary may agree, The Applicant shall submit for the approval of the Secretary, an updated Safety Management System to incorporate changes due to MOD 5. The Safety Management System shall be prepared in accordance with Condition 2.22 b).	-	Not triggered	Not triggered	
Post-commissioning					
2.23	<p>Prior to commencement of operations, the Proponent shall submit to the Secretary, a Pre-Start up Compliance Report, detailing compliance with conditions 2.21 and 2.22, including:</p> <ul style="list-style-type: none"> (a) Dates of commissioning of plant; (b) An action plan to implement recommendations made in the studies listed in conditions 2.21 and 2.22; and (c) Responses to each requirement imposed by the Secretary in respect of the implementation of any measures arising from recommendations of the studies or reports referred to in conditions 2.21 and 2.22 above and the hazards-related conditions of this approval, within such time as the Secretary may agree. 	2008 IEA	The 2008 IEA reported that the auditors sighted correspondence from the Secretary approving the Pre-Start Up Compliance Report. This condition is considered closed out.	Closed Out	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Dangerous Goods					
2.24	<p>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. The bund(s) shall be designed and installed in accordance with:</p> <p>(a) The requirements of all relevant Australian Standards; and</p> <p>(b) The EPA's Environmental Protection Manual <i>Technical Bulletin Bunding and Spill Management</i>.</p> <p>In the event of an inconsistency between the requirements listed from a) to b) above, the most stringent requirement shall prevail to the extent of the inconsistency.</p>	<p>Site observations</p> <p>Dangerous Goods Store Review, Advitech, 6.04.16</p> <p>Drawing: 4091_Product storage tank bund & sump_march 2006.pdf</p>	<p>The auditors completed a rough calculation of the bund volume based on the dimensions shown in an as-built drawing of the product storage tank bund which indicated the bund meets the capacity requirements.</p> <p>Cleanaway engaged Advitech in 2016 to conduct a review of nominated Dangerous Goods (DG) locations for compliance with relevant standards including:</p> <ul style="list-style-type: none"> - AS 1940 – 2004 The storage and handling of flammable and combustible liquids - AS 3780 - 2008 The storage and handling of corrosive substances - AS 4326 - 2008 The storage and handling of oxidising agents - AS 4332 – 2004 The storage and handling of gases in cylinders - AS/NZS 5026:2012 The storage and handling of Class 4 dangerous goods - AS/NZS 60079.10.1:2009 Explosive Atmospheres Classification of areas – Explosive gas atmospheres - Australian Dangerous Goods (ADG) Code – Seventh Edition - Work Health and Safety (WHS) Regulation 2011 - Safe Work Australia Managing Risk of Hazardous Chemicals Code of Practice <p>The review focused on the DG Store and workshop and not the tank farm area. The report did not identify any issues relating to bunding and spill management. A number of recommendations were made relating to signage and separation distances of incompatible materials.</p> <p>A visual inspection of the perimeter bund wall identified the following issues (refer to photos in main report):</p> <ul style="list-style-type: none"> - Damage to the upper portion of the western bund wall within the Tank Farm - Bottom of spill deflection sheeting for Sodium Hydroxide IBCs located at Depot 2A adjacent the western perimeter bund wall in the Fractionation Plant ends above the top surface of the process area perimeter bund, which makes it possible for a spill to travel to the outside of the bund. - Waste oil IBC on bunded pallet sits above the bund making it possible for a spill outside of bund. <p>Refer also to Hazard Audit for further discussion of bunding integrity.</p>	Compliant	<p>Refer 2018 IEA OFI 01 & 2018 IEA OFI 02</p> <p>Refer also to recommendations relating to bunding integrity within the Hazard Audit.</p>
TRANSPORT					
Road Improvements					
2.25	<p>Prior to the commencement of operations or as otherwise agreed to by the Secretary, the Proponent shall provide a monetary contribution of \$60,000 to the RTA towards the upgrade of the New England Highway and Kyle Street intersection to accommodate B-Double movements.</p>	2008 IEA	Closed out in 2008 IEA as compliant.	Closed Out	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
2.26	The Proponent shall ensure that B-Doubles associated with the site do not use the New England Highway and Kyle Street intersection at any time until the intersection has been upgraded to cater for B-Double movements. In the interim, B-Doubles associated with the site shall only use the Racecourse Road/New England Highway intersection to access the site via Racecourse Road and Kyle Street.		The New England Highway and Kyle Street intersection was upgraded in approximately 2015. The Site reported that prior to the new intersection upgrade B-Doubles only accessed the Site via Racecourse Road/New England Highway.	Compliant	
2.27	<p>To enforce the nominated B-Double route, as conditioned in condition 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:</p> <ul style="list-style-type: none"> (a) Details of the measures that would be implemented to enforce this route. This shall include, but not be restricted to. Contractual arrangements and disciplinary action; (b) A program of driver training to ensure that drivers are aware of route restrictions applicable to the development; (c) Communication and management strategies for both the Proponent's own fleet and contracted fleet to ensure the requirements of the Code are met; (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 Code in enforcing this route. <p>The Applicant shall not commence operations until the Secretary has approved the Transport Code of Conduct. The Code shall be incorporated into the Operational Environmental Management Plan for the development (refer to condition 3.5 and condition 3.6 of this consent).</p>	2008 IEA TPI NIMS SP 00 Transport Code of Conduct Rev 4 18.04.07	<p>The 2008 IEA identified that the Transport Code of Conduct was submitted to the Secretary in a letter dated 26.09.2006. Approval from the Secretary was not sighted.</p> <p>The 2008 IEA reviewed the content of the Transport Code therefore a detailed review of the Code has not been assessed as part of this audit.</p> <p>Evidence of implementation of the Transport Code of Conduct was not available for review in this 2018 IEA.</p> <p>The Transport Code of Conduct is referred to in Section 4.2 of the OEMP however the Code has not been attached or repeated within the OEMP document.</p> <p>This condition has been assessed as technically non-compliant as the Site was not able to provide evidence of approval of the Transport Code of Conduct by the Secretary and evidence that it was implemented during the audit period. It is noted however that the B-Double access route is no longer restricted since the upgrade of the New England Highway and Kyle Street intersection upgrade in 2015.</p>	Non-compliant	2018 IEA REC 06 Update the OEMP to discuss the relevance of the Transport Code of Conduct.
Internal Road Works and Parking					
2.28	<p>The Proponent shall ensure that:</p> <ul style="list-style-type: none"> (a) All car parking on the site is constructed in accordance with the relevant requirements in AS 2890.1-2004; (b) The internal road network can accommodate the largest vehicles that would be used on site in accordance with the relevant requirements of AS 2890.2-2002; (c) No vehicles from the project park, queue or stand in any of the road reserves outside the site. 	2008 IEA Observations Complaints Register (excel)	<ul style="list-style-type: none"> a. Assessed post construction in 2008 IEA as compliant. b. Assessed post construction in 2008 IEA as compliant. c. The Site reported that it has not had issues with queuing off-site. The auditors did not observe vehicles from the Site queuing or standing in road reserves outside of the Site. No complaints were received relating to off-site vehicle queuing. 	Compliant	
2.29	<p>Prior to the commencement of construction work, the Proponent shall submit to the Secretary documentation detailing the internal traffic management plan, particularly the internal road works and car parking arrangement for the project. This shall include:</p> <ul style="list-style-type: none"> (a) Measures to ensure the conflict between passenger vehicles and heavy vehicles are minimised. This includes reversing passenger vehicles into road carriage ways utilised by heavy vehicles; (b) Measures to ensure the conflict between pedestrians and vehicles on-site are minimised; (c) The arrangement for the unloading and loading of heavy vehicles; and (d) Demonstration of adequate turning-paths for all heavy vehicles accessing various components of the project. <p>This internal traffic management plan shall be prepared in consultation with Council. Documentary evidence of this consultation shall be provided to the Secretary.</p>	2008 IEA	Assessed in 2008 IEA as compliant.	Closed Out	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
2.30	Prior to the commencement of construction work, the Proponent shall demonstrate to the Secretary that any applicable consent for the site access road works have been granted under section 138 of the <i>Roads Act 1993</i> . The site access point shall be completed prior to the commencement of operations.	2008 IEA	Assessed in 2018 IEA as compliant.	Closed Out	
FLORA AND FAUNA					
2.31	The Proponent shall minimise 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.	Site observations	Remnant 4 and Remnant 3 areas were sighted during the audit. Both areas were fenced to protect the vegetation community (refer to photos in main report). The auditors did not enter the fenced area. The area appeared tidy and relatively free of weeds. A detailed assessment of the 'health' of the communities was not undertaken.	Compliant	
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 <i>AS 4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> .	Complaints Register.xlsx	This Condition was assessed as compliant in the 2008 IEA. There have been no changes to external lighting during the audit period. The Site has minimal external lighting. Cleanaway reported that no complaints were received in relation to lighting.	Compliant	
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.	Asbestos Management Plan & Register 2012. Waste delivery dockets 14.12.09 and 24.05.14.	The 2008 IEA reported that Cleanaway completed an Asbestos Survey (May, 2008) and had commenced commissioning an asbestos removal contractor. A waste delivery docket was sighted by the auditors which showed asbestos waste was disposed of at The Elizabeth Drive Landfill on 14.12.09. The Elizabeth Drive Landfill is licensed to accept asbestos waste. Evidence was also available indicating that asbestos waste was to be delivered to the Cleanaway Erskine Park Landfill in May 2014. The approval notice issued by Erskine Park Landfill stated that based on its assessment it could accept the 'special solid- asbestos' waste under its licence. The Site has an Asbestos Management Plan, dated 12.12.2012 which includes requirements for handling, removal and disposal of asbestos waste, specifically describing personal protection equipment, decontamination, asbestos removal methods, bagging, transportation by licensed transporters, completion of appropriate documentation and training (refer also to CoA 2.34). A detailed assessment of compliance with all asbestos removal works against the requirements of the POEO Regulations 2014 has not been completed.	Compliant	
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 health and safety for personal located at the site and neighbouring properties. <i>Note: The Proponent is required to comply with the statutory requirements of the Occupational Health and Safety Regulation 2001 to manage risks to human health as a result of handling, treatment and removal of asbestos at the site.</i>	Site Asbestos Register (hard copy) including: <ul style="list-style-type: none">- Asbestos Clearance Certificates issued by Parsons Brinckerhoff, signed by a licensed asbestos assessor, dated 23.05.14, 6.06.14.- Visual Asbestos	The 2008 IEA assessed this condition as non-compliant on the basis that whilst an asbestos survey had been undertaken and asbestos identified, the treatment and / or removal had not been completed prior to construction. It noted that Cleanaway was in the process of commissioning a qualified contractor to remove the asbestos at the time. The auditors sighted a hard copy Asbestos Register which included a number of asbestos clearance certificates for asbestos removed during the audit period. It was reported that this register related to the legacy issues identified during the original survey.	Non-compliant	2018 IEA REC 07 Consolidate the two Asbestos Registers into one Register which clearly documents what asbestos is present on site and how it is treated or managed to prevent human health impacts. Ensure that the Asbestos Management Plan and Asbestos Register is maintained and reviewed

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
		<p>Clearance Report issued by Heggies, dated 28 August 2008</p> <ul style="list-style-type: none"> - Visual Asbestos Clearance Report – Workshop Building Report issued by Heggies, dated 10 September 2008 - Visual Asbestos Clearance Reports – Workshop Building Roof Report issued by Heggies, dated 16 September 2008, 19 September 2008, 25 September 2008, 30 September 2008, 3 October 2008 - Visual Asbestos Clearance Reports – Workshop Building Louvers Report issued by Heggies, dated 22 October 2008 - Asbestos Identification Results, issued by Heggies, dated 27 October 2008 - Visual Asbestos Clearance Report – External Ground Area to Workshop Shed Report issued by Heggies, dated 5 November 2008 - Visual Asbestos Clearance Report – External Ground Surface Area Adjacent the Workshop and Storage Shed Report issued by Heggies, dated 5 November 2008 - Asbestos Clearance Report – North East Car Park and Grassed Area West Side of Storage Shed issued 	<p>Site reported that the asbestos remaining on site has been treated to ensure no long-term impact on human health and safety for personal located at the site and neighbouring properties. The Asbestos Register does not include comments of treatment or removal of all identified asbestos and therefore the auditors could not verify this condition.</p> <p>In addition to the above register, the site maintains another Asbestos Register for newly identified asbestos (post original survey). The TPR Asbestos Register sighted by the auditors had items last added to the register in January 2011. This register does not indicate how the identified asbestos would be managed.</p> <p>In accordance with the <i>Work health and Safety Regulation 2017</i> (which replaced the <i>Occupational Health and Safety Regulation 2001</i>), the Asbestos Management Plan and Asbestos Register is required to be reviewed every five years as a minimum.</p> <p>A full assessment of compliance with the <i>Work health and Safety Regulation</i> was not undertaken as part of this audit.</p>		as a minimum every five years in accordance with the Work Health and Safety Regulations.

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
		by Heggies, dated 31 October 2008 TPR Asbestos Register (Excel)			
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.	2008 IEA	The main demolition works were undertaken during construction and were assessed in the 2008 IEA as compliant.	Closed out	
2.36	The Proponent shall ensure that any demolition waste generated as a result of MOD 4 should be classified in accordance with the EPA's waste classification guidelines and disposed of to (or recycled at) an appropriately licenced facility.	Contract scope Document Interactive Environmental Solutions letter dated 05.02.07	<p>Comprehensive demolition waste classification and disposal records were not available for review. It was reported that the demolition and construction contractors were responsible for removal of waste (sighted contract scope document). It was reported that waste generated from these activities would have comprised of steel, concrete and clean fill. A letter was reviewed from Interactive Environmental Solutions dated 5.02.07 stating that it reviewed a soil assessment provided by Cleanaway and the results indicate the extracted soil may be used for clean fill. The soil assessment report was not reviewed by the auditors. On the basis that evidence of disposal or recycling of waste generated as a result of MOD 4 was not available, this Condition has been assessed non-compliant. It is noted however that this was difficult given the time lapse since this work was completed and this audit.</p> <p>Whilst not a requirement, it is considered best practice to maintain a waste register to help demonstrate compliance with regulatory requirements relating to waste disposal. Key items to document within the register include the waste type, quantity, classification, date removed from site, transporting company (and licence details) and disposal / recycling facility (and licence details).</p>	Non-compliant	2018 IEA OFI 09 Maintain a waste register for waste removed from site to help demonstrate compliance with regulatory requirements relating to waste disposal.

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Schedule 3: ENVIRONMENTAL MANAGEMENT AND MONITORING					
ENVIRONMENTAL REPRESENTATIVE					
3.1	<p>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 Secretary. The Proponent shall employ this representative/s throughout the life of the project, and notify the Secretary of any changes to the appointment that may occur from time to time. This environmental representative must be:</p> <p>(a) The primary contact point in relation to the environmental performance of the project;</p> <p>(b) Responsible for all the environmental requirements under this approval;</p> <p>(c) Responsible for considering and advising on matters specified in the conditions of this approval, and all other licenses and approvals related to the environmental performance and impact of the project;</p> <p>(d) Responsible for receiving and responding to complaints about the project; and</p> <p>(e) Given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.</p>	Email to DPE advising of ER change dated 31.08.17	<p>At the time of the 2008 IEA the Environmental Representative was approved by the Secretary.</p> <p>During the audit period the Environmental Representative (ER) changed from Ken Telfer to Orhan Cambaz, Senior Environmental Business Partner. Cleanaway notified DPE in an email dated 31.08.17. Cleanaway reported that the DPE did not provide any feedback following the notification.</p> <p>The ER was not based on site however it was reported that his role includes all of the requirements of this condition. These were not documented within the OEMP. The ER was supported by Bart Downe, Environmental Business Partner. Bart was involved in the IEA.</p>	Compliant	
OPERATIONAL AIR MONITORING					
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.		<p>Refer to Condition M2.2 of EPL for detailed assessment of monitoring requirements.</p> <p>This condition was assessed as non-compliant based on non-compliance with the required sampling frequency in 2009. Since that time the Site has complied with the monitoring requirements and therefore no recommendations are made.</p> <p>Implementation of the AQMP is discussed under Condition 3.6(a).</p>	Non-compliant	Nil
CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)					
3.3	<p>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 Secretary. This plan must outline the environmental management practices and procedures that would be implemented during each stage of construction, and include:</p> <p>(a) A description of all activities to be undertaken on the site during construction of the project, including an indication of stages of construction, where relevant;</p> <p>(b) Statutory and other obligations that the Proponent is required to fulfil during construction, including all approvals, consultations and agreements required from authorities and other stakeholders;</p> <p>(c) Details of how the environmental performance of the construction works would be monitored, and what action as would be taken to address identified adverse environmental impacts;</p> <p>(d) A description of the roles and responsibilities for all relevant employees involved in the construction of the project; and</p> <p>(e) Complaints handling procedures during construction and site preparation.</p>	2008 IEA	This condition as assessed under the 2008 IEA as compliant and is considered closed out.	Closed Out	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
	Site preparation and construction works associated with any stage of the project shall not commence until the Secretary has approved the CEMP for that stage. Upon receipt of the Secretary's approval, the Proponent shall supply a copy of the CEMP to the EPA , DNR and Council as soon as practicable.				
3.4	<p>The CEMP for the project shall include the following Management Plans:</p> <p>(a) A Soil, Water and Dust Management Plan to detail measures to minimise the disturbance if soil, erosion and the generation of dust during construction of the project. This plan shall include:</p> <ul style="list-style-type: none"> i) The results of investigations into soils associated with the site, in particular the presence of friable asbestos and/or contaminants within the construction work footprint; ii) A description of the proposed erosion and sediment control measures, which must be consistent with best practice, including the Landcom's publications <i>Soil and Water Management for Urban Development</i> and the <i>Managing Urban Stormwater – Soils and Construction</i>; iii) A description of the measures that would be employed to prevent the generation of dust during construction work; iv) A description of the proposed monitoring that would be carried out during construction, clearly indicating who would conduct the monitoring, how the results would be recorded; and, if any non-compliance is detected, what corrective action would be taken; and v) A description of procedures that would be implemented to ensure that the control measures are maintained at all times, and to address any non-compliance, should it occur. <p>(b) A Soil Contamination Protocol to manage soil contamination during site preparation and construction works. The Protocol shall detail procedures for the identification, isolation and removal of any contaminated soil, asbestos (including friable asbestos fibres) and munitions disturbed during site preparation and construction works, and detail measures for addressing any detected contamination.</p> <p>(c) A 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. This plan shall include:</p> <ul style="list-style-type: none"> i) A detailed plan showing the area and type of vegetation that is to be removed; ii) A description of the measures that would be implemented to protect the vegetation that would not be cleared (such as fencing); iii) Identification of plant material to be used for rehabilitation, and the densities and species mix for areas to be rehabilitated; and iv) A description of establishment methods, sequencing of tasks, maintenance and performance monitoring. 	2008 IEA	<p>This condition as assessed under the 2008 IEA as compliant and is considered closed out.</p> <p>(c) It is noted that ongoing vegetation management is now covered under the Site's OEMP to ensure that the remaining remnants are protected and rehabilitated beyond construction and throughout the life of the development.</p>	Closed Out	
3.4A	Prior to the commencement of construction of MOD 5, The Applicant shall prepare (and following approval implement) an updated CEMP for MOD 5 to the Satisfaction of the Certifying Authority. The CEMP shall be prepared in accordance with the requirements of Condition 3.3 and Condition 3.4.		Not triggered	Not triggered	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN (OEMP)					
3.5	<p>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 Secretary. This plan must describe the environmental management framework, practices and procedures that would be followed during operations, and include:</p> <ul style="list-style-type: none"> (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. (b) A description of the roles and responsibilities for all relevant employees involved in the operation of the development; (c) Overall environmental policies and principles that will be/are applied to the operation of the development; (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; (e) Management policies to ensure that environmental performance goals are met and to comply with the conditions of this approval; (f) Details of all landscaping to be undertaken on the site; (g) The various management plans required under this approval; and (h) Contingency measures should monitoring of environmental issues under this approval indicate that the development had had, or is having an adverse environmental impact. <p>Operations shall not commence until the Secretary has approved the OEMP. Upon receipt of the Secretary's approval, the Proponent shall supply a copy of the OEMP to the EPA and Council as soon as practicable.</p>	Random sample of two completed Workplace Inspection Forms for each year (2010 to 2018).	<p><u>Preparation</u></p> <p>An Operational Environmental Management Plan (OEMP) was prepared in 2007 to address the requirements of this Condition. The 2008 IEA assessed the consultation and approval process of the OEMP.</p> <p>The OEMP has not been updated since this time and contains out of date information. For example:</p> <ul style="list-style-type: none"> • It does not include current statutory and other obligations. The Project Approval has been modified and the EPL varied a number of times since 2007. The OEMP does not clearly list these approvals and licences or others including the Trade Waste Agreement or Dangerous Goods Notification. • The Compliance Management Statutory Register (Appendix 2) is out of date. • The description of the Roles and Responsibilities does not include the Environmental Representative. • The performance measures require reviewing to ensure they reflect current practices and requirements • Details of landscaping undertaken on site are not contained within the OEMP, but outlined in the CEMP and Vegetation Management Plan (VMP), both of which have not been sighted. • Details of contingency measures for adverse environmental impacts are not outlined in the OEMP, but have been outlined in the Groundwater Management Plan, Air Quality Management Plan and Site Emergency Management Plan. • The Environmental Policy was reviewed on 1 May 2018. The OEMP includes a superseded version of the Policy. <p>On the basis that the OEMP has not been maintained to reflect current operations and statutory requirements this condition has been assessed as non-compliant.</p> <p><u>Implementation</u></p> <p>Aspects of the OEMP were being implemented. For example, monthly inspections were being undertaken, Generally these were reported using the Workplace Inspection Form, however more recently notes / actions from the inspections were circulated via email.</p> <p>Annual Performance Reporting was being conducted (refer CoA 5.2).</p> <p>The format of the OEMP is not very user friendly and easy to implement. It is recommended that during the revision of the OEMP, thought is given to making the plan easier to implement.</p>	Non-compliant	<p>2018 IEA REC 08</p> <p>Update the OEMP to reflect current site operations, statutory requirements and management practices and provide to the Secretary for approval and the relevant agencies for their information.</p> <p>Refer also to the review of the adequacy of the OEMP in the main report.</p> <p>2018 IEA REC 09</p> <p>Re-commence using the Workplace Inspection Form to document site inspections as they provide evidence of items that were checked and found to be ok as well as noting issues.</p>

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
3.6	<p>The OEMP for the project shall include the following Management Plans:</p> <p>(a) 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"> i) Identification of all point and diffuse sources or air quality emissions associated with the project; 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; iii) A detailed monitoring program for the project; iv) Details of the contingency measures that would be implemented if non-compliance with air quality emissions criteria is detected or if offensive odour impacts occur; and v) A procedure for handling complaints. <p>(b) 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 Council and the RTA and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i) Restrictions to routes, where relevant; 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 Street/New England Highway intersection during peak hours; and iii) Details of what disciplinary actions would be taken should any non-compliance with the Transport Code of Conduct be detected. <p>(c) 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"> i) Details of baseline groundwater quality, as present prior to the commencement of construction of the development; ii) Groundwater assessment criteria for a broad range of parameters, including heavy metals, total nitrogen and total phosphorous; iii) Monitoring program of groundwater quality, including frequency of monitoring and monitoring locations; iv) Details of contingency measures and management options should monitoring of groundwater quality indicate that the development has had, or is having, and adverse effect on groundwater quality; 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. 	<p>Rutherford Resource Recovery & Recycling Facility – Air Quality Management Plan, 20 March 2007</p> <p>TPI NIMS SP 00 Transport Code of Conduct Rev 4 18.04.07</p>	<p>a. An Air Quality Management Plan (AQMP) was prepared in 2007 to address the requirements of this condition. The AQMP has not been revised since this time and does not reflect current operations and controls. On this basis this requirement is considered non-compliant. Refer also to review of adequacy of management plans in main section of the report.</p> <p>b. A Transport Code of Conduct was prepared in 2007. The 2017 AEMR states that the Driver Code of Conduct is no longer in use for the restriction of routes due to the intersection upgrade that allows access for B-doubles.</p> <p>c. Site prepared a Groundwater Management Plan (GMP) to address the requirements of this condition in 2006. The GMP was most recently updated on 15.08.17.</p> <p>The GMP states that it has been prepared to meet the requirements of the EPL. The auditors have reviewed the 2017 GMP against the requirements of this condition and found;</p> <ul style="list-style-type: none"> i. Details of baseline groundwater quality prior to commencement of construction have not been provided. ii. Groundwater assessment criteria were provided, including EPL monitoring requirements. iii. Groundwater monitoring program has been provided, and included monitoring parameters frequency and locations. iv. Details of contingency measures and mitigation options have not been included. v. Evidence of consultation with EPA (formerly DEC) and NSW Office of Water (formerly DNR) was not sighted by the auditors. <p>This condition has been assessed as non-compliant as the 2017 GMP does not include baseline monitoring data and contingency measures and mitigation options should monitoring of groundwater indicate that Cleanaway has exceeded the assessment criteria or is having an adverse impact on groundwater quality.</p>	Non-compliant	<p>Refer to recommendations relating to the adequacy of the AQMP in the main report</p> <p>Refer to recommendations relating to the adequacy of the GMP in the main report.</p>
3.7	<p>Within three months of the completion of each Independent Environmental Audit (see condition 4.4), the Proponent shall review and update the Operation Environmental Management Plan (OEMP) for the project, in consultation with the EPA and Council, and to the satisfaction of the Secretary.</p>	OEMP Rev 3, dated 11.05.07	The latest version of the OEMP (Rev 3) is dated 11.05.07 indicating that the OEMP was not updated following the 2008 IEA.	Non-compliant	Refer 2018 IEA REC 08

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Schedule 4: COMPLIANCE, AUDITING AND INDEPENDENT AUDITING					
COMPLIANCE					
4.1	Prior to the commencement of construction and operations, the Proponent shall certify in writing to the satisfaction of the Secretary , that it has compiled with all the applicable conditions of this approval.	2008 IEA	Closed out in 2008 IEA.	Closed Out	
AIR QUALITY AND NOISE VALIDATION REPORT					
4.2	<p>Within three months of commissioning operations at the site, the Proponent shall submit an Operational Air and Noise Validation Report for the project. This Report shall:</p> <ul style="list-style-type: none"> a) Be undertaken by a suitably qualified and experienced person(s); b) Assess whether the project is complying with the 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; c) Validate that the performance of the project reflects the assumptions and conclusions made in the Preferred Project Report and the <i>Environmental Assessment for Transpacific Refiners, Modifications to Existing Development</i>, dated 12 April 2007; 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 <i>Protection of the Environment Operations (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005</i> and the emissions inventory of the project as detailed in the <i>Environmental Assessment for Transpacific Refiners, Modifications to Existing Development</i>, dated 12 April 2007; 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; f) Identify what additional measures could be implemented to ensure compliance should any non-compliance be detected; and g) Provide details of any complaints received relating to air quality generated by the project, and action taken to respond to those complaints. 	<p>Operational Air and Noise Validation Report, Transpacific Refineries, ENSR, 10.12.08</p> <p>Notice of Variation of EPL dated 30.08.10</p>	<p>The Operational Air and Noise Validation Report was required to be submitted during the previous audit period however had not been completed at the time and therefore the condition was assessed as non-compliant.</p> <p>The requirement for the Operational Air and Noise Validation Report was also included as a PRP in the EPL (U1.1).</p> <p>The Operational Air and Noise Validation Report was prepared by ENSR in December 2008.</p> <p><u>Air</u></p> <p>The modelling undertaken as part of the validation report predicted exceedances beyond the property boundary for H₂S and Benzene. This contrasted to the predictions made in the EIS and was believed to be due to emissions from the light ends scrubber which was not expected to receive such an elevated level of H₂S. Subsequent to the modelling, Cleanaway implemented process alterations to improve the overall efficiency of the facility and eliminate the largest source of VOCs and H₂S. The report concluded that validation of the process alterations be undertaken by the scheduled quarterly stack testing.</p> <p>Refer to EPL Condition L3.1 for discussion of stack testing results. Monitoring indicates compliance since 2013.</p> <p><u>Noise</u></p> <p>Conclusions from the noise validation report indicate that whilst noise measurements exceeded the assessment criteria, noise from the facility was not discernible at remote receptors. Recommendations for additional work were suggested which were expected to demonstrate that Cleanaway complies with the assessment criteria.</p> <p>The PRP was removed from the EPL by variation dated 30.08.10. The variation notice stated that the Operational Air and Noise Validation Report was submitted to the EPA on the 22.12.08 to fulfil Condition U1. On the basis that the validation was undertaken, the report submitted and accepted by the EPA (as demonstrated by removal of the PRP from the EPL) this condition has been assessed as compliant.</p>	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
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 these measures, when these measures would be implemented, and how the effectiveness of these measures would be measured and reported to the Secretary and the EPA . The Proponent shall comply with all reasonable requirements of the Secretary or the EPA in respect to the findings presented in the Report. Any such works shall be completed within such time as the Secretary or the EPA may require.		Refer to 4.2 above. The Operational Air and Noise Validation Report was submitted to EPA and the PRP subsequently removed from the EPL suggesting EPA satisfaction with the report and any follow up actions. Evidence that the Operational Air and Noise Validation Report was submitted to the DPE was not available. On the basis that it could not be verified that the report was submitted to the DPE, this condition has been assessed as non-compliant. It is noted however that this was difficult given the time lapse since this report was completed and this audit.	Non-compliant	2018 IEA REC 10 Contact the DPE and request a copy of evidence that the Operational Air and Noise Validation report was provided to them for Cleanaway's record. Should the DPE not have evidence, submit the report to the DPE for its information.
4.3A	<p>Within six (6) months of the date of commencement of the modified operation, the Applicant must submit for the approval of the Secretary, an Operational Air and Odour Validation Report.</p> <p>The Report must:</p> <ul style="list-style-type: none"> a) Be prepared by a suitable qualified and experienced person(s) in consultation with the EPA; b) Include a revised Air Quality Impact Assessment of air quality impacts from the project 'as constructed' and include actual measured emissions; c) Assess conclusions made in the documents: <ul style="list-style-type: none"> i. "Air Quality Impact Assessment – transpacific Diversification Project 05_0037 Mod 5" prepared by AECOM and dated 15 March 2016; and ii. Any subsequent air quality impact assessment prepared for the facility 'as constructed'. d) Include a complete source emissions monitoring program for the facility to validate compliance with the Protection of the Environment Operations (Clean Air) Regulation 2010 ("the Regulation") and to validate the emissions inventory contained within the document "Air Quality Impact Assessment – Transpacific Diversification Project 05_0037 Mod 5" prepared by AECOM and dated 14 January 2016 or any subsequent emissions inventory prepared for the facility 'as constructed'. A copy of the results and recommendations of the source emissions monitoring program must be included in the Report. e) Identify what additional measures could be implemented to ensure compliance with the Regulation and approval conditions should any non-compliance be detected; and f) Provide details of any complaints received relating to air quality generated by the project and action taken to respond to those complaints. 		Not triggered	Not triggered	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
INDEPENDENT ENVIRONMENT AUDIT					
4.4	<p>Within one year of the commencement of operations, and then as directed by the Secretary, the Proponent shall commission an Independent Environmental Audit of the development. This audit must:</p> <ul style="list-style-type: none"> 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 Secretary; b) Be carried out in accordance with <i>ISO 14010 – Guidelines and General Principles for Environmental Auditing</i> and <i>ISO 14011 – Procedures for Environmental Auditing</i>, the Department's guideline <i>Hazardous Industry Planning Advisory Paper No. 5 – Hazard Audit Guidelines</i>; c) Assess whether the project is complying with the conditions of both this approval and the EPL for the project; d) Assess whether the project is being carried out with industry best practice; e) Review the adequacy of the Operation Environmental Management Plan for the project; compliance with the requirements of this approval, and other licences and approvals; and f) Recommend measures or actions to improve the environmental performance of the project, and/or the Operation Environmental Management Plan for the project. 	<p>TPR Independent Environmental Audit Report – 22 July 2008</p> <p>DPE letter requesting IEA dated 15.05.17</p> <p>DPE letter approving audit team dated 17.07.18</p> <p>Email from DPE extending timeframe dated 06.06.18</p> <p>Email requesting to replace the audit team dated 20.06.18</p>	<p>An IEA was undertaken in 2008 in accordance with the requirement to complete an audit within one year of commencement of operations.</p> <p>This audit was directed to be undertaken by the DPE by the 31.03.18 by letter dated 15.05.17. An extension was provided by the DPE by email dated 06.06.18 to the 20.06.18. Subsequently, Cleanaway requested approval from the DPE to replace the audit team and sought DPE approval of the AECOM audit team. The AECOM audit team which includes experts in the fields of odour and hazard was approved by the DPE in a letter dated 17.07.18.</p> <p>The environmental component of the Audit was undertaken in general accordance with AS/NZS ISO 19011:2003 – Guidelines for Quality and/or Environmental Management Systems Auditing, which by way of introduction has cancelled and replaced ISO 14010 – Guidelines and General Principles for Environmental Auditing and ISO 14011 – Procedures for Environmental Auditing.</p> <p>The Hazard Audit is provided in Appendix B.</p> <p>This Compliance Matrix documents the review of compliance with the requirements of the Project Approval and EPL. Refer also to Section 8 of the main report.</p> <p>A review of the adequacy of strategies and plans / programs is provided in Sections 5 and 6 of the main report.</p> <p>Recommendations for improvement are provided in this Compliance Matrix and in the main report and are summarised in Section 8 of the main report.</p>	Compliant	
4.5	<p>Within two months of commissioning this audit, or as otherwise agreed by the Secretary, the Proponent shall submit a copy of the audit report to the Secretary, with a response to any recommendations contained in the audit report.</p>	<p>DPE letter dated 17.07.18.</p>	<p>2008 IEA</p> <p>The previous IEA reported that the timing of the IEA submission was not going to be met and assessed the condition as non-compliant. A letter to the DPE was sighted stating that the IEA report was attached (dated 17.10.08). It is not clear whether this also included Cleanaway's response to the recommendations contained in the audit report. Given this condition was previously assessed as non-compliant for the 2008 audit, it is not being considered as within the scope of this 2018 audit.</p> <p>2018 IEA</p> <p>As per the requirements set out by the DPE in a letter dated 17.07.18 this IEA report must be submitted to the DPE within two months of the audit inspection date. The audit inspection was undertaken on the 10.09.18 – 11.09.18; therefore this report and Cleanaway's response to the recommendations must be submitted to the DPE on 11.11.18. Compliance of this audit will be assessed in the next IEA.</p>	Not triggered	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
4.6	Twelve months after the commencement of operations of the MOD 5 project and every three years thereafter, or at such intervals as the Secretary may agree, the Applicant shall carry out a comprehensive Hazard Audit of the proposed project and within one month of each audit submit a report to the Secretary for an approval. The audits shall be carried out at the Applicant's expense by a qualified person or team, independent of the project, approved by the Secretary prior to commencement of each audit. Hazard Audits shall be consistent with the Department of Planning's Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines'. The audit report must be accompanied by a program for the implementation of all recommendations made in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented.		Not triggered	Not triggered	
Schedule 5: ENVIRONMENTAL REPORTING					
INCIDENT REPORTING					
5.1	The Proponent shall notify the EPA and the Secretary 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 the EPA and the Secretary within seven days of the date on which the incident occurred.	'All_Incident' excel workbook	The Site reported that this condition was not triggered during the audit. A review of an excel extract of the Incident database indicated a number of incidents which were flagged as "External Authority Notified" These were classified as minor or insignificant and mostly related to air quality exceedances of EPL limits.	Not triggered	
ANNUAL PERFORMANCE REPORTING					
5.2	<p>The Proponent shall submit an Annual Environmental Management Report (AEMR) for the project to the OEH, Council, and the Department. The AEMR shall be submitted annually on the 22 December, unless otherwise approved by the Department, and include:</p> <ol style="list-style-type: none"> Details of compliance with the condition of this approval, and any other licences and approvals for the project; A list of variations obtained to approvals applicable to the development and to the site during the preceding twelve-month period; 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; Results of all environmental monitoring required under this approval and other approvals, including interpretations and discussion by a suitably qualified person; 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 incident; 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 0; Identification of trends in monitoring data over the life of the development to date; and Environmental management targets and strategies for the following twelve-month period, taking into account identified trends in monitoring results. 	<p>Transpacific Refiners, 2009, AEMR, 22 May 2008 – 21 May 2009.</p> <p>Transpacific Refiners, 2010, AEMR, 22 May 2009 – 21 May 2010.</p> <p>Transpacific Refiners, 2011, AEMR, 22 May 2010 – 28 September 2011.</p> <p>Transpacific Refiners, 2012, AEMR, 29 September 2011 – 28 September 2012.</p> <p>Transpacific Refiners, 2013, AEMR, 29 September 2012 – 28 September 2013.</p> <p>Transpacific Refiners, 2014, AEMR, 29 September 2013 – 28 September 2014.</p> <p>Transpacific Refiners, 2015, AEMR, 29 September 2014 – 28 September 2015.</p> <p>Cleanaway, 2016, AEMR, 29 September 2015 – 28 September 2016.</p>	<p>Annual Environmental Management Reports (AEMRs) were available for the periods 2008/2009, 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015/2016, 2016/2017.</p> <p>The 2010/2011 AEMR states that the reporting period for 2010/2011 was extended "<i>due to the change in the EPL and is in line with the DPE Notice of Modification dated 18.10.11</i>".</p> <p>Acknowledgement of submission of the AEMRs to the DPE has been provided for the following years:</p> <ul style="list-style-type: none"> 2012-2013, DPE letter dated 25.02.14 noted that they were generally satisfied with its form, content and presentation 2015-2016, DPE letter dated 15.05.17 – DPE requested the AEMR be resubmitted with additional information by 30.06.17 2016-2017, DPE acknowledgment email dated 22.12.17 Automated acknowledgment of receipt by EPA of 2016-17 AEMR dated 22.12.17 <p>The auditors sighted evidence that the 2016-17 AEMR was provided to DPE, EPA and Maitland Council, however could not verify that all AEMRs for the 10 year audit period had been submitted to the relevant authorities within the required timeframe and on this basis, this condition has been assessed as non-compliant.</p> <p>The AEMRs generally included the details required by this condition. However the following are noted:</p> <ul style="list-style-type: none"> A copy of the Complaints Register for the preceding 12 month period was included in the 2009 AEMR only. AEMRs from 2010 to 2017 reported nil complaints. The Site Odour Complaints Register 2008-2015 indicates the following complaints were received via the EPA for the period 2010-2017: <ul style="list-style-type: none"> 2010: 1 complaint 2012: 1 complaint 2014: 13 complaints 2015: 4 complaints 	Non-compliant	<p>2018 IEA REC 11</p> <p>Ensure evidence of submission of AEMRs to the relevant agencies and any comments received are maintained into the future.</p> <p>2018 IEA OFI 10</p> <p>Include further analysis of trends in the groundwater monitoring data over the life of the development to date within the AEMR.</p> <p>2018 IEA OFI 11</p> <p>Ensure the "Production Summary" provided in the AEMR reports the volume of waste oil processed per year to enable comparison against the limit specified by CoA 1.4</p> <p>2018 IEA OFI 12</p> <p>Include a discussion of complaints / enquiries forwarded by the EPA for investigation within the AEMR.</p>

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
		<p>Cleanaway, 2017, AEMR, 29 September 2016 – 28 September 2017.</p> <p>Email submission of 2016-17 AEMR to Council dated 22.12.17</p> <p>Email submission of 2016-17 AEMR to DPE dated 21.12.17 & acknowledgment from DPE dated 22.12.17</p> <p>Email submission of 2016-17 AEMR to EPA and automated acknowledgement dated 22.12.17.</p> <p>DPE letter dated 25.02.14</p> <p>DPE letter dated 15.05.17</p> <p>Complaints Procedure Site Odour Complaints Register 2008-2015 (Complaints register.xlsx)</p>	<p>In each instance the following response was provided in the register: "letter emailed with plant details and weather data for the date and time of the event". Selections of these letters to the EPA were sighted by the auditors. Cleanaway explained that these were complaints received by the EPA for the Rutherford Industrial Estate that the EPA was following up. Following provision of the required information to the EPA there was no further requests or follow up from the EPA. Cleanaway considers that these complaints were not related to its activities. It was reported that no complaints were received directly by the site.</p> <p>For transparency it is recommended that the AEMR include discussion of complaints / enquires received from the EPA for Cleanaway to investigate and the outcome of this investigation.</p> <p>A Production Summary is provided in Table 3. This lists the 'approved limit' as 40,000 tpa and includes the volume of 'product: waste lubricant oils'. It is unclear whether the reported figure is the base oil produced during the year or the waste oil processed. Given the limits specified by CoA 1.4 are to 'not process more than 40,000 tonnes of waste lubricant oils a year', Cleanaway should ensure it is reporting the volume of waste oil processed rather than base oil produced and make it clearer in the AEMR. It is understood that Cleanaway typically achieves a 97% yield and so these figures would not differ significantly.</p> <p>Air quality monitoring data is summarised in Tables 7-11. These include the EPL limit and mean of sample for each pollutant. As monitoring occurs yearly the mean is actually the result of the yearly testing. This could be clarified in the tables.</p> <p>Groundwater monitoring results for the year are summarised in Table 14. Section 7.3.2 provides a very brief discussion of trends. This does not discuss trends over the life of the development to date. No graphs including historical monitoring are provided (as they are for air quality monitoring). It is recommended that further analysis of trends in groundwater monitoring data since Cleanaway commenced operations is undertaken and provided in the AEMR. This is particularly important given the groundwater contamination at the site from historical land-use.</p>		

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
Schedule 6: COMMUNITY INFORMATION, CONSULTATION AND INVOLVEMENT					
ACCESS TO INFORMATION					
6.1	Subject to confidentiality, the Proponent shall make all documents required under this approval publicly available.	Cleanaway website	<p>This approval required the following documents to be prepared:</p> <ul style="list-style-type: none"> Condition 2.17 – Soil Contamination Validation Report prior to construction Condition 2.18 – Groundwater Contamination Assessment Condition 2.21A – Construction Safety Study Condition 3.5 – Operational Environmental Management Plan, including an Air Quality Management Plan, Groundwater Management Plan and Transport Code of Conduct Condition 4.2 – Operational Air and Noise Validation Report Condition 4.4 – Independent Environment Audit 2008 Condition 5.2 – Annual Environmental Management Reports <p>It was not easy to navigate the Cleanaway website to find the site specific environmental information. After being shown where they were located, the following reports were accessed via the Cleanaway website:</p> <ul style="list-style-type: none"> April 2016 Ground Water Monitoring February 2016 Rutherford Air Monitoring Annual Environmental Report 2017 Rutherford H2 Plant OEMP Pollution Incident Response Management Plan 2018 Environmental Policy Health and Safety Policy <p>This condition is considered non-compliant as a number of documents required under this condition, as listed above, are not publically available.</p>	Non-compliant	<p>2018 IEA REC 12</p> <p>Ensure all of the required documents are publicly available on the Cleanaway website. In particular:</p> <ul style="list-style-type: none"> Groundwater Management Plan Air Quality Management Plan Historic AEMRs (could seek guidance from the DPE regarding how far back to go) Independent Environmental Audits Operational Air and Noise Validation Report <p>2018 IEA OFI 13</p> <p>Consider making changes to the website to make it easier to find the required information. This could include grouping the information by site and having clearer headings for the environmental information.</p>

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
COMPLAINTS PROCEDURE					
6.2	<p>Prior to the commencement of construction, the Proponent shall establish community complaints system to the satisfaction of the Secretary. This system must include:</p> <ul style="list-style-type: none"> a) A 24-hour telephone number on which complaints about operations on the site may be registered; b) A postal address to which written complaints may be sent; and c) An email address to which electronic complaints may be transmitted, should the Proponent have email capabilities. d) The telephone number, the postal address and the email address shall be advertised in a newspaper circulating within the locality on at least one occasion prior to the commencement of construction of each stage of the development. These details must also be displayed on a sign near the entrance to the site, in a position that is clearly visible to the public and on the Proponent's internet site, should one exist. The telephone number, post address and email address must be maintained throughout the life of the development. 	2008 IEA	<p>The 2008 IEA verified that the community complaints system was established to the satisfaction of the DPE prior to the commencement of construction.</p> <p>This audit assessed the ongoing operation of the complaints system.</p> <p>A sign was located at the site entrance displaying the complaints contact information including an 1800 telephone number, postal address and email address.</p> <p>The complaints telephone number was tested on the day of the audit, and was found to be disconnected. It was reported that the telephone number was functioning in the months prior to the audit however it could not be determined how long the number had been disconnected. Cleanaway commenced investigation of the issue and in the meantime temporarily modified the sign at the entrance to include the company-wide community hotline that is advertised on Cleanaway's website.</p> <p>On the basis that the displayed telephone number was not operational at the time of the audit and for an unknown period prior to the audit, this condition has been assessed as non-compliant. It is noted however that should a complainant wished to have registered a complaint during this time; they could have done so via email or via the community hotline advertised on Cleanaway's website and that this would have been directed to Cleanaway Rutherford management for investigation.</p>	Non-compliant	<p>2018 IEA REC 13</p> <p>Ensure a valid 24-hour telephone number is displayed at the entrance to the site</p>
6.3	<p>The Proponent must record details of all complaints received about the project in an up-to-date Complaints Register. This register must record, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) The date and time, where relevant, of the complaint; b) The means by which the complaint was made (telephone, mail or email); c) Any personal details of the complainant that were provided, or if no details were provided, a note to that effect; d) The nature of the complaint; e) Any action(s) taken by the Proponent in relation to the complaint, including any follow-up contact with the complainant; and f) If no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken. <p>The Complaints Register must be made available for inspection by the Secretary upon request.</p>	<p>Transpacific Industries Group Complaints Procedure (Rev 1 dated 06.10.06)</p> <p>TPR Complaints Register (Complaints Register.xls)</p> <p>Site Odour Complaints Register 2008-2015 (Complaints register.xlsx)</p> <p>Extract from the Vault July 2010-Aug 2018 (All_Incident.xlsx)</p>	<p>A Transpacific Industries Group Complaints Procedure was available dated 06.10.06. This Procedure referred to the National Integrated Management System which is no longer in force.</p> <p>The Site provided a copy of an excel spreadsheet titled 'TPR Complaints Register' which included fields to record the required information. No complaints were logged in this register since 2007. It was reported that this register is no longer maintained and that complaints are now logged in the incident management system, the 'Vault' to facilitate tracking and close out.</p> <p>An extract of all incidents recorded in the Vault for the audit period was reviewed by the auditors. An incident category titled 'complaint' was observed for enquiries received by the EPA. Corrective actions were recorded for investigating and responding to the EPA. Information recorded in the Vault included most of the required information. Categories were not specifically available for means by which the complaint was made and complainant's personal details however this information could be included within the description.</p> <p>The Site reported that no complaints were received directly by Cleanaway via their public complaints telephone number since 2007. For the period 2008-2015, complaints / enquiries received via the EPA for Cleanaway's investigation were recorded in a separate register. It was reported that any such enquiries would now be recorded in the Vault.</p> <p>It was reported that the Secretary has not requested to see the Complaints Register. It is noted however that the complaints register for the year is required to be included within the AEMR which is provided to the DPE.</p>	Compliant	<p>2018 IEA OFI 14</p> <p>Update the Complaints Procedure (2006) to reflect that complaints are now managed and recorded using the Vault.</p> <p>2018 IEA OFI 15</p> <p>Include categories within the Vault for recording the means by which a complaint is made and the complainant's personal details.</p>

Appendix A2 Audit Checklist Environment Protection Licence 12555

Environment Protection Licence 12555

AUDIT CHECKLIST																																									
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																																				
1 ADMINISTRATIVE																																									
A1 What the licence authorises and regulates																																									
A1.1	<p>This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table><tr><th>Scheduled Activity</th><th>Fee Based Activity</th><th>Scale</th></tr><tr><td>Chemical storage</td><td>Chemical storage waste generation</td><td>> 100 T annual volume of waste generated or stored</td></tr><tr><td>Petroleum products and fuel production</td><td>Petroleum products and fuel production</td><td>> 10000 - 200000 T annual production capacity</td></tr></table>	Scheduled Activity	Fee Based Activity	Scale	Chemical storage	Chemical storage waste generation	> 100 T annual volume of waste generated or stored	Petroleum products and fuel production	Petroleum products and fuel production	> 10000 - 200000 T annual production capacity	<ul style="list-style-type: none">Production.xlsx spreadsheetCatalyst / Filter Stocktake 31.08.18	Refer to Condition of Approval 1.4 for discussion of production limits. Refer to L4.1 for discussion of chemical waste storage.	Compliant																												
Scheduled Activity	Fee Based Activity	Scale																																							
Chemical storage	Chemical storage waste generation	> 100 T annual volume of waste generated or stored																																							
Petroleum products and fuel production	Petroleum products and fuel production	> 10000 - 200000 T annual production capacity																																							
A2 Premises or Plant to which this Licence Applies																																									
A2.1	<p>The licence applies to the following premises:</p> <table><tr><th>Premises Details</th></tr><tr><td>CLEANAWAY REFINERS PTY LTD</td></tr><tr><td>11 KYLE STREET</td></tr><tr><td>RUTHERFORD</td></tr><tr><td>NSW 2320</td></tr><tr><td>LOT 223 DP 1037300</td></tr></table>	Premises Details	CLEANAWAY REFINERS PTY LTD	11 KYLE STREET	RUTHERFORD	NSW 2320	LOT 223 DP 1037300		The street numbers have changed and the site's official address is now 41 Kyle Street, Rutherford. It is noted the site's physical premises has not changed.	Noted	2018 IEA OFI 16 Update the address in the next revision of the EPL.																														
Premises Details																																									
CLEANAWAY REFINERS PTY LTD																																									
11 KYLE STREET																																									
RUTHERFORD																																									
NSW 2320																																									
LOT 223 DP 1037300																																									
A3 Other Activities																																									
A3.1	<p>This licence applies to all other activities carried on at the premises, including:</p> <ul style="list-style-type: none">- Chemical storage		Noted	Noted																																					
A4 Information Supplied to the EPA																																									
A4.1	<p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <ul style="list-style-type: none">(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.		The Site reported that no works and activities outside those specified in the EPL application have been undertaken during the audit period. The original licence application was not sighted. No works and activities outside those specified in EPL 12555 were observed during the site inspection.	Compliant																																					
2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND																																									
P1 Location of monitoring/discharge points and areas																																									
P1.1	<p>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.</p> <table><tr><th colspan="4">Air</th></tr><tr><th>EPA identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr><tr><td>2</td><td>Discharge to air Air emissions monitoring</td><td>Discharge to air Air emissions monitoring</td><td>3.0 MW Boiler stack</td></tr><tr><td>3</td><td>Discharge to air Air emissions monitoring</td><td>Discharge to air Air emissions monitoring</td><td>0.2 MW Boiler stack</td></tr><tr><td>4</td><td>Discharge to air</td><td>Discharge to air</td><td>Flare</td></tr><tr><td>5</td><td>Air emissions monitoring</td><td>Air emissions monitoring</td><td>Emissions from light ends scrubber (vapour recovery unit)</td></tr><tr><td>19</td><td>Discharge to Air</td><td>Discharge to Air</td><td>Stack serving the fired heaters</td></tr><tr><td>20</td><td>Discharge to Air</td><td>Discharge to Air</td><td>Hydrogen Reformer Burner</td></tr><tr><td>21</td><td>Weather Monitoring</td><td></td><td>Rooftop near southwest corner of the control room</td></tr></table>	Air				EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	2	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	3.0 MW Boiler stack	3	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	0.2 MW Boiler stack	4	Discharge to air	Discharge to air	Flare	5	Air emissions monitoring	Air emissions monitoring	Emissions from light ends scrubber (vapour recovery unit)	19	Discharge to Air	Discharge to Air	Stack serving the fired heaters	20	Discharge to Air	Discharge to Air	Hydrogen Reformer Burner	21	Weather Monitoring		Rooftop near southwest corner of the control room	<ul style="list-style-type: none">Annual Returns for the reporting periodSource Emissions Monitoring report, AMG, dated 26.02.18Source Emissions Monitoring report, AMG, dated 30.01.17Source Emissions Monitoring report, AMG, dated 21.01.15	As discussed in the conditions referenced below monitoring is undertaken at the discharge / monitoring points included in this condition. Refer to EPL Condition L3.2 for a discussion of Discharge Points (DP) DP2, DP3, DP5, DP19 and DP20. Refer to EPL Condition M5.1 for a discussion of the weather station (DP21). Refer to EPL Condition O6 for a discussion of monitoring at Point 4. The discharge points were observed during the audit site inspection.	Compliant	
Air																																									
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																																						
2	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	3.0 MW Boiler stack																																						
3	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	0.2 MW Boiler stack																																						
4	Discharge to air	Discharge to air	Flare																																						
5	Air emissions monitoring	Air emissions monitoring	Emissions from light ends scrubber (vapour recovery unit)																																						
19	Discharge to Air	Discharge to Air	Stack serving the fired heaters																																						
20	Discharge to Air	Discharge to Air	Hydrogen Reformer Burner																																						
21	Weather Monitoring		Rooftop near southwest corner of the control room																																						

AUDIT CHECKLIST																													
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																								
P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.		Noted	Noted																									
P1.3	<div>The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.</div> <table><tr><th colspan="4">Water and land</th></tr><tr><th>EPA Identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Location Description</th></tr><tr><td>8</td><td>Groundwater quality monitoring</td><td></td><td>Bore MW21 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.</td></tr><tr><td>10</td><td>Groundwater quality monitoring</td><td></td><td>Bore MW12 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.</td></tr><tr><td>22</td><td>Groundwater quality monitoring</td><td></td><td>Bore MW15 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008. DOC17/203820</td></tr><tr><td>23</td><td>Groundwater quality monitoring</td><td></td><td>Bore MW19 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008. DOC17/203820</td></tr></table>	Water and land				EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description	8	Groundwater quality monitoring		Bore MW21 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.	10	Groundwater quality monitoring		Bore MW12 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.	22	Groundwater quality monitoring		Bore MW15 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008. DOC17/203820	23	Groundwater quality monitoring		Bore MW19 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008. DOC17/203820	<div><ul style="list-style-type: none">Cleanaway, Annual Groundwater Monitoring Event, April 2016, dated 19.04.162017 – Annual Groundwater Report, RCA Australia, dated 22.12.1711170 – Groundwater SDS all samples.xlsx</div>	<div>It is noted that the EPL was varied on 16.06.17 to remove three groundwater monitoring points (EPL Point 7 (MW18) , EPL Point 8 (MW17), and EPL Point 9 (MW20)) from the licence and replace them with two alternative groundwater monitoring points (EPL Point 22 (MW15) and EPL Point 23 (MW19)).</div> <div>A number of monitoring wells were sighted during the audit site inspection. Annual monitoring reports sighted indicated that the groundwater monitoring points referenced in the EPL were sampled.</div>	Compliant	
Water and land																													
EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description																										
8	Groundwater quality monitoring		Bore MW21 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.																										
10	Groundwater quality monitoring		Bore MW12 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.																										
22	Groundwater quality monitoring		Bore MW15 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008. DOC17/203820																										
23	Groundwater quality monitoring		Bore MW19 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008. DOC17/203820																										
3 LIMIT CONDITIONS																													
L1 Pollution of Waters																													
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.		Refer to CoA 2.15.	Compliant																									
L2 Load Limits																													
L2.1	The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.		Noted refer to EPL Condition L2.2 for assessment of compliance.	Noted																									

AUDIT CHECKLIST																											
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																						
L2.2	<div>The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.</div> <table><thead><tr><th>Assessable Pollutant</th><th>Load limit (kg)</th></tr></thead><tbody><tr><td>Arsenic (Air)</td><td></td></tr><tr><td>Benzene (Air)</td><td>26.00</td></tr><tr><td>Benzo(a)pyrene (equivalent) (Air)</td><td>4.60</td></tr><tr><td>Fine Particulates (Air)</td><td>1360.00</td></tr><tr><td>Hydrogen Sulfide (Air)</td><td>64.00</td></tr><tr><td>Lead (Air)</td><td></td></tr><tr><td>Mercury (Air)</td><td></td></tr><tr><td>Nitrogen Oxides (Air)</td><td>10000.00</td></tr><tr><td>Sulfur Oxides (Air)</td><td>46000.00</td></tr><tr><td>Volatile organic compounds (Air)</td><td>850.00</td></tr></tbody></table> <div>Note: An assessable pollutant is a pollutant which affects the license fee payable for the license.</div>	Assessable Pollutant	Load limit (kg)	Arsenic (Air)		Benzene (Air)	26.00	Benzo(a)pyrene (equivalent) (Air)	4.60	Fine Particulates (Air)	1360.00	Hydrogen Sulfide (Air)	64.00	Lead (Air)		Mercury (Air)		Nitrogen Oxides (Air)	10000.00	Sulfur Oxides (Air)	46000.00	Volatile organic compounds (Air)	850.00	<ul style="list-style-type: none">2015, 2016 & 2017 Annual ReturnsSource Emissions Monitoring, AMG, 26.02.18, 30.01.17, 22.01.16Stack Emissions Testing Report Annual Round for Return Year 2015, Pacific Environment 21.01.15Load Calculation Protocol (June 2009), EPA	<div>The Annual Return requires the Actual Load (calculation method) to be provided for each of the assessable pollutants. The 2017 Annual Return listed the following calculation methods:</div> <ul style="list-style-type: none">Arsenic: Source monitoring Method TM-15Benzene: Source monitoring Method TM-34Benzo(a)pyrene (equivalent) Source monitoring Method OM-6Fine particulates: Source monitoring Method TM-15Hydrogen sulphide: Source monitoring Method TM-15Lead: Source monitoring Method TM-15Mercury: Source monitoring Method TM-15Nitrogen Oxides: Source monitoring Method TM-11Sulfur Oxides: Source monitoring Method TM-3Volatile organic compounds: Source monitoring Method TM-34 <div>A detailed review against the EPA's Load Calculation Protocol was not undertaken. However a review of <i>Table 35 Petroleum and fuel production: Petroleum products and fuel production – Acceptable load calculation methods</i> indicated that Source Monitoring was an acceptable method for all assessable air pollutants.</div> <div>Source monitoring was being undertaken by external consultants, in recent years (2015-2017) by Assured Monitoring Group (AMG).</div>	Compliant	
Assessable Pollutant	Load limit (kg)																										
Arsenic (Air)																											
Benzene (Air)	26.00																										
Benzo(a)pyrene (equivalent) (Air)	4.60																										
Fine Particulates (Air)	1360.00																										
Hydrogen Sulfide (Air)	64.00																										
Lead (Air)																											
Mercury (Air)																											
Nitrogen Oxides (Air)	10000.00																										
Sulfur Oxides (Air)	46000.00																										
Volatile organic compounds (Air)	850.00																										
L3 Concentration Limits																											
L3.1	For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.		Noted. Refer to EPL L3.2 for assessment of compliance with limits.	Noted																							

AUDIT CHECKLIST

Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																																							
L3.2	<div>Air Concentration Limits</div> <div><div>POINT 2,3,20</div><table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>100 percentile concentration limit</th></tr></thead><tbody><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>10</td></tr><tr><td>Nitrogen Oxides</td><td>milligrams per cubic metre</td><td>350</td></tr><tr><td>Solid Particles</td><td>milligrams per cubic metre</td><td>10</td></tr></tbody></table></div> <div><div>POINT 5</div><table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>100 percentile concentration limit</th></tr></thead><tbody><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>20</td></tr></tbody></table></div> <div><div>POINT 19</div><table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>100 percentile concentration limit</th></tr></thead><tbody><tr><td>Solid Particles</td><td>milligrams per cubic metre</td><td>50</td></tr><tr><td>Hydrogen Sulfide</td><td>milligrams per cubic metre</td><td>5</td></tr><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>10</td></tr><tr><td>Nitrogen Oxides</td><td>milligrams per cubic metre</td><td>350</td></tr><tr><td>Sulfuric acid mist and sulfur trioxide (as SO3)</td><td>milligrams per cubic metre</td><td>100</td></tr><tr><td>Sulphur dioxide</td><td>milligrams per cubic metre</td><td>1360</td></tr></tbody></table></div>	Pollutant	Units of measure	100 percentile concentration limit	Volatile organic compounds	milligrams per cubic metre	10	Nitrogen Oxides	milligrams per cubic metre	350	Solid Particles	milligrams per cubic metre	10	Pollutant	Units of measure	100 percentile concentration limit	Volatile organic compounds	milligrams per cubic metre	20	Pollutant	Units of measure	100 percentile concentration limit	Solid Particles	milligrams per cubic metre	50	Hydrogen Sulfide	milligrams per cubic metre	5	Volatile organic compounds	milligrams per cubic metre	10	Nitrogen Oxides	milligrams per cubic metre	350	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	100	Sulphur dioxide	milligrams per cubic metre	1360	<ul style="list-style-type: none">EPA Warning Notice, Dated 27.04.10EPL Variation dated 30.08.10Annual Returns for the reporting periodSource Emissions Monitoring report, AMG, dated 26.02.18Source Emissions Monitoring report, AMG, dated 30.01.17Source Emissions Monitoring report, AMG, dated 22.01.16	<p>Over the audit period (11 June 2008 to 11 September 2018) EPL 12555 has be varied a number of times changing location of monitoring points, the pollutants monitored/concentration limits and the frequency of monitoring. Variations have often been done following completion of the Pollution Reduction Programs, for example preparation and submission of the following reports:</p> <ul style="list-style-type: none">Operational Air and Noise Validation Report, dated 10 December 2008Comprehensive Odour Audit Report, dated 10 November 2008Phase 1 and 2 Environmental Site Assessment, dated 8 July 2008 <p>A review of the EPL Annual Returns indicated that the Site had a number of exceedances of EPL Conditions L3.1, L3.3 (now L3.2), M2.1 (now M2.2). These exceedances were related predominately to exceedance of pollutant limits at Discharge Point 19.</p> <p>The Site has reported no exceedance of EPL monitoring limits since September 2013.</p> <p>The auditors reviewed the annual source emissions monitoring reports prepared by Assured Monitoring Group (AMG) for 2017, 2016, 2015 and noted the following:</p> <ul style="list-style-type: none">The annual monitoring for 2018 had not been undertaken at the time of the audit.2017 Annual Monitoring was conducted from the 27.11.7 to 30.11.17. No exceedances of the concentration limits in this condition were identified.2016 Annual Monitoring was conducted from the 5.12.16 to 9.12.16. No exceedances of the concentration limits in this condition were identified.2016 Annual Monitoring was conducted from the 5.12.16 to 9.12.16. No exceedances of the concentration limits in this condition were identified.In 2015 the Site was required under the EPL to conduct quarterly sampling of air concentration limits. Cleanaway provided the auditors a copy of each quarterly report for 2015. For the purpose of this audit only the annual report for 2015 has been reviewed by the auditors (not the quarterly reports) as this reflects the current EPL condition. 2015 Annual Monitoring was conducted from the 3.11.15 to 6.11.15. No exceedances of the concentration limits in this condition were identified. <p>This condition has been assessed as non-compliant based on exceedances for concentration limits between 2008 and 2013. It is noted that in recent years the Site has not recorded any exceedances of the EPL concentration limits demonstrating that measures implemented since 2008 have been effective in improving air quality. On this basis no recommendations are considered necessary.</p>	Non-compliant	<div>Nil</div> <div>Corrective actions already implemented.</div>
Pollutant	Units of measure	100 percentile concentration limit																																										
Volatile organic compounds	milligrams per cubic metre	10																																										
Nitrogen Oxides	milligrams per cubic metre	350																																										
Solid Particles	milligrams per cubic metre	10																																										
Pollutant	Units of measure	100 percentile concentration limit																																										
Volatile organic compounds	milligrams per cubic metre	20																																										
Pollutant	Units of measure	100 percentile concentration limit																																										
Solid Particles	milligrams per cubic metre	50																																										
Hydrogen Sulfide	milligrams per cubic metre	5																																										
Volatile organic compounds	milligrams per cubic metre	10																																										
Nitrogen Oxides	milligrams per cubic metre	350																																										
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	100																																										
Sulphur dioxide	milligrams per cubic metre	1360																																										

AUDIT CHECKLIST																																			
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																														
L4 Waste																																			
L4.1	<p>The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled “Waste” and meeting the definition, if any, in the column titled “Description” in the table below.</p> <p>Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled “Activity” in the table below. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits” in the table below.</p> <p>This condition does not limit any other conditions in this licence.</p> <table><tr><th>Code</th><th>Waste</th><th>Description</th><th>Activity</th><th>Other Limits</th></tr><tr><td>J100</td><td>Waste mineral oils unfit for their original intended use</td><td></td><td>Waste processing (non-thermal treatment)</td><td>Must not exceed 40,000 tonnes per year</td></tr><tr><td>J120</td><td>Waste oil/hydrocarbons mixtures/emulsions in water</td><td></td><td>Waste storage</td><td>Must not exceed 120 tonnes at any one time</td></tr><tr><td>D210</td><td>Spent catalyst</td><td></td><td>Waste storage</td><td>must not exceed 120 tonnes at any time</td></tr><tr><td>NA</td><td>General or Specific exempted waste</td><td>Waste that meets all the conditions of a resource recovery exemption under Clause 92 of the Protection of the Environment Operations (Waste) Regulation 2014</td><td>As specified in each particular resource recovery exemption</td><td>NA</td></tr><tr><td>NA</td><td>Waste</td><td>Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time</td><td>-</td><td>NA</td></tr></table>	Code	Waste	Description	Activity	Other Limits	J100	Waste mineral oils unfit for their original intended use		Waste processing (non-thermal treatment)	Must not exceed 40,000 tonnes per year	J120	Waste oil/hydrocarbons mixtures/emulsions in water		Waste storage	Must not exceed 120 tonnes at any one time	D210	Spent catalyst		Waste storage	must not exceed 120 tonnes at any time	NA	General or Specific exempted waste	Waste that meets all the conditions of a resource recovery exemption under Clause 92 of the Protection of the Environment Operations (Waste) Regulation 2014	As specified in each particular resource recovery exemption	NA	NA	Waste	Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time	-	NA	<ul style="list-style-type: none">Base Oil Production.xlsxInventory Stock Spreadsheet 01.2016.xlsxInventory Stock Spreadsheet 09.2017.xlsxInventory Stock Spreadsheet 01.2018.xlsxCatalyst & Filter Stocktake 20180901.xlsx	<p>Cleanaway considers that the feed oil received at Site is not classified as J100 for the purpose of tracking as it has been pre-treated / processed at other Cleanaway liquid waste facilities into a refined used fuel oil. The Cleanaway Rutherford facility further polishes this used fuel oil into a higher grade base oil. Site reported that this is the only ‘waste’ received on site. The auditors sighted the Inventory Stock spreadsheet from January 2016, September 2017, January 2018, which showed the document number and description of where the material came from and the feedstock descriptor (location and viscosity).As discussed under CoA 1.4, feed oil received for treatment was below 40,000 tonnes.</p> <p>The following waste is stored on site:</p> <p><u>Waste Oil</u> The Site has two 1,000 L IBCs on site for storage of oily water (J120) from the puraceptor (predominately) and one 1,000 L IBC of waste oil which is generated during the refinery process (e.g. from product testing) which gets emptied back into the feedtank for re-processing. These waste storage activities are well below the storage limits specified.</p> <p><u>Stocktake Catalyst and Filters</u></p> <p>Waste chemical storage comprises of spent catalyst (Class 4.2 Substances Liable to Spontaneous Combustion). Spent catalyst is stored in drums which are housed in modified shipping containers. Cleanaway undertakes monthly stocktake of spent catalyst recording the number of the drums stored on site. The stocktake undertaken on the 30.08.18 recorded that 113.7 tonnes of spent catalyst was stored on site. The Stocktake form tracks compliance against the 120 tonne limit. The site reported that is does not accept any other waste materials to site. No waste which looked like it may have been generated outside the premises was observed during the Site inspection.</p>	Compliant	<p>2018 IEA OFI 17</p> <p>Seek clarification from the EPA whether the feed oil received on site for processing should be included within this condition of the EPL as J100</p>
Code	Waste	Description	Activity	Other Limits																															
J100	Waste mineral oils unfit for their original intended use		Waste processing (non-thermal treatment)	Must not exceed 40,000 tonnes per year																															
J120	Waste oil/hydrocarbons mixtures/emulsions in water		Waste storage	Must not exceed 120 tonnes at any one time																															
D210	Spent catalyst		Waste storage	must not exceed 120 tonnes at any time																															
NA	General or Specific exempted waste	Waste that meets all the conditions of a resource recovery exemption under Clause 92 of the Protection of the Environment Operations (Waste) Regulation 2014	As specified in each particular resource recovery exemption	NA																															
NA	Waste	Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time	-	NA																															
L5 Noise Limits																																			
L5.1	<p>Noise generated at the premises must not exceed:</p> <p>a) 37dB(A) LAeq(15 minute) at (Receptor B);</p> <p>b) 35 dB(A) LAeq(15 minute) at (Receptors A to P excluding B); and</p> <p>c) 49 dB(A) LA1(1 minute) at Receptors A to P during the hours 10pm to 7am Monday to Saturday and 10pm to 8am Sunday at all times, except as expressly provided by this licence.</p> <p>Where LAeq means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.</p> <p>Where Receptors A to P are identified in the document “Rutherford Resource Recovery and Recycling Facility, Environmental Assessment, Volume 3 Appendix K” prepared by Parsons Brinkerhoff and dated January 2006.</p>		Refer to CoA 2.20.	Compliant																															
L5.2	To determine compliance with condition(s) L5.1 noise limits must be measured at, or computed for, at the identified noise sensitive receptor. A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the "Environmental Noise Management - NSW Industrial Noise Policy (January 2000)".		As discussed under CoA 2.20, noise monitoring has not been undertaken during the audit period therefore this condition has not been triggered.	Not triggered																															
L6 Potentially Offensive Odour																																			
L6.1	<p>No condition in this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.</p> <p><i>Note: Section 129 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.</i></p>		Refer to CoA 2.5.	Compliant																															

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
L7 Other Limit Conditions					
L7	<i>Note: The licensee must comply with the conditions as specified in this licence or where no specific conditions are outlined in this licence, the licensee must comply with the "Chemical Control Order in Relation to Materials and Wastes Containing Polychlorinated Biphenyl, 1997".</i>		The Site reported that it does not have any materials or waste containing PCBs on Site.	Not triggered	
4 OPERATING CONDITIONS					
O1 Activities must be carried out in a competent manner					
O1.1	Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	<ul style="list-style-type: none"> Vault - Training Register 	A training register is located in the Vault system. The Health & Safety Business Partner maintains the register. The register identifies the training competencies assigned and completed by each employee. The auditors were shown the training register which listed training competencies for example forklift, volatile organic compounds and high risk work. The auditors were also shown the register of fire training undertaken. The Site reported that Plant Operators are assigned a training package and prior to conducting works they must be signed off as competent.	Compliant	
O2 Maintenance of Plant and Equipment					
O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	<ul style="list-style-type: none"> CWYR Rutherford Equipment List Maintenance. xls 	The site operates 24 hours per day, seven days per week and is controlled via the Main Control Room. The Main Control Room includes monitoring of site conditions and weather forecasts and operating controls as required. Planned Maintenance is managed using an Excel workbook 'CWYR Rutherford Equipment List Maintenance' which lists the plant and equipment, the frequency of the routine maintenance, date maintenance was last undertaken and when it is due (amongst other things). The spreadsheet includes over 800 pieces of equipment which are grouped into categories including instrumentation, electrical, mechanical, building, safety, fire system and lifting equipment. The following equipment with environmental duties were observed to be included in the spreadsheet: SOX scrubber, flare (annually), weather station (annually), VOC scrubber (annual), stormwater pit silt trap (26 weeks - last done 18.07.18).	Compliant	
O2.2	Waste oil and other non-standard fuels must not be burnt or used as fuel on the site.		Refer to Condition of Approval 2.13.	Compliant	
O2.3	All boilers must be fuelled only by natural gas.		Refer to Condition of Approval 2.13.	Compliant	
O3 Emergency Response					
O3.1	Within 3 months of the date of the issue of this licence, the licensee must develop, or update, an emergency response plan which documents the procedures to deal with all types of incidents (e.g. spill, explosions or fire) that may occur at the premises or outside of the premises (e.g. during transfer) which are likely to cause harm to the environment.	<ul style="list-style-type: none"> Cleanaway Site Emergency Management Plan, dated 11.08.17 Pollution Incident Response Management Plan, dated 06.06.14 	A Site Emergency Management Plan, Safety Data Sheets, and Pollution Incident Response Plan are stored in an airtight container on the entrance gate to the Site. These plans are accessible by anyone inside or outside the Site boundaries. The Site Emergency Management Plan was last reviewed and updated on 11.08.17. The Pollution Incident Response Management Plan was last reviewed and updated on 29.06.18.	Compliant	
O4 Processing and Management					
O4.1	The licensee must ensure that any liquid and/or non-liquid waste for treatment, processing, reprocessing or disposal at the premises is assessed and classified in accordance with the Waste Classification Guidelines produced by the Department of Environment, Climate Change and Water (DECCW) as in force from time to time.	<ul style="list-style-type: none"> Inventory Stock Spreadsheet 01.2016.xlsx Inventory Stock Spreadsheet 09.2017.xlsx Inventory Stock Spreadsheet 01.2018.xlsx 	The only waste processed at the premises was refined used fuel oil. No waste is disposed of at the premises. All waste generated at the site is taken off-site for disposal.	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
O4.2	The licensee must ensure that waste identified for recycling is stored separately from other waste.		Spent catalyst was being stored separately in modified shipping containers awaiting completion of the approval process for it to be sent to France for reclamation. Waste oil generated through the process was stored in a separate IBC for transfer back into the feed tank for pre-processing. The office area was observed to have separate bins for paper, comingled recycling and landfill. Waste stockpiles were observed near the former dye and finishing warehouse that were left behind by the previous owners (refer photo 5-24). This included used pallets and timber which could be recycled. It was reported that Cleanaway had attempted to get the previous owners to remove this however without success.	Compliant	2018 IEA OFI 18 Consider removing the dumped waste inherited from the previous owners located at the back of the property near the former dye and finishing warehouse. During this process separate the waste identified for recycling where possible.
O4.3	The licensee must not use or operate, or cause to be used or operated, any fuel burning equipment or industrial plant in or on the premises unless that equipment or plant is fitted with the control equipment prescribed in clauses 50(2), 50(3), 50(4), 50(5), 50(6), 50(7), 50(8), 51(2), 51(3), 51(4), 51(5), 51(6), 52(2), 52(3), 52(4), 52(5), 52(6), 53(2), 53(3), 53(4), 53(5), 54(2), 54(3) and 54(4) of Part 5 of the Protection of the Environment Operations (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005.	<ul style="list-style-type: none"> Observations Flare Log 09.04.18 to 02.05.18 KPI Report 10.10.17 	The regulation referred to is no longer in force and was repealed when the Clean Air Regulation was promulgated in 2010. Notwithstanding the storage tanks at the Cleanaway facility are controlled with vapour reduction unit to capture and control emissions from the tanks and the loading / unloading area. The light end capture system (nitrogen blanketing and vapour capture are scrubbed by both the activated charcoal system prior to the VOC wet scrubber. The flare was only used when the system was upset as shown on the Flare Log.	Compliant	2018 IEA OFI 19 Within the next EPL variation, update this condition to refer to the current Regulations.
O5 Waste Management					
O5.1	All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.		Refer to CoA 2.24	Compliant	
O5.2	The licensee must ensure that suitable measures (e.g. high/low alarms, control valves with interlock control, one way valves) are installed on all tanks, ponds or clarifiers and associated pipes and hoses to prevent the spillage of waste.	<ul style="list-style-type: none"> As Built Process Flow Diagram- Peroxide IBC, Puraceptor and Dosing Pump (TPR-15-P&ID-001) 	Bunds drain to interceptor pits which are pumped through the puraceptor to a balance tank. The balance tank employs high level and low level switches. The effluent pumps were interlocked into the high level switch. It was reported that in the event that the puraceptor i overflows, the overflow drains back to the interceptor pit for reprocessing. Waste oil was stored in IBCs within the bunded area attached to the puraceptor via flexi hoses.	Compliant	
O6 Other Operating Conditions					
O6.1	The flare must not operate except during start up, shutdown and permissible process upsets.		Refer to Condition of Approval 2.11.	Compliant	
O6.2	Process upsets must not exceed 2% of the total process operating time during any 12 month period.		Refer to Condition of Approval 2.11.	Compliant	
O6.3	There must be no visible emission from Point 4 other than for a total period of no more than 5 minutes in any 2 hour period.	<ul style="list-style-type: none"> Flare Log 09.04.18 to 02.05.18 KPI Report 10.10.17 	The Control Room Operator is responsible for monitoring the plume from Point 4 (the Flare). During each shift the Operator reports whether the plume was visible or not on the hard copy Flare Log. The Flare Logs reviewed indicated the typical response documented was that there was 'no visible plume'. The duration of the plume was not noted on the Flare Log or within the KPI report and was not actively tracked by Cleanaway. This condition has been assessed as compliant based on the Flare Log reporting predominately 'no visible plume' however it is recommended that the duration of the plume is tracked by the Site.	Compliant	2018 IEA OFI 20 Include a requirement / KPI for tracking the period that emissions are visible from the flare to enable tracking of compliance with the requirement that there must be no visible emission from the flare exceeding 5 minutes in any 2 hour period.
5 MONITORING AND RECORDING CONDITIONS					
M1 Monitoring Records					
M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.		The following monitoring is required to be undertaken by the EPL: <ul style="list-style-type: none"> Groundwater monitoring Air quality monitoring Weather monitoring Assessment of compliance with monitoring requirements is provided in M1.2 and M1.3.	Noted	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them.	<ul style="list-style-type: none"> Annual Groundwater Monitoring Event April 2016 report, Cleanaway, dated 19.04.16 Biannual Groundwater Monitoring Event Summary Report April 2015, Transpacific, dated 30.04.15 Source Emissions Monitoring report, AMG, dated 26.02.18 Source Emissions Monitoring report, AMG, dated 30.01.17 Source Emissions Monitoring report, AMG, dated 21.01.15 	<p>Monitoring data and results were sighted and available for the audit period, which is more than four years in this instance. It is considered that the monitoring records are generally maintained in compliance with the requirements of this condition and may be made available upon request of an authorised officer.</p> <p>Records are maintained on the internal Cleanaway network drive in electronic format.</p>	Compliant	
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	<ul style="list-style-type: none"> 11170 – Groundwater SDS all samples.xlsx 10462 – Groundwater SDS all samples.xlsx Annual Groundwater Monitoring Event April 2016 report, Cleanaway, dated 19.04.16 Biannual Groundwater Monitoring Event Summary Report April 2015, Transpacific, dated 30.04.15 Source Emissions Monitoring report, AMG, dated 26.02.18 11170 results summary - R_0 10642 -Results summary R_0.xlsx 	<p><u>Groundwater monitoring</u> The auditors reviewed the Groundwater Field Parameters field sheet used when sampling in 2015 and 2016. The field sheet included the date, the sample point and the initials of the person who took the sample. The field sheet did not record the time the sample was collected. The Auditors were also provided the groundwater sample data sheets (excel) for the 2016 and 2017 groundwater sampling. These data sheets included the date, sample time, sample location/point and name of person who collected the sample as required by this condition. Records of the information required under this condition should continue to be recorded as per the 2016 and 2017 groundwater sample data sheets.</p> <p><u>Air quality monitoring</u> The auditors reviewed the Source Emission Monitoring Report 2017 which detailed the date on which samples were taken, the run start and run stop times and the sample location. The name of the person who collected the sample was not included and on this basis, this condition has been assessed as non-compliant.</p>	Non-compliant	<p>2018 IEA REC 14</p> <p>Update Air Emissions Monitoring spreadsheet to include the name of the person who collected the samples.</p>
M2 Requirement to Monitor Concentration of Pollutants Discharged					
M2.1	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:		Noted	Noted	

AUDIT CHECKLIST

Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																																																																																																																																								
M2.2	<div>Air Monitoring Requirements 2,3</div> <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Dry gas density</td><td>kilograms per cubic metre</td><td>Yearly</td><td>TM-23</td></tr><tr><td>Moisture</td><td>percent</td><td>Yearly</td><td>TM-22</td></tr><tr><td>Molecular weight of stack gases</td><td>grams per gram mole</td><td>Yearly</td><td>TM-23</td></tr><tr><td>Nitrogen Oxides</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-11</td></tr><tr><td>Oxygen (O2)</td><td>percent</td><td>Yearly</td><td>TM-25</td></tr><tr><td>Solid Particles</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-15</td></tr><tr><td>Temperature</td><td>degrees Celsius</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Velocity</td><td>metres per second</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-34</td></tr><tr><td>Volumetric flowrate</td><td>normalised cubic metres per second</td><td>Yearly</td><td>TM-2</td></tr></tbody></table> <div>5</div> <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Moisture</td><td>percent</td><td>Yearly</td><td>TM-22</td></tr><tr><td>Odour</td><td>odour units</td><td>Yearly</td><td>OM-7</td></tr><tr><td>Polycyclic aromatic hydrocarbons</td><td>milligrams per cubic metre</td><td>Yearly</td><td>OM-6</td></tr><tr><td>Temperature</td><td>degrees Celsius</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-34</td></tr><tr><td>Volumetric flowrate</td><td>normalised cubic metres per second</td><td>Yearly</td><td>TM-2</td></tr></tbody></table> <div>19</div> <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Dry gas density</td><td>kilograms per cubic metre</td><td>Yearly</td><td>TM-23</td></tr><tr><td>Formaldehyde</td><td>milligrams per cubic metre</td><td>Yearly</td><td>Special Method 1</td></tr><tr><td>Hydrogen Sulfide</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-5</td></tr><tr><td>Moisture</td><td>percent</td><td>Yearly</td><td>TM-22</td></tr><tr><td>Molecular weight of stack gases</td><td>grams per gram mole</td><td>Yearly</td><td>TM-23</td></tr><tr><td>Nitrogen Oxides</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-11</td></tr><tr><td>Odour</td><td>odour units</td><td>Yearly</td><td>OM-7</td></tr><tr><td>Oxygen (O2)</td><td>percent</td><td>Yearly</td><td>TM-25</td></tr><tr><td>Solid Particles</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-15</td></tr><tr><td>Sulfuric acid mist and sulfur trioxide (as SO3)</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-3</td></tr><tr><td>Sulphur dioxide</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-4</td></tr><tr><td>Temperature</td><td>degrees Celsius</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Velocity</td><td>metres per second</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-34</td></tr><tr><td>Volumetric flowrate</td><td>normalised cubic metres per second</td><td>Yearly</td><td>TM-2</td></tr></tbody></table>	Pollutant	Units of measure	Frequency	Sampling Method	Dry gas density	kilograms per cubic metre	Yearly	TM-23	Moisture	percent	Yearly	TM-22	Molecular weight of stack gases	grams per gram mole	Yearly	TM-23	Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11	Oxygen (O2)	percent	Yearly	TM-25	Solid Particles	milligrams per cubic metre	Yearly	TM-15	Temperature	degrees Celsius	Yearly	TM-2	Velocity	metres per second	Yearly	TM-2	Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34	Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2	Pollutant	Units of measure	Frequency	Sampling Method	Moisture	percent	Yearly	TM-22	Odour	odour units	Yearly	OM-7	Polycyclic aromatic hydrocarbons	milligrams per cubic metre	Yearly	OM-6	Temperature	degrees Celsius	Yearly	TM-2	Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34	Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2	Pollutant	Units of measure	Frequency	Sampling Method	Dry gas density	kilograms per cubic metre	Yearly	TM-23	Formaldehyde	milligrams per cubic metre	Yearly	Special Method 1	Hydrogen Sulfide	milligrams per cubic metre	Yearly	TM-5	Moisture	percent	Yearly	TM-22	Molecular weight of stack gases	grams per gram mole	Yearly	TM-23	Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11	Odour	odour units	Yearly	OM-7	Oxygen (O2)	percent	Yearly	TM-25	Solid Particles	milligrams per cubic metre	Yearly	TM-15	Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly	TM-3	Sulphur dioxide	milligrams per cubic metre	Yearly	TM-4	Temperature	degrees Celsius	Yearly	TM-2	Velocity	metres per second	Yearly	TM-2	Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34	Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2	<ul style="list-style-type: none">Annual Returns for the reporting periodSource Emissions Monitoring report, AMG, dated 26.02.18Source Emissions Monitoring report, AMG, dated 30.01.17Source Emissions Monitoring report, AMG, dated 21.01.15	<p>As discussed in EPL Condition L3.2, a review of the EPL Annual Returns identified that the Site has had a number of exceedances of EPL Conditions including a non-compliance with EPL Condition M2.1 (now M2.2). The non-compliance was due to sampling of the following monitoring points not being undertaken in July 2008, DP1, DP2, DP3, DP5, DP18, DP19, DP20, as sampling was required quarterly at that time.</p> <p>The auditors reviewed the annual source emissions monitoring reports prepared by Assured Monitoring Group (AMG) for 2015, 2016, 2017 and noted the following (the annual monitoring for 2018 had not been undertaken at the time of the audit).</p> <ul style="list-style-type: none">2017 Annual Monitoring was conducted from the 27.11.17 to 30.11.17. AMG stated that the testing was conducted in accordance with NSW standard included in this condition and the test methods directly relate to the 'Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales' (DECC, 2007).2016 Annual Monitoring was conducted from the 5.12.16 to 9.12.16. AMG stated that the testing was conducted in accordance with NSW standard included in this condition and the test methods directly relate to the 'Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales' (DECC, 2007).In 2015 the Site was required under the EPL to conduct quarterly sampling of air concentration limits. Cleanaway provided the auditors a copy of each quarterly report for 2015. For the purpose of this audit only the annual report for 2015 was reviewed (not the quarterly reports) as this reflects the current EPL condition. 2015 Annual Monitoring was conducted from the 3.11.15 to 6.11.15. AMG stated that the testing was conducted in accordance with NSW standard included in this condition and the test methods directly relate to the 'Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales' (DECC, 2007). <p>This condition has been assessed as non-compliant due to the non-compliance with sampling frequency in 2009. It is noted that the Site has complied with the monitoring requirements since that time and therefore no recommendations are made.</p>	Non-compliant	Nil
Pollutant	Units of measure	Frequency	Sampling Method																																																																																																																																										
Dry gas density	kilograms per cubic metre	Yearly	TM-23																																																																																																																																										
Moisture	percent	Yearly	TM-22																																																																																																																																										
Molecular weight of stack gases	grams per gram mole	Yearly	TM-23																																																																																																																																										
Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11																																																																																																																																										
Oxygen (O2)	percent	Yearly	TM-25																																																																																																																																										
Solid Particles	milligrams per cubic metre	Yearly	TM-15																																																																																																																																										
Temperature	degrees Celsius	Yearly	TM-2																																																																																																																																										
Velocity	metres per second	Yearly	TM-2																																																																																																																																										
Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34																																																																																																																																										
Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2																																																																																																																																										
Pollutant	Units of measure	Frequency	Sampling Method																																																																																																																																										
Moisture	percent	Yearly	TM-22																																																																																																																																										
Odour	odour units	Yearly	OM-7																																																																																																																																										
Polycyclic aromatic hydrocarbons	milligrams per cubic metre	Yearly	OM-6																																																																																																																																										
Temperature	degrees Celsius	Yearly	TM-2																																																																																																																																										
Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34																																																																																																																																										
Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2																																																																																																																																										
Pollutant	Units of measure	Frequency	Sampling Method																																																																																																																																										
Dry gas density	kilograms per cubic metre	Yearly	TM-23																																																																																																																																										
Formaldehyde	milligrams per cubic metre	Yearly	Special Method 1																																																																																																																																										
Hydrogen Sulfide	milligrams per cubic metre	Yearly	TM-5																																																																																																																																										
Moisture	percent	Yearly	TM-22																																																																																																																																										
Molecular weight of stack gases	grams per gram mole	Yearly	TM-23																																																																																																																																										
Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11																																																																																																																																										
Odour	odour units	Yearly	OM-7																																																																																																																																										
Oxygen (O2)	percent	Yearly	TM-25																																																																																																																																										
Solid Particles	milligrams per cubic metre	Yearly	TM-15																																																																																																																																										
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Yearly	TM-3																																																																																																																																										
Sulphur dioxide	milligrams per cubic metre	Yearly	TM-4																																																																																																																																										
Temperature	degrees Celsius	Yearly	TM-2																																																																																																																																										
Velocity	metres per second	Yearly	TM-2																																																																																																																																										
Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34																																																																																																																																										
Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2																																																																																																																																										

AUDIT CHECKLIST

Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																																																				
	<div>20</div> <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Dry gas density</td><td>kilograms per cubic metre</td><td>Yearly</td><td>TM-23</td></tr><tr><td>Hydrogen Sulfide</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-5</td></tr><tr><td>Moisture</td><td>percent</td><td>Yearly</td><td>TM-22</td></tr><tr><td>Molecular weight of stack gases</td><td>grams per gram mole</td><td>Yearly</td><td>TM-23</td></tr><tr><td>Nitrogen Oxides</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-11</td></tr><tr><td>Odour</td><td>odour units</td><td>Yearly</td><td>OM-7</td></tr><tr><td>Oxygen (O2)</td><td>percent</td><td>Yearly</td><td>TM-25</td></tr><tr><td>Solid Particles</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-15</td></tr><tr><td>Temperature</td><td>degrees Celsius</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Velocity</td><td>metres per second</td><td>Yearly</td><td>TM-2</td></tr><tr><td>Volatile organic compounds</td><td>milligrams per cubic metre</td><td>Yearly</td><td>TM-34</td></tr><tr><td>Volumetric flowrate</td><td>normalised cubic metres per second</td><td>Yearly</td><td>TM-2</td></tr></tbody></table>	Pollutant	Units of measure	Frequency	Sampling Method	Dry gas density	kilograms per cubic metre	Yearly	TM-23	Hydrogen Sulfide	milligrams per cubic metre	Yearly	TM-5	Moisture	percent	Yearly	TM-22	Molecular weight of stack gases	grams per gram mole	Yearly	TM-23	Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11	Odour	odour units	Yearly	OM-7	Oxygen (O2)	percent	Yearly	TM-25	Solid Particles	milligrams per cubic metre	Yearly	TM-15	Temperature	degrees Celsius	Yearly	TM-2	Velocity	metres per second	Yearly	TM-2	Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34	Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2				
Pollutant	Units of measure	Frequency	Sampling Method																																																						
Dry gas density	kilograms per cubic metre	Yearly	TM-23																																																						
Hydrogen Sulfide	milligrams per cubic metre	Yearly	TM-5																																																						
Moisture	percent	Yearly	TM-22																																																						
Molecular weight of stack gases	grams per gram mole	Yearly	TM-23																																																						
Nitrogen Oxides	milligrams per cubic metre	Yearly	TM-11																																																						
Odour	odour units	Yearly	OM-7																																																						
Oxygen (O2)	percent	Yearly	TM-25																																																						
Solid Particles	milligrams per cubic metre	Yearly	TM-15																																																						
Temperature	degrees Celsius	Yearly	TM-2																																																						
Velocity	metres per second	Yearly	TM-2																																																						
Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34																																																						
Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2																																																						
M2.3	<div>Water and/or Land Monitoring Requirements</div> <div>POINT 6,10,22,23</div> <table><thead><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr></thead><tbody><tr><td>Tetrachloroethene (tetrachloroethylene)</td><td>micrograms per litre</td><td>Yearly</td><td>Representative sample</td></tr><tr><td>TPH C10-C36 Fraction</td><td>micrograms per litre</td><td>Yearly</td><td>Representative sample</td></tr><tr><td>TPH C6-C9 Fraction</td><td>micrograms per litre</td><td>Yearly</td><td>Representative sample</td></tr></tbody></table>	Pollutant	Units of measure	Frequency	Sampling Method	Tetrachloroethene (tetrachloroethylene)	micrograms per litre	Yearly	Representative sample	TPH C10-C36 Fraction	micrograms per litre	Yearly	Representative sample	TPH C6-C9 Fraction	micrograms per litre	Yearly	Representative sample	<ul style="list-style-type: none">2008 - Quarterly Groundwater Monitoring Event Summary Report May 2008, dated 28.05.082009 - Quarterly Groundwater Monitoring Event Summary Report January 2009, dated 11.03.092010 - Biannual Groundwater Monitoring Event Summary Report April 2010, dated 14.05.102011 - Biannual Groundwater Monitoring Event Summary Report April 2011, dated 2.05.112012 - Biannual Groundwater Monitoring Event Summary Report April 2012, dated 12.06.122013 - Biannual Groundwater Monitoring Event Summary Report April 2013, dated 4.06.132014 - Biannual Groundwater	<p>As discussed in EPL Condition P1.3, the EPL was varied on 16.06.17 to remove three groundwater monitoring points (EPL Point 7 (MW18) , EPL Point 8 (MW17), and EPL Point 9 (MW20)) from the licence and replace them with two alternative groundwater monitoring points (EPL Point 22 (MW15) and EPL Point 23 (MW19). As such annual monitoring data for Point 22 and 23 was only available for review in the 2017 annual monitoring report.</p> <p>A number of groundwater monitoring reports were sighted by the auditors identifying that annual groundwater monitoring for Point 10 was undertaken for tetrachloroethylene, TPH C10-C36 and TPH C6-C9 during the audit period at least annually. Point 6 was monitored annually for the required analytes except in 2017. The annual groundwater monitoring report identified that the well was dry, therefore unable to be sampled.</p> <p>The 2017 annual groundwater monitoring report identified that monitoring at Points 22 and 23 was undertaken for tetrachloroethylene, TPH C10-C36 and TPH C6-C9.</p>	Compliant																																					
Pollutant	Units of measure	Frequency	Sampling Method																																																						
Tetrachloroethene (tetrachloroethylene)	micrograms per litre	Yearly	Representative sample																																																						
TPH C10-C36 Fraction	micrograms per litre	Yearly	Representative sample																																																						
TPH C6-C9 Fraction	micrograms per litre	Yearly	Representative sample																																																						

AUDIT CHECKLIST

Reference	Condition	Evidence	Comments	Audit Finding	Recommendation																																																																																																
		<div>Monitoring Event Summary Report April 2014, dated 30.05.14</div> <ul style="list-style-type: none">2015 – Biannual Groundwater Monitoring Event Summary Report April 2015, dated 30.04.152016 – Annual groundwater monitoring event report April 2016, dated 19.04.162017 – Annual Groundwater Report, RCA Australia, dated 22.12.1711170 – Groundwater SDS all samples.xlsx																																																																																																			
M2.4	<div>For each monitoring/discharge point specified below (by a point number), the licensee must adjust the monitoring results for the pollutants listed in Column 2 to the units of measure and reference conditions specified opposite in the other columns.</div> <table><tr><th>Point Number</th><th>Pollutant/Parameter</th><th>Units of Measure</th><th>Reference Conditions</th></tr><tr><td>POINT 5</td><td>Volatile organic compounds (VOC)¹</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Hydrogen sulfide</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Polycyclic aromatic hydrocarbons</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Nitrogen dioxide (NO2) or nitric oxide (NO) or both</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Solid particles</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Formaldehyde</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Sulfuric acid mist and sulfur trioxide (as SO3)</td><td>mg/m3</td><td>Dry, 273 K 101.3 kPa</td></tr><tr><td>POINT 5</td><td>Sulfur dioxide</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa</td></tr><tr><td>POINTS 2, 3, 19</td><td>Volatile organic compounds (VOC)¹</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINTS 2, 3, 19</td><td>Hydrogen sulfide</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINTS 2, 3, 19</td><td>Nitrogen dioxide (NO2) or nitric oxide (NO) or both</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINTS 2, 3, 19</td><td>Solid particles</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINTS 2, 3, 19</td><td>Formaldehyde</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINTS 2, 3, 19</td><td>Sulfuric acid mist and sulfur trioxide (as SO3)</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINTS 2, 3, 19</td><td>Sulfur dioxide</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 8% O2</td></tr><tr><td>POINT 20</td><td>Volatile organic compounds (VOC)¹</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Hydrogen sulfide</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Polycyclic aromatic hydrocarbons</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Nitrogen dioxide (NO2) or nitric oxide (NO) or both</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Solid particles</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Formaldehyde</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Sulfuric acid mist and sulfur trioxide (as SO3)</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr><tr><td>POINT 20</td><td>Sulfur dioxide</td><td>mg/m3</td><td>Dry, 273 K, 101.3 kPa, 4% O2</td></tr></table> <div>Note: 1 – VOC as n-propane equivalent</div>	Point Number	Pollutant/Parameter	Units of Measure	Reference Conditions	POINT 5	Volatile organic compounds (VOC) ¹	mg/m3	Dry, 273 K, 101.3 kPa	POINT 5	Hydrogen sulfide	mg/m3	Dry, 273 K, 101.3 kPa	POINT 5	Polycyclic aromatic hydrocarbons	mg/m3	Dry, 273 K, 101.3 kPa	POINT 5	Nitrogen dioxide (NO2) or nitric oxide (NO) or both	mg/m3	Dry, 273 K, 101.3 kPa	POINT 5	Solid particles	mg/m3	Dry, 273 K, 101.3 kPa	POINT 5	Formaldehyde	mg/m3	Dry, 273 K, 101.3 kPa	POINT 5	Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Dry, 273 K 101.3 kPa	POINT 5	Sulfur dioxide	mg/m3	Dry, 273 K, 101.3 kPa	POINTS 2, 3, 19	Volatile organic compounds (VOC) ¹	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINTS 2, 3, 19	Hydrogen sulfide	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINTS 2, 3, 19	Nitrogen dioxide (NO2) or nitric oxide (NO) or both	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINTS 2, 3, 19	Solid particles	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINTS 2, 3, 19	Formaldehyde	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINTS 2, 3, 19	Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINTS 2, 3, 19	Sulfur dioxide	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2	POINT 20	Volatile organic compounds (VOC) ¹	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Hydrogen sulfide	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Polycyclic aromatic hydrocarbons	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Nitrogen dioxide (NO2) or nitric oxide (NO) or both	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Solid particles	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Formaldehyde	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	POINT 20	Sulfur dioxide	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2	<ul style="list-style-type: none">Source Emissions Monitoring report, AMG, dated 26.02.18Source Emissions Monitoring report, AMG, dated 30.01.17Source Emissions Monitoring report, AMG, dated 21.01.15	A review of the Source Emissions Monitoring reports indicated that stack testing was being corrected to ‘normal conditions’ (dry, 273K and 101.325kPa) as required.	Compliant	
Point Number	Pollutant/Parameter	Units of Measure	Reference Conditions																																																																																																		
POINT 5	Volatile organic compounds (VOC) ¹	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINT 5	Hydrogen sulfide	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINT 5	Polycyclic aromatic hydrocarbons	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINT 5	Nitrogen dioxide (NO2) or nitric oxide (NO) or both	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINT 5	Solid particles	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINT 5	Formaldehyde	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINT 5	Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Dry, 273 K 101.3 kPa																																																																																																		
POINT 5	Sulfur dioxide	mg/m3	Dry, 273 K, 101.3 kPa																																																																																																		
POINTS 2, 3, 19	Volatile organic compounds (VOC) ¹	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINTS 2, 3, 19	Hydrogen sulfide	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINTS 2, 3, 19	Nitrogen dioxide (NO2) or nitric oxide (NO) or both	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINTS 2, 3, 19	Solid particles	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINTS 2, 3, 19	Formaldehyde	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINTS 2, 3, 19	Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINTS 2, 3, 19	Sulfur dioxide	mg/m3	Dry, 273 K, 101.3 kPa, 8% O2																																																																																																		
POINT 20	Volatile organic compounds (VOC) ¹	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Hydrogen sulfide	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Polycyclic aromatic hydrocarbons	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Nitrogen dioxide (NO2) or nitric oxide (NO) or both	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Solid particles	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Formaldehyde	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Sulfuric acid mist and sulfur trioxide (as SO3)	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
POINT 20	Sulfur dioxide	mg/m3	Dry, 273 K, 101.3 kPa, 4% O2																																																																																																		
M2.5	Special Method 1 – means the method described in US-EPA 323		Noted	Noted																																																																																																	

AUDIT CHECKLIST																				
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation															
M3 Testing Methods – Concentration Limits																				
M3.1	Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place. Note: The <i>Protection of the Environment Operations (Clean Air) Regulation 2002</i> requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".		As discussed in EPL Condition M2.2, air monitoring has been undertaken in accordance with the ‘ <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> ’ (DECC, 2007).	Compliant																
M3.2	Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.		Monitoring of pollutants discharged to waters is not undertaken as it is not specified by this EPL. The site does not have any licensed discharge points for discharges to water.	Noted																
M4 Testing Methods – Load Limits																				
Note	Note: Division 3 of the <i>Protection of the Environment Operations (General) Regulation 2009</i> requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.		Noted	Noted																
M5 Weather Monitoring																				
M5.1	For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period, and sample at the frequency specified in the other columns. POINT 21 <table><tr><th>Parameter</th><th>Units of Measure</th><th>Frequency</th><th>Averaging Period</th><th>Sampling Method</th></tr><tr><td>Wind direction</td><td>Degrees</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr><tr><td>Wind speed</td><td>m/s</td><td>Continuous</td><td>15 minute</td><td>AM-2 & AM-4</td></tr></table>	Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method	Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4	Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4	<ul style="list-style-type: none">Visual inspectionWeather Station Field Calibration Report – Cleanaway Rutherford WM Nov 2017.pdfTPI letter dated 4.07.14TPI letter dated 22.10.140026 – WS-SOP Weather Station Downloads Rev 3 (12.06.17)Monthly weather data (csv files) for 2018, 2017 and 2016	The Site has a weather station on site. The weather station operates continuously and is monitored by the Control Room. The site also has a wind sock located on the top flash point correction column. The Site provided weather calibration data for air temperature dated 22.06.17. The auditors sighted the planned maintenance excel workbook and noted that the weather station was scheduled for annual calibration. A Field Calibration Report by Envirodata was sighted dated 30.11.17. Based on a review of available documents the weather station was reported to the EPA as not operational during the following dates: <ul style="list-style-type: none">25.06.14 to 3.07.14 – letter notifying the EPA of repair sighted by the auditors dated 4.07.14Unknown period in October 2014 - letter notifying the EPA of repair sighted by the auditors dated 22.10.14 The above outages were notified to the EPA however were not reported in the Annual Return as non-compliances with the requirement for continuous monitoring. Raw monitoring data was provided by the Site for the auditors to review for the last three years. The weather data provided included 15 min incremental wind weed (km/h) and wind direction (degrees). The data provided included a number of gaps. It was explained that this is due to the process of downloading the data (not the operation of the weather station itself). The data downloaded was dependent on which operator downloaded the data. Cleanaway proposed to consolidate all databases and create one in a central location accessible to all employees for future data gathering. This is supported by the auditors .	Non-compliant	2018 IEA OFI 21 Consolidate weather station databases to facilitate future data gathering. 2018 IEA OFI 22 Ensure future outages that result in disruptions to the weather station are reported as a non-compliance in the Annual Return with the requirement for continuous monitoring.
Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method																
Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4																
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4																
M6 Recording of Pollution Complaints																				
M6.1	The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	<ul style="list-style-type: none">Cleanaway Complaints Register (excel)	Refer to CoA 6.3.	Compliant																

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
M6.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	<ul style="list-style-type: none">EPA Complaints Register (excel)	Refer to CoA 6.3.	Compliant	
M6.3	The record of a complaint must be kept for at least 4 years after the complaint was made.		Complaints were available for review from the commencement of operations (greater than four years).	Compliant	
M6.4	The record must be produced to any authorised officer of the EPA who asks to see them.		No complaints have been received directly by Cleanaway since 2007. All Complaints / enquiries received during the audit period were via the EPA for the Rutherford Industrial Estate. The EPA has not requested to see complaint records.	Not triggered	
M7 Telephone Complaints Line					
M7.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.		Refer to CoA 6.2.	Non-compliant	Refer to CoA 6.2
M7.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.		Refer to CoA 6.2	Non-compliant	Refer to CoA 6.2
M7.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.		Closed out in previous audit.	Closed out	
M8 Other Monitoring and Recording Conditions					
M8.1	Detailed records of each use of the flare must be kept on site and made available to the EPA on request. Each record must include the flare start and stop time and the reason for its use.	<ul style="list-style-type: none">Flare Logs 06.01.18 to 26.10.18Flare Logs 3.12.13 to 09.12.14Plant KPI Report 10.10.17	The Flare Log was sighted by the auditors during the Site inspection. The Flare Log includes the following information: the date, time start flaring, time finish flaring, duration of flaring, stack appearance (“visible plume” or “no plume”), and reason for flaring. The Flare Log is maintained as a hard copy in folders at the Control Room. These were sighted during the site visit. The Operators also enter details of the period of flaring and reason for its use in the Plant KPI report. Recording of this parameter within the Plant KPI Report commenced in October 2017. The Site reported that the EPA did not request to see records of the Flare Log during the Audit period.	Compliant	
M8.2	Detailed records of all process upsets and process start-ups and shutdowns must be kept. Each record must include the process start and stop time and the reason for each process upset.	<ul style="list-style-type: none">Flare Logs 06.01.18 to 26.10.18Plant KPI Report 10.10.17	Details of process upsets, start-ups and shutdowns are recorded by the Operators in the Daily Shift Report which is included in the Plant KPI Report. The Plant KPI Report includes fields for the period of time flaring for startup/shutdown and period of time flaring for process upsets. The Shift Report within the KPI Report includes the Operator’s report of how the plant was operating including any issues / reasons for process upsets.	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
6 REPORTING CONDITIONS					
R1 Annual Return Documents					
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> 1. a Statement of Compliance; and 2. a Monitoring and Complaints Summary. 3. a statement of Compliance – Licence Conditions, 4. a Statement of Compliance - Load based Fee, 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan, 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and 7. a Statement of Compliance - Environmental Management Systems and Practices. <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	<ul style="list-style-type: none"> • 2009 Annual Return 12555.pdf • 2010 Annual Return signed.pdf • 2011_ AR 12555.pdf • TPR Annual Return signed 11-12.pdf • 12555 TPR 2013.pdf • Final Annual Return 2014.pdf • Final Annual Return 2015.pdf • Cleanaway Refiners 12555 Annual Return 2016 docx.pdf • EPL 12555_RutherfordRefinery_AR_2017.pdf 	<p>The Annual Returns submitted by the Site were on the approved forms provided by the EPA and included the required statements.</p> <p>Regarding the requirement to publish pollution monitoring data, the following is noted:</p> <ul style="list-style-type: none"> • Cleanaway Rutherford is required to undertake monitoring for air pollutants and groundwater pollutants on an annual basis. • As a result, Cleanaway includes the AEMR (required to be prepared by the CoA) to also fulfil its requirement for publishing monitoring data. • The requirements for publishing monitoring data, outlined in section 66(6) of the POEO Act, require that monitoring data is made available in a prominent position on the website within 14 days of obtaining the data. • The pollution monitoring data is provided on the Cleanaway website for all of Cleanaway's facilities. It is not very easy to navigate directly to the facility of interest to find the published data. 	Compliant	<p>2018 IEA OFI 23</p> <p>Review the requirements for publishing pollution monitoring data and whether the AEMR fulfils these requirements. In particular review the timing for publishing the data and where it is located on the website.</p>
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below.	<ul style="list-style-type: none"> • 2009 Annual Return 12555.pdf • 2010 Annual Return signed.pdf • Bridging Annual Return Nov 2010 signed.pdf • 2011_ AR 12555.pdf • TPR Annual Return signed 11-12.pdf • 12555 TPR 2013.pdf • Final Annual Return 2014.pdf • Final Annual Return 2015.pdf • Cleanaway Refiners 12555 Annual Return 2016 docx.pdf • EPL 12555_RutherfordRefinery_AR_2017.pdf 	<p>Annual Return documents have been prepared and submitted by the Site as required by this Condition R1.2. The Auditors reviewed signed Annual Returns for the following periods:</p> <ul style="list-style-type: none"> • 22.05.08 – 21.05.09 • 22.05.09 – 21.05.10 • 22.05.10 – 28.09.10 • 29.09.10 – 28.09.11 • 29.09.11 – 28.09.12 • 29.09.12 – 28.09.13 • 29.09.13 – 28.09.14 • 29.09.14 – 28.09.15 • 29.09.15 – 28.09.16 • 29.09.16 – 28.09.17 	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
R1.3	Where this licence is transferred from the licensee to a new licensee: a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.	-	Not triggered	Not triggered	
R1.4	Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on: a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.		Not triggered	Not triggered	
R1.5	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	<ul style="list-style-type: none"> • POEO Public Register, EPA • Revised 09-10 AR cover letter - Dec 2011.pdf • Response to Show Cause letter dated 2 Dec 2009.pdf 	<p>The auditors reviewed the EPA EPL register online and identified that the following Annual Returns were submitted later than 60 days after the end of the reporting period:</p> <ul style="list-style-type: none"> • 22.05.09 – 21.05.10 – Submitted on 23.07.10 • 22.05.10 – 28.09.10 – Submitted on 29.11.10 • 29.09.10 – 28.09.11 – Submitted on 02.12.11 • 29.09.14 – 28.09.15 – Submitted on 01.12.15 <p>In addition the following is noted:</p> <ul style="list-style-type: none"> • the Annual Return for licence period 22.05.08 to 21.05.09 was first submitted on 20.07.09 (within the 60 days). The Annual Return was then re-submitted on 30.10.09. • the Annual Return for reporting period 22.05.09 – 21.05.10 was re-submitted in a letter dated 22.12.11, following instruction from OEH, letter dated 16.12.11 (not sighted by the auditors). The Annual Return was resubmitted due to an error in reporting of the annual load limit for Hydrogen sulphide (L2.2). <p>On the basis that the Annual Returns have not always been submitted by the required date, this Condition has been assessed as non-compliant. It is noted that Cleanaway has complied with this Condition since 2016.</p>	Non-compliant	2018 IEA REC 15 Ensure all future Annual Returns are submitted to the EPA within 60 days of the end of the reporting period (by the 27 November each year).
R1.6	Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify: a) the assessable pollutants for which the actual load could not be calculated; and b) the relevant circumstances that were beyond the control of the licensee.		Refer to Condition R1.5 for discussion of submission of Annual Returns following the due date.	Noted	
R1.7	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	<ul style="list-style-type: none"> • Final Annual Return 2014.pdf • Final Annual Return 2015.pdf • Cleanaway Refiners 12555 Annual Return 2016 docx.pdf • EPL 12555_RutherfordRefinery_AR_2017.pdf 	The Site provided the auditors with a copy of each of the Annual Returns for the audit period (10 years), therefore this condition is considered compliant.	Compliant	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
R1.8	Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	<ul style="list-style-type: none"> 2009 Annual Return 12555.pdf 2010 Annual Return signed.pdf 2011_ AR 12555.pdf TPR Annual Return signed 11-12.pdf 12555 TPR 2013.pdf Final Annual Return 2014.pdf Final Annual Return 2015.pdf Cleanaway Refiners 12555 Annual Return 2016 docx.pdf EPL 12555_RutherfordRefinery_AR_2017.pdf 	The Annual Returns as listed in Condition R1.2 have been completed and signed (dated) by the Director and Company Secretary.	Compliant	
R1.9	The results of air quality monitoring undertaken in accordance with the conditions of this licence must be provided to the EPA on a quarterly basis with the first air quality monitoring report due no later than 6 months from the date of issue of this licence.	N/A	A licence variation was approved on 16.06.16 to reduce the frequency of monitoring of air to annual; therefore this condition is no longer applicable to the Site.	Not Triggered	2018 IEA OFI 24 Submit a variation to the EPL to remove this condition.
R1.10	The licensee must submit the following information with the Annual Return: a) A comparison of data obtained from emissions monitoring to the emission limits in this licence and other relevant air quality criteria; b) Recommendations for the continuation or discontinuation of monitoring for pollutants which have not been detected or detected consistently at levels significantly below the licence and/or regulatory limits.	<ul style="list-style-type: none"> 2009 Annual Return 12555.pdf 2010 Annual Return signed.pdf 2011_ AR 12555.pdf 12555 TPR 2013.pdf Final Annual Return 2014.pdf Final Annual Return 2015.pdf Cleanaway Refiners 12555 Annual Return 2016 docx.pdf EPL 12555_RutherfordRefinery_AR_2017.pdf 	<p>The Annual Returns were reviewed for each period against this condition. The following was identified:</p> <ul style="list-style-type: none"> 22.05.08 – 21.05.09 – a licence condition report R1.9.2 (now R1.10) was attached the EPL. 22.05.09 – 21.05.10 - a licence condition report was not attached to this Annual Return. 22.05.10 – 28.09.10 - a licence condition report was not attached to this Annual Return. 29.09.10 – 28.09.11 - a licence condition report was not attached to this Annual Return. 29.09.11 – 28.09.12 – a licence condition report was not attached to this Annual Return. 29.09.12 – 28.09.13 - a licence condition report was not attached to this Annual Return. 29.09.13 – 28.09.14 - a licence condition report was not attached to this Annual Return. 29.09.14 – 28.09.15 - a licence condition report was not attached to this Annual Return. 29.09.15 – 28.09.16 - a licence condition report was not attached to this Annual Return. 29.09.16 – 28.09.17 - a licence condition report was not attached to this Annual Return. <p>This condition has been assessed as non-compliant as the information required under this condition has not been submitted with the Annual Return since the 2008-2009 reporting period.</p>	Non-compliant	2018 IEA REC 16 Ensure the information required under EPL Condition R1.10 is submitted with the Annual Return each year.
Note	<p>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</p> <p>Note: An application to transfer a licence must be made in the approved form for this purpose.</p>		Noted	Noted	

AUDIT CHECKLIST					
Reference	Condition	Evidence	Comments	Audit Finding	Recommendation
R2 Notification of Environmental Harm					
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.		The Site reported that no incidents of environmental harm have occurred within the auditing period.	Not triggered	
R2.2	<p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.</p> <p>Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</p>		The Site reported that no incidents of environmental harm have occurred within the auditing period.	Not triggered	
R3 Written Report					
R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <p>a) where this licence applies to premises, an event has occurred at the premises; or</p> <p>b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.</p>	<ul style="list-style-type: none"> EPA Notice number 1100030, dated 29.04.09 	<p>The Site reported that the following written reports were requested by the EPA during the audit period:</p> <ul style="list-style-type: none"> 29.04.09 – the EPA provided a Notice to Provide Information and/or records under Section 191 of the POEO Act (Notice number 1100030) in regards to exceedance of limits under EPL Condition L3.1. The auditors sighted a number of emails dated 12.05.09 to 08.07.09 identifying that the Site provided a response to this Notice and that it had been received by the EPA. 12.07.18 - The EPA requested a report into PFAS contamination. Cleanaway is in the process of commissioning this report. <p>From review of various documents with partial information it is the auditors understanding that the Site received a number of requests for written reports from the EPA over the audit period. However due to the extended time frame over which this audit period covers, not all records of EPA written reports have been able to be reviewed or closed out by the auditors. On the basis that this could not be verified, this condition has been assessed as non-compliant.</p>	Non-compliant	<p>2018 IEA REC 17</p> <p>Improve tracking of requests by regulatory agencies. Consider logging in the 'Vault' system to facilitate investigation and response to requests and track dates of close out.</p>
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.		As above R3.1	As above R3.1	As above R3.1
R3.3	<p>The request may require a report which includes any or all of the following information:</p> <p>a) the cause, time and duration of the event;</p> <p>b) the type, volume and concentration of every pollutant discharged as a result of the event;</p> <p>c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;</p> <p>d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort</p> <p>e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;</p> <p>f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and</p> <p>g) any other relevant matters.</p>		Noted	Noted	
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request		Noted	Noted	
R4 Other Reporting Conditions					
R4.1	Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.		The Site reported that no incidents of environmental harm have occurred since part 5.7 of the Act was implemented.	Not triggered	
7 GENERAL CONDITIONS					
G1 Copy of licence kept at the premise					
G1.1	A copy of this licence must be kept at the premises to which the licence applies.		The Site maintains an electronic copy of the EPL and if requested the Site reported that a copy would be made available to whoever requested it.	Compliant	
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		Not triggered	Not triggered	
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.		The Site maintains an electronic copy of the EPL and if requested the Site reported that a copy would be made available to whoever requested it.	Compliant	

Appendix B

Audit Team DPE
Approval

Contact: Joel Curran
Phone: (02) 4904 2702
Email: joel.curran@planning.nsw.gov.au
compliance@planning.nsw.gov.au
Our ref: MP 05_0037

Cleanaway Refiners Pty Ltd
6 Rayben Street
GLENDENNING NSW 2761

Att: Orhan Cambaz,
Senior Environmental Business Partner

**Cleanaway Refiners Waste Facility MP 05_0037
Independent Environmental Audit Team**

Dear Orhan

Reference is made to an email received by the Department of Planning and Environment (the Department) on 10 July 2018 proposing an audit team from AECOM Pty Ltd to undertake the Independent Environmental Audit (IEA) of the Cleanaway Refiners Waste Facility (the site) in accordance with Schedule 2, Condition 4.4 of Project Approval MP 05_0037, as modified (the approval).

The Department has reviewed the information provided and endorses the proposed audit team with the following personnel:

- Helen Onus – Lead Auditor
- Katherine Dodd – Audit Team
- Kate Michelmores – Audit Team (replacement for Katherine Dodd if required)
- David Rollings – Odour specialist and technical advice
- David Lockley – Hazard Specialist
- Suanna Harvey – Peer Review and Verification

It is noted that the audit team includes that an odour specialist and hazard specialist in accordance with Schedule 2, Condition 4.4 of the approval.

The Department notes that the last Independent Environmental Audit (IEA) undertaken for the project was dated 19 December 2008. In accordance with Schedule 2, Condition 1.3 of the approval, the Department requires Cleanaway to commission and undertake an IEA of the development. Please ensure that the audit scope includes the period from 2008 to the present, where practicable and feasible. Further, please ensure the IEA is undertaken in accordance with the Department's *Independent Audit Guideline* (October 2015), where relevant, which can be found on the Department's website.

The Department expects that within two months of completion of the IEA (the audit inspection date), Cleanaway shall submit a copy of the audit report to compliance@planning.nsw.gov.au and relevant agencies, with a response to any of the recommendations in the audit report.

Should you need to discuss the above, please contact Joel Curran on the details provided above.

Yours sincerely



Leah Cook

Team Leader - Compliance
As nominee of the Secretary

Appendix C

IEA Site Inspection Meeting Records

Appendix D

Hazard Audit

2018 Independent Hazard Audit

Cleanaway Refinery Rutherford



2018 Independent Hazard Audit

Cleanaway Refinery Rutherford

Client: Cleanaway Refiners Pty Ltd

ABN: 78 114 388 742

Prepared by

AECOM Australia Pty Ltd

17 Warabrook Boulevard, Warabrook NSW 2304, PO Box 73, Hunter Region MC NSW 2310, Australia

T +61 2 4911 4900 F +61 2 4911 4999 www.aecom.com

ABN 20 093 846 925

11-Nov-2018

Job No.: 60585436

AECOM in Australia and New Zealand is certified to the latest version of ISO9001, ISO14001, AS/NZS4801 and OHSAS18001.

© AECOM Australia Pty Ltd (AECOM). All rights reserved.

AECOM has prepared this document for the sole use of the Client and for a specific purpose, each as expressly stated in the document. No other party should rely on this document without the prior written consent of AECOM. AECOM undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document. This document has been prepared based on the Client's description of its requirements and AECOM's experience, having regard to assumptions that AECOM can reasonably be expected to make in accordance with sound professional principles. AECOM may also have relied upon information provided by the Client and other third parties to prepare this document, some of which may not have been verified. Subject to the above conditions, this document may be transmitted, reproduced or disseminated only in its entirety.

Quality Information

Document 2018 Independent Hazard Audit

Ref 60585436

Date 11-Nov-2018

Prepared by Peter Stone

Reviewed by David Lockley

Revision History

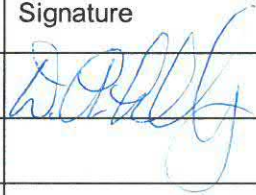
Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
0	11-11-18	Final	David Lockley	

Table of Contents

Abbreviations	i
1.0 Introduction	1
1.1 Background	1
1.2 Audit Scope	1
2.0 Methodology	1
2.1 Personnel	2
3.0 Site Inspection Observations	2
4.0 Hazard Audit Findings	2
5.0 Review of 2008 Hazard Audit Recommendations	2
6.0 Conclusion	3
Appendix A	
Site Inspection Observations	A
Appendix B	
Hazard Audit Findings	B
Appendix C	
Review of 2008 Hazard Audit Recommendations	C

Abbreviations

Abbreviation	Description
BUM	Business Unit Manager
CCP	Critical Control Points
CIPS	Critical Instrumented Protective Systems
CUI	Corrosion Under Insulation
DG	Dangerous Goods
DPE	NSW Department of Planning and Environment
FLSC	Flammable Liquid Storage Cabinet
HP	High Pressure
IEA	Independent Environmental Audit
LOPA	Layers Of Protection Assessment
LP	Low Pressure
MDR	Manufacturer's Data Record
MOC	Management of Change
Mod	Modification
P&ID	Plant and Instrumentation Diagram
SEMP	Site Emergency Plan
SIL	Safety Integrity Level
SIS	Safety Integrity System
SOP	Standard Operating Procedure
SWIFT	Safety What Ifs (modified Hazop style risk assessment)

1.0 Introduction

1.1 Background

AECOM Australia Pty Ltd (AECOM) was engaged by Cleanaway Pty Ltd (Cleanaway) to carry out an Independent Environmental Audit (IEA) of the Cleanaway Refinery located at Rutherford, New South Wales (referred to in this report as Cleanaway Rutherford). Discussions with the Department of Planning and Environment (DPE) indicated that the IEA was to include a hazard audit aligned with the Hazardous Industry Planning Advisory Paper No.5 – Hazard Audit Guidelines (HIPAP 5).

This is the second IEA and hazard audit to be carried out at Rutherford facility under Project Approval 05_0037 (PA 05_0037). The first audit was required to be undertaken within one year of commencement of operations and was completed in September 2008. The recommendations and opportunities for improvement identified in the 2008 hazard audit have been reviewed as part of this audit to capture operational changes to Site.

1.2 Audit Scope

It is understood that Cleanaway had discussions with the DPE to clarify the scope of the hazard audit and that the DPE agreed that the audit be limited to the following, and not encompass a full HIPAP No.5 hazard audit:

- Undertake a gap analysis to identify any new hazards that have been introduced by changes to the plant (if any) since the 2008 Hazard Audit;
- Assess any new hazards identified through the gap analysis;
- Address environmental recommendations made in the 2008 Hazard Audit;
- Address the environmental component of HIPAP 5 (i.e. section 2.3.6 Environmental Protection)

The audit period has been defined as from the date of completion of the first audit, September 2008 to 25 October 2018 (date of the hazard site visit).

The facilities audited included the Oil Recovery Plant at Rutherford specifically the Processing Plant, Truck loading/unloading facilities, workshop and immediately surrounding areas.

2.0 Methodology

The Hazard Audit involved the following activities:

- Initial discussions with Cleanaway management to organise the audit, including the provision of documentation, the site visit and timing.
- Review of the Management of Change (MOC) register provided by Cleanaway to understand the changes that have occurred to the plant / processes on site since the previous 2008 Hazard Audit
- Preliminary risk review of the MOC register to identify the more significant changes that represented a higher risk.
- One day site inspection and interviews with key personnel on the 25 October 2018. Tasks undertaken during the site inspection included:
 - Opening meeting
 - Site inspection
 - Review of relevant documentation provided by Cleanaway
 - Interviews with key personnel including the Site Engineer and Maintenance Supervisor
 - A more detailed review of modification MOC004, MOC008, MOC009, MOC018 & MOC17.05
- Review of additional documentation provided by Cleanaway after the Site inspection
- Review of the recommendations from the previous 2008 Hazard Audit and assessment of implementation / close out of the recommendations.
- Review of the environmental component of HIPAP 5 through a review of the bunding and dangerous goods storage. Other aspects of environmental protection such as waste disposal, air pollution and incident management were reviewed as part of the IEA.

- Submission of a Draft Report to Cleanaway to provide an opportunity for additional information and / or correction of fact.
- Finalisation of the Report based on comments/ additional information provided by Cleanaway.

2.1 Personnel

The Hazard Audit was undertaken by the following multi-disciplinary team (Table 2-1)

Table 2-1 Audit team members and role

Name	Role
Peter Stone	Process Engineer, Team Lead
Paget Blackburn	Instrument and Electrical Engineer
Ken Ashton	Mechanical Engineer
Keith Thomsen-Wright	Structural Engineer
David Lockley	Process Safety Engineer, Peer Review

Each member of the team attended the site inspection. It is noted David Lockley attended the site inspection with the IEA audit team on the 10 September 2018.

Personnel interviewed during the site visit included the following:

- Nicholas Welbourne, Engineer
- Rick Merrick, Maintenance Supervisor
- Jack Wilkerson, Instrument Technician

3.0 Site Inspection Observations

The photograph log provided as Appendix A provide an indication of the general observations made or referenced during the site inspection.

4.0 Hazard Audit Findings

The findings of the Hazard Audit including recommendations are presented in Appendix B.

The hazard audit findings have incorporated the findings from inspections, Management of Change review and review of the 2008 Hazard Audit.

5.0 Review of 2008 Hazard Audit Recommendations

The review of the 2008 Hazard Audit recommendations is provided as Appendix C. The actions from this review have been consolidated into the hazard audit findings included in Appendix B.

6.0 Conclusion

The hazard audit reviewed a selection of changes completed over the past ten years, reviewed the status of the last audit actions and completed a site inspection. The following key areas of focus are required to continually improve safety on site:

- Understanding on Critical Instrumented Protective System (Rec – 30, 31, 34)
- Maintenance of Critical Instrumented Protective System (Rec – 30, 31, 34)
- Continuing improvement of the maintenance system (Rec – 20, 34, 43)
- More rigorous application of the plant modification system (Rec – 37)
- Diligence to documentation

The hazard audit identified 48 recommendations for improvement to manage the hazards on site. As per the 2008 hazard audit additional resourcing may be required to close the gaps identified in a timely manner.

Appendix A

Site Inspection Observations

Observation Number:

OBS # 1

**Recommendation
Number:**

Rec - 1

Description:

Damage to upper portion of
western bund wall and loss
of seal at expansion joint.



Observation Number:

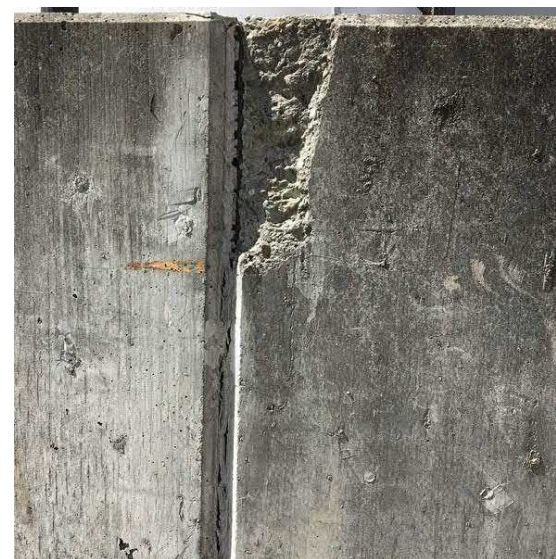
OBS # 1

**Recommendation
Number:**

Rec - 1

Description:

Close up of damage to
bund wall



Observation Number:

OBS # 2

**Recommendation
Number:**

Rec - 2

Description:

Bund wall showing crack in
repaired joint



Observation Number:

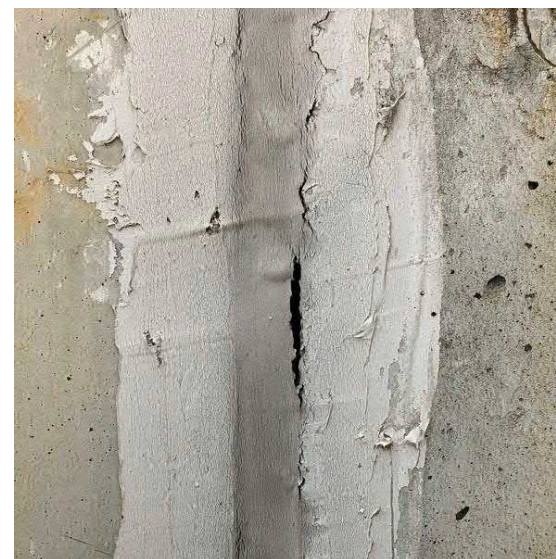
OBS # 2

**Recommendation
Number:**

Rec - 2

Description:

Close up of crack in bund
wall repair



Observation Number:

OBS # 2

**Recommendation
Number:**

Rec - 2

Description:

Base of STK-4 showing evidence of repair and upkeep. Cracking has formed between tank foundation and bund floor.



Observation Number:

OBS # 3

**Recommendation
Number:**

Rec - 3

Description:

Bottom of spill deflection sheeting for Sodium Hydroxide IBCs located at Depot 2A ends above the top surface of the process area perimeter bund, which makes it possible for spill to travel to the outside of the bund.



Observation Number:

OBS # 3

**Recommendation
Number:**

Rec - 3

Description:

Splash protection finishing on the top of the bund wall



Observation Number:

OBS # 4

**Recommendation
Number:**

Rec - 4

Description:

Pails of water treatment chemicals stored adjacent the exterior of the southern wall of the Boiler Room are overhanging the edge of their portable bund.



Observation Number:

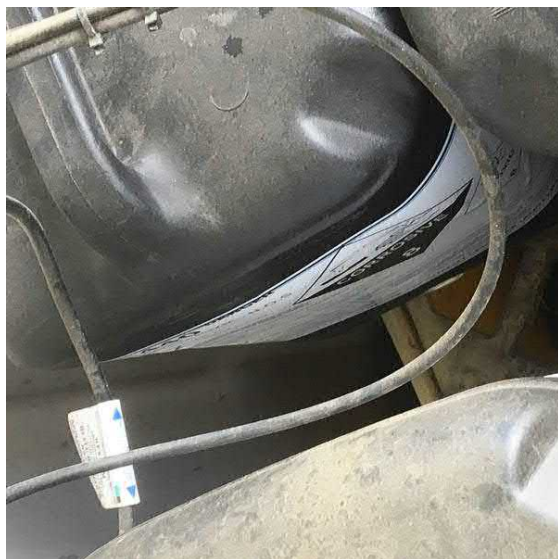
OBS # 4

Recommendation Number:

Rec - 4

Description:

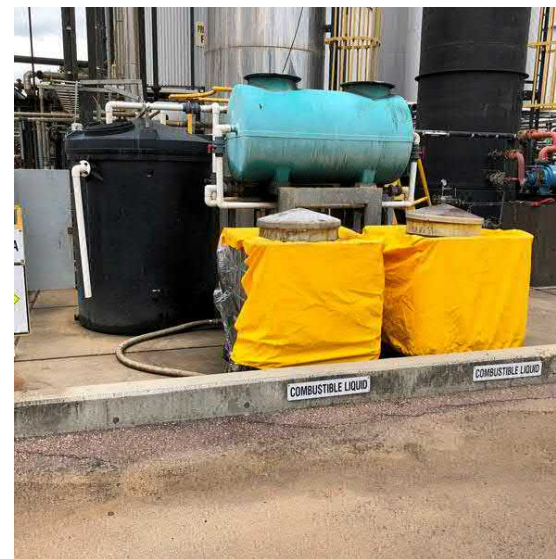
Pails of water treatment chemicals stored adjacent the exterior of the southern wall of the Boiler Room are overhanging the edge of their portable bund.

**Observation Number:**

OBS # 5

Recommendation Number:**Description:**

Oily water separator IBC's were inside the bund and also had protective cover to direct potential leaks from tanks into the bund

**Observation Number:**

OBS # 7

Recommendation Number:**Description:**

Copy of bridge register from the control room including bridge on and bridge off dates.

Transpacific Bridging register				
Number	Bridge tag number	Date Bridge on	Technician	Date Bridge off
1	N/A	11-11-15	D. Grant	11-11-15
2	N/A	11-11-15	D. Grant	11-11-15
3	N/A	11-11-15	D. Grant	11-11-15
4	N/A	11-11-15	D. Grant	11-11-15
5	N/A	11-11-15	D. Grant	11-11-15
6	N/A	11-11-15	D. Grant	11-11-15
7	N/A	11-11-15	D. Grant	11-11-15
8	N/A	11-11-15	D. Grant	11-11-15
9	N/A	11-11-15	D. Grant	11-11-15
10	N/A	11-11-15	D. Grant	11-11-15
11	N/A	11-11-15	D. Grant	11-11-15
12	N/A	11-11-15	D. Grant	11-11-15
13	N/A	11-11-15	D. Grant	11-11-15
14	N/A	11-11-15	D. Grant	11-11-15
15	N/A	11-11-15	D. Grant	11-11-15
16	N/A	11-11-15	D. Grant	11-11-15
17	N/A	11-11-15	D. Grant	11-11-15
18	N/A	11-11-15	D. Grant	11-11-15
19	N/A	11-11-15	D. Grant	11-11-15
20	N/A	11-11-15	D. Grant	11-11-15
21	N/A	11-11-15	D. Grant	11-11-15
22	N/A	11-11-15	D. Grant	11-11-15
23	N/A	11-11-15	D. Grant	11-11-15
24	N/A	11-11-15	D. Grant	11-11-15
25	N/A	11-11-15	D. Grant	11-11-15
26	N/A	11-11-15	D. Grant	11-11-15
27	N/A	11-11-15	D. Grant	11-11-15
28	N/A	11-11-15	D. Grant	11-11-15
29	N/A	11-11-15	D. Grant	11-11-15
30	N/A	11-11-15	D. Grant	11-11-15
31	N/A	11-11-15	D. Grant	11-11-15
32	N/A	11-11-15	D. Grant	11-11-15
33	N/A	11-11-15	D. Grant	11-11-15
34	N/A	11-11-15	D. Grant	11-11-15
35	N/A	11-11-15	D. Grant	11-11-15
36	N/A	11-11-15	D. Grant	11-11-15
37	N/A	11-11-15	D. Grant	11-11-15
38	N/A	11-11-15	D. Grant	11-11-15
39	N/A	11-11-15	D. Grant	11-11-15
40	N/A	11-11-15	D. Grant	11-11-15
41	N/A	11-11-15	D. Grant	11-11-15
42	N/A	11-11-15	D. Grant	11-11-15
43	N/A	11-11-15	D. Grant	11-11-15
44	N/A	11-11-15	D. Grant	11-11-15
45	N/A	11-11-15	D. Grant	11-11-15
46	N/A	11-11-15	D. Grant	11-11-15
47	N/A	11-11-15	D. Grant	11-11-15
48	N/A	11-11-15	D. Grant	11-11-15
49	N/A	11-11-15	D. Grant	11-11-15
50	N/A	11-11-15	D. Grant	11-11-15
51	N/A	11-11-15	D. Grant	11-11-15
52	N/A	11-11-15	D. Grant	11-11-15
53	N/A	11-11-15	D. Grant	11-11-15
54	N/A	11-11-15	D. Grant	11-11-15
55	N/A	11-11-15	D. Grant	11-11-15
56	N/A	11-11-15	D. Grant	11-11-15
57	N/A	11-11-15	D. Grant	11-11-15
58	N/A	11-11-15	D. Grant	11-11-15
59	N/A	11-11-15	D. Grant	11-11-15
60	N/A	11-11-15	D. Grant	11-11-15
61	N/A	11-11-15	D. Grant	11-11-15
62	N/A	11-11-15	D. Grant	11-11-15
63	N/A	11-11-15	D. Grant	11-11-15
64	N/A	11-11-15	D. Grant	11-11-15
65	N/A	11-11-15	D. Grant	11-11-15
66	N/A	11-11-15	D. Grant	11-11-15
67	N/A	11-11-15	D. Grant	11-11-15
68	N/A	11-11-15	D. Grant	11-11-15
69	N/A	11-11-15	D. Grant	11-11-15
70	N/A	11-11-15	D. Grant	11-11-15
71	N/A	11-11-15	D. Grant	11-11-15
72	N/A	11-11-15	D. Grant	11-11-15
73	N/A	11-11-15	D. Grant	11-11-15
74	N/A	11-11-15	D. Grant	11-11-15
75	N/A	11-11-15	D. Grant	11-11-15
76	N/A	11-11-15	D. Grant	11-11-15
77	N/A	11-11-15	D. Grant	11-11-15
78	N/A	11-11-15	D. Grant	11-11-15
79	N/A	11-11-15	D. Grant	11-11-15
80	N/A	11-11-15	D. Grant	11-11-15
81	N/A	11-11-15	D. Grant	11-11-15
82	N/A	11-11-15	D. Grant	11-11-15
83	N/A	11-11-15	D. Grant	11-11-15
84	N/A	11-11-15	D. Grant	11-11-15
85	N/A	11-11-15	D. Grant	11-11-15
86	N/A	11-11-15	D. Grant	11-11-15
87	N/A	11-11-15	D. Grant	11-11-15
88	N/A	11-11-15	D. Grant	11-11-15
89	N/A	11-11-15	D. Grant	11-11-15
90	N/A	11-11-15	D. Grant	11-11-15
91	N/A	11-11-15	D. Grant	11-11-15
92	N/A	11-11-15	D. Grant	11-11-15
93	N/A	11-11-15	D. Grant	11-11-15
94	N/A	11-11-15	D. Grant	11-11-15
95	N/A	11-11-15	D. Grant	11-11-15
96	N/A	11-11-15	D. Grant	11-11-15
97	N/A	11-11-15	D. Grant	11-11-15
98	N/A	11-11-15	D. Grant	11-11-15
99	N/A	11-11-15	D. Grant	11-11-15
100	N/A	11-11-15	D. Grant	11-11-15

Observation Number:

OBS # 8

Recommendation Number:

Rec - 6

Description:

Copy bridging procedure

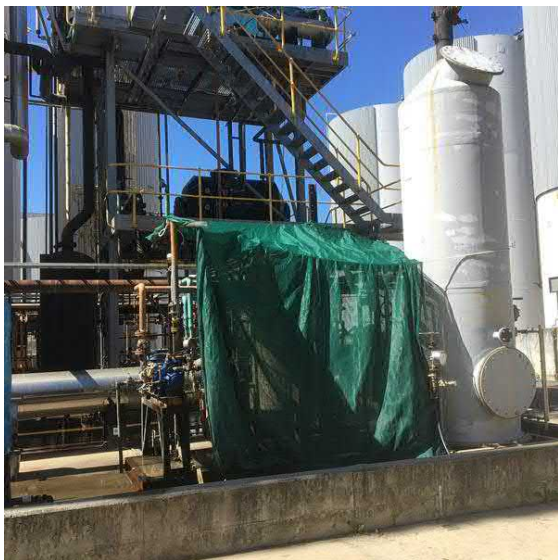
Electrical Bridging Procedure	
1 Purpose	
The purpose of his procedure is to ensure:	
<ul style="list-style-type: none">Any electrical bridges, bypasses or disabements of any electrical control system are carried out in a systematic and safe manner.Additional controls are implemented where required to maintain the safe operation of the electrical equipment.A detailed system of traceability and history for any electrical bridge temporarily installed on Transpacific Refiners RutherfordElectrical bridges do not remain in service for a period of time greater than the minimum amount of time to repair the associated fault.	
2 Scope	
This procedure applies to:	
<ul style="list-style-type: none">All electrical equipment at Transpacific Refiners RutherfordAll electrical employees of Transpacific Refiners RutherfordAll electrical contractors including OEMs working at Transpacific Refiners Rutherford	
3 Definitions	
Term	Definition
Bridge	To place an electrical bypass on a system by means of physical electrical joins or via software controls
4 Reference	
<ul style="list-style-type: none">Occupational Health and Safety Act 2000AS/NZS 3800:2005 Series Electrical Apparatus for Explosive Gas Atmospheres -- Repair and overhaulsAS/NZS 60079 Series Electrical Apparatus for Explosive Gas AtmospheresAS 61508 Series Functional safety of electrical/ electronic/programmable electronic safety-related systems	

Observation Number:

OBS # 13

Recommendation Number:**Description:**

Water is being sprayed onto the exterior of the Condenser and Vacuum Pump. Shade Cloth is also installed over this equipment. Risk assessment demonstrates awareness of accelerated corrosion issues.

**Observation Number:**

OBS # 13

Recommendation Number:**Description:**

Fractionation Vacuum Pump with External Water Application and signs of visual corrosion

**Observation Number:**

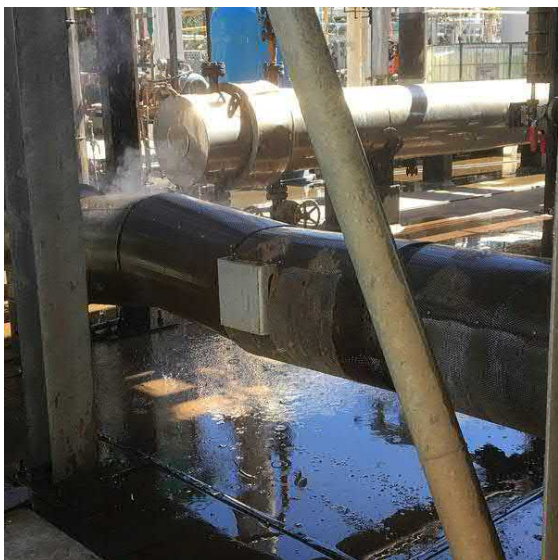
OBS # 14

Recommendation Number:

Rec - 9

Description:

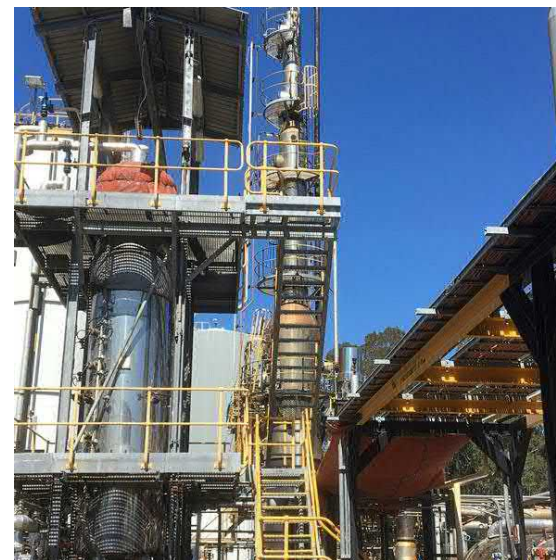
Displaced personnel heat protection guarding on "Oil Rundown" exchanger, EX-07, has created hot exposed surfaces and in other areas the guarding is touching or too close to the heat exchanger shell to be effective.

**Observation Number:**

OBS # 15

Recommendation Number:**Description:**

Removable thermal insulating blanket installed over reactor shell extension piece (both reactors)



Observation Number:

OBS # 15

**Recommendation
Number:**

Description:

Insulation Changed on
Reactor Extension Piece



Observation Number:

OBS # 16

**Recommendation
Number:**

Rec - 10

Description:

There are multiple sections of plant where the original insulation and solid aluminium cladding have been disturbed. Potential to increase the risk for under insulation corrosion (CUI) or other contamination of insulation with potential hazardous consequences.



Observation Number:

OBS # 18

**Recommendation
Number:**

Rec - 11

Description:

Junction Box in rear of room is not independently supported - only supported from cables connected to it. This is not a good practice.



Observation Number:

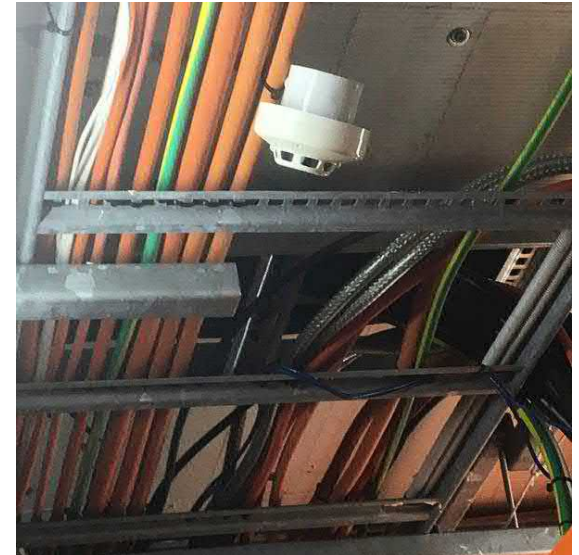
OBS # 19

**Recommendation
Number:**

Rec - 12

Description:

Overhead Smoke Detector/ Fire detector is not independently supported - cable-tied to cables in vicinity. This is not a good practice.



Observation Number:

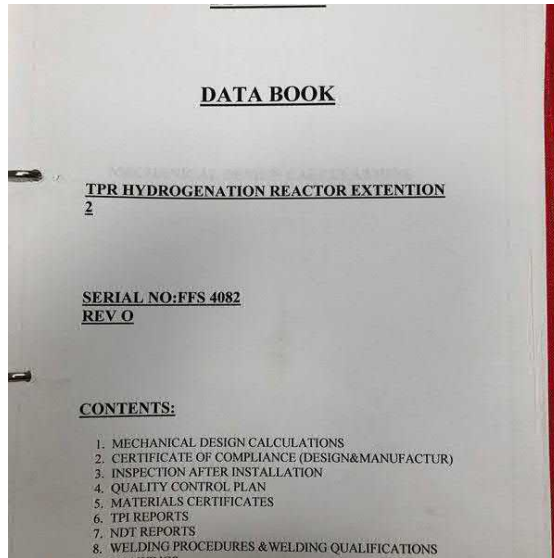
OBS # 22

**Recommendation
Number:**

Rec - 15

Description:

Example MDR for hydro-
genation reactor extension



Observation Number:

OBS # 24

**Recommendation
Number:**

Rec - 17

Description:

Example pieces of pipe
removed from the plant for
testing



Observation Number:

OBS # 25

**Recommendation
Number:**

Rec - 18

Description:

Major equipment (e.g.
pump, control valves, in-
strumentation) are la-
belled. Some minor equip-
ment (e.g. manual isola-
tion) are labelled while
others are not.



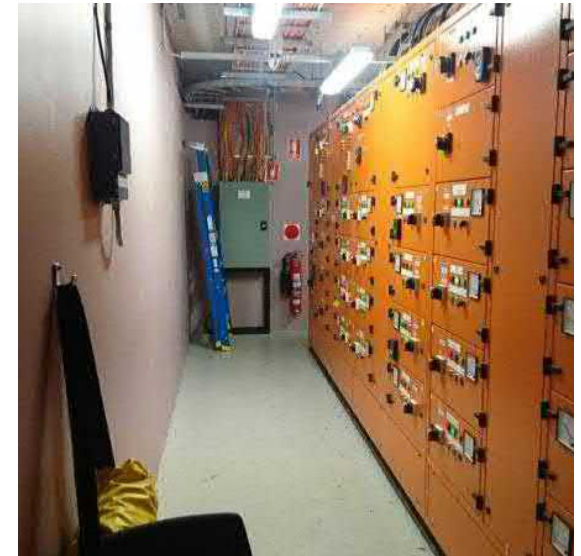
Observation Number:

OBS # 29

**Recommendation
Number:**

Description:

Switch rooms were noted
to be in tidy and clean con-
dition



Observation Number:

OBS # 29

**Recommendation
Number:**

Description:

Switch rooms were noted
to be in tidy and clean con-
dition



Observation Number:

OBS # 29

**Recommendation
Number:**

Description:

Switch rooms were noted
to be in tidy and clean con-
dition



Observation Number:

OBS # 30

**Recommendation
Number:**

Description:

Maintenance workshop
was noted to be in tidy and
clean condition. Cables
were not run along the
floor.



Observation Number:

OBS # 30

**Recommendation
Number:**

Description:

Maintenance workshop
was noted to be in tidy and
clean condition.



Observation Number:

OBS # 30

**Recommendation
Number:**

Description:

Maintenance workshop
was noted to be in tidy and
clean condition.



Observation Number:

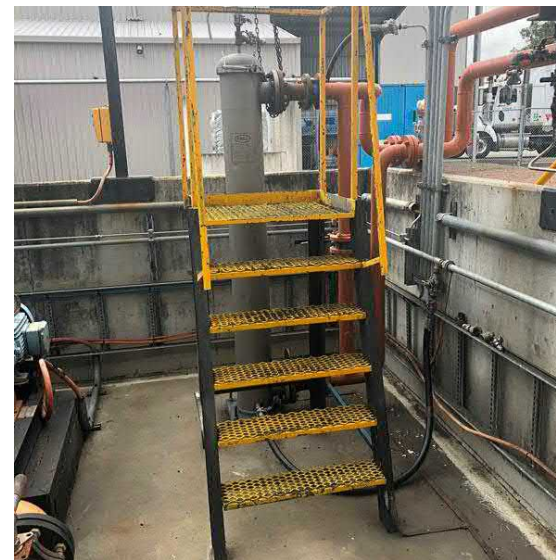
OBS # 31

**Recommendation
Number:**

Rec - 21

Description:

Example of platform non-
compliant with relevant
Australian Standards



Observation Number:

OBS # 31

**Recommendation
Number:**

Rec - 21

Description:

Example of platform non-
compliant with relevant
Australian Standards



Observation Number:

OBS # 32

**Recommendation
Number:**

Rec - 22

Description:

Permanent lifting devices
generally appear to have
not been engineered, and
have no identification or
capacity markings.



Observation Number:

OBS # 32

Recommendation Number:

Rec - 22

Description:

Permanent lifting devices generally appear to have not been engineered, and have no identification or capacity markings.



Observation Number:

OBS # 33

Recommendation Number:

Description:

Tanker is grounded via a Earthing System



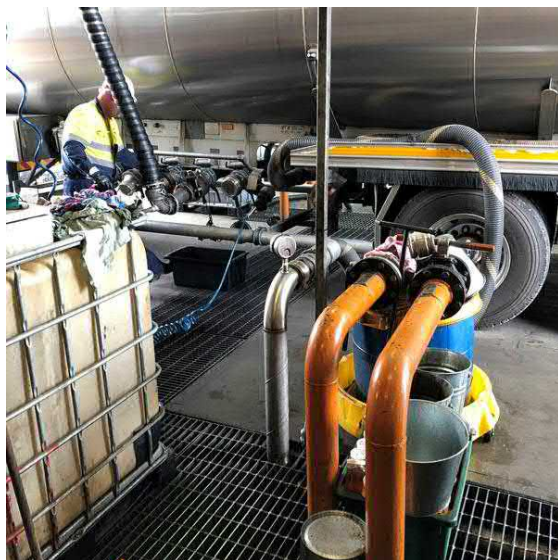
Observation Number:

OBS # 33

Recommendation Number:

Description:

Truck loading showing ergonomic hose installation, vapour return and earthing strap.



Observation Number:

OBS # 38

Recommendation Number:

Rec - 24

Description:

DGs kept in a custom built recess in the floor. There is no visual indication of which floor space can be occupied by DGs.

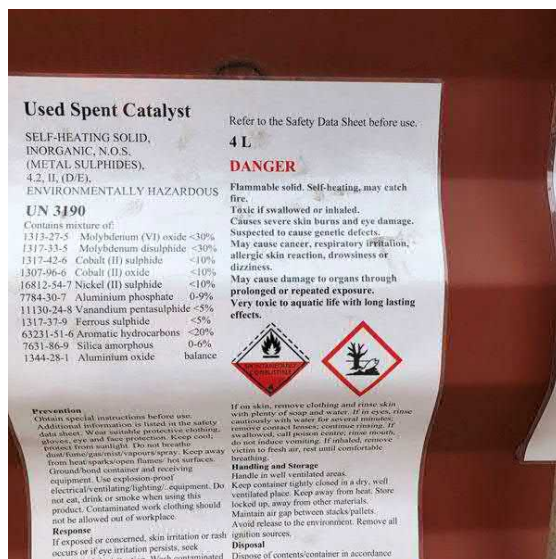


Observation Number:

OBS # 39

Recommendation Number:**Description:**

Spent catalyst had been drummed and stored in shipping containers ready for shipping. Containers were appropriately labelled

**Observation Number:**

OBS # 39

Recommendation Number:**Description:**

Spent catalyst had been drummed and stored in shipping containers ready for shipping. Containers were appropriately labelled

**Observation Number:**

OBS # 40

Recommendation Number:

Rec - 25

Description:

IBC marked as GAC. Example of packaging labelling inadequate

**Observation Number:**

OBS # 40

Recommendation Number:

Rec - 25

Description:

Legacy container with Noise and Eye hazard sign that are potentially no longer applicable Flammable goods (e.g. Paints) store inside. Dispose of if no longer required



Observation Number:

OBS # 40

**Recommendation
Number:**

Rec - 25

Description:

Peroxide Depot 1 B within
DG Store



Observation Number:

OBS # 41

**Recommendation
Number:**

Description:

Various small packages of
DGs associated with work-
shop activities are appropri-
ately kept in a Flammable
Liquid Storage Cabinet
(FLSC). Generally FLSCs
should not be located in
corridors.



Observation Number:

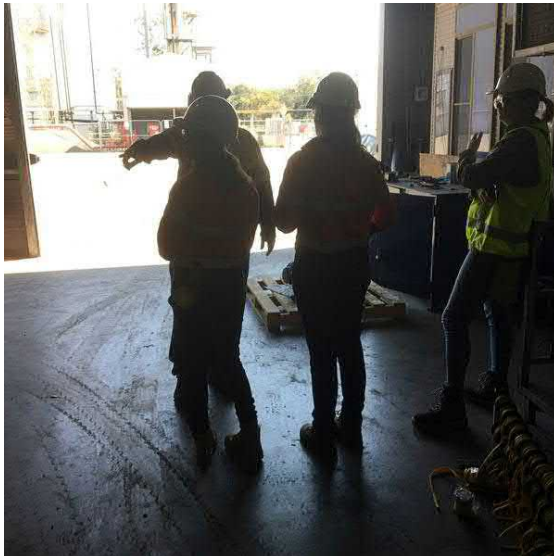
OBS # 41

**Recommendation
Number:**

Rec - 26

Description:

Workshop FLSC - Pallet Trip
Hazard on way to Fire Ex-
tinguisher 2



Observation Number:

OBS # 42

**Recommendation
Number:**

Rec - 27

Description:

Filter storage container
(blue container) has rema-
nence of previous danger-
ous goods labelling



Observation Number:

OBS # 43

**Recommendation
Number:**

Rec - 28

Description:

Fire fighting foam stored on spill containment. Spill containment contained rainwater reducing spill containment capacity



Observation Number:

OBS # 44

**Recommendation
Number:**

Description:

Towns water is used for process purposes as well as domestic use - back flow prevention installed in the of the towns water valve manifold.



Observation Number:

OBS # 44

**Recommendation
Number:**

Description:

Emergency Isolation point for natural gas sign posted



Observation Number:

OBS # 44

**Recommendation
Number:**

Description:

Emergency isolation point for electricity to refinery



Observation Number:

OBS # 45

Recommendation Number:

Rec - 29

Description:

Fire extinguisher base is touching top of process area perimeter bund. This can initiate corrosion of the base of the extinguisher.

**Observation Number:**

OBS # 46

Recommendation Number:**Description:**

Fire Hydrant with compliant test tag

**Observation Number:**

OBS # 46

Recommendation Number:**Description:**

Fire Pumps and Accessories visually appeared well kept.

**Observation Number:**

OBS # 46

Recommendation Number:**Description:**

Diesel pumps with new fire wall between diesel pumps



Observation Number:

OBS # 46

**Recommendation
Number:**

Description:

Fire alarm button in the
process area clearly sign-
posted and unobstructed



Observation Number:

OBS # 62

**Recommendation
Number:**

Description:

Site controls access onto
and off the Plant Area via
the Control Room Building.
A space is provided in the
Control Room Building just
before exiting onto the
Plant Area for stowing
mobile telephones or other
similar small personal elec-
tronic devices.



Observation Number:

OBS # 62

**Recommendation
Number:**

Description:

Stowing mobile telephones
before accessing the plant



Observation Number:

OBS # 70

**Recommendation
Number:**

Description:

Group isolation boards
available in a prominent
location. Isolation locks
tags with locks



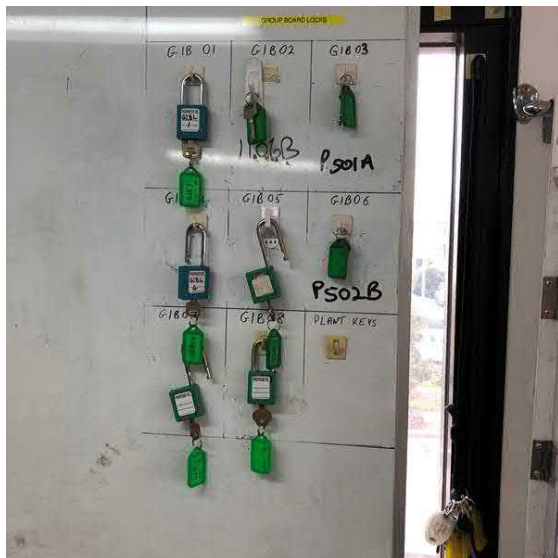
Observation Number:

OBS # 70

**Recommendation
Number:**

Description:

Demonstration of isolation
lock system in place



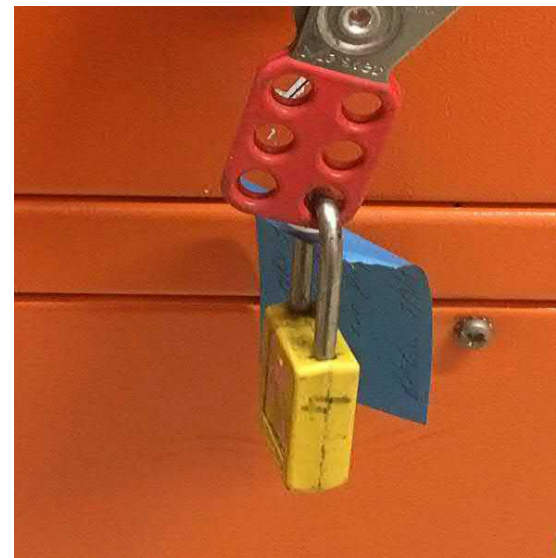
Observation Number:

OBS # 70

**Recommendation
Number:**

Description:

Demonstration of isolation
lock in place



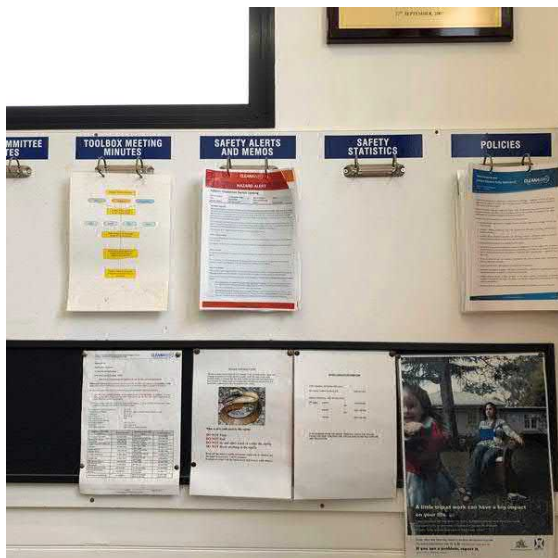
Observation Number:

OBS # 71

**Recommendation
Number:**

Description:

Noticeboards contained
Safety information and
policies in prominent loca-
tion in control room



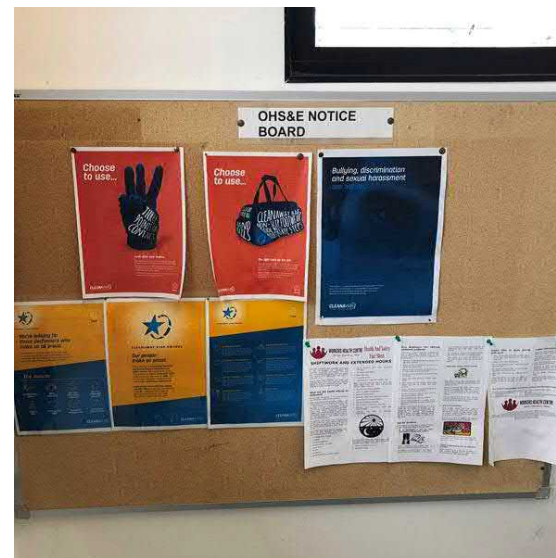
Observation Number:

OBS # 71

**Recommendation
Number:**

Description:

Safety Notice board



Observation Number:

OBS # 72

**Recommendation
Number:****Description:**

Safety Data Sheets in all of
the key areas (Office, DG
Building, Maintenance,
Control Room)

**Observation Number:**

OBS # 72

**Recommendation
Number:****Description:**

Safety Data Sheets availa-
ble in Dangerous Goods
Building

**Observation Number:**

OBS # 72

**Recommendation
Number:****Description:**

Safety Data Sheets in
Maintenance Office

**Observation Number:**

OBS # 73

**Recommendation
Number:****Description:**

Example of regular toolbox
talks being held.

Site location:		Rutherford	State/Region:	NSW
Note: All workers/contractors that attended this meeting are to place their name and sign below. Distribution list: Notice boards, Toolbox minutes file, WorkSafe committee.				
NAME	SIGNATURE	CAMPUS (Including Contractors)		
J. M. G. G. G.	[Signature]	CWY		
M. S. K. E. W.	[Signature]	CWY		
D. M. S. B. E. R. G. E.	[Signature]	CWY		
G. W. I. N. T. E. R.	[Signature]	CWY		
A. P. H. I. L. I. P. S. T.	[Signature]	CWY		
R. C. O. O. K. E. S.	[Signature]	CWY		
B. H. O. O. S. E. R.	[Signature]	CWY		
List below the names of those workers not in attendance for the purpose of conducting a follow-up Toolbox Talk session:				
Follow-up Toolbox Talk session to be conducted on:				
A diary/reminder item has been documented to ensure that this Toolbox Talk session is provided to those workers not in attendance.				
[Person presenting Toolbox Talk] Add		[Supervisor/Branch Manager]		

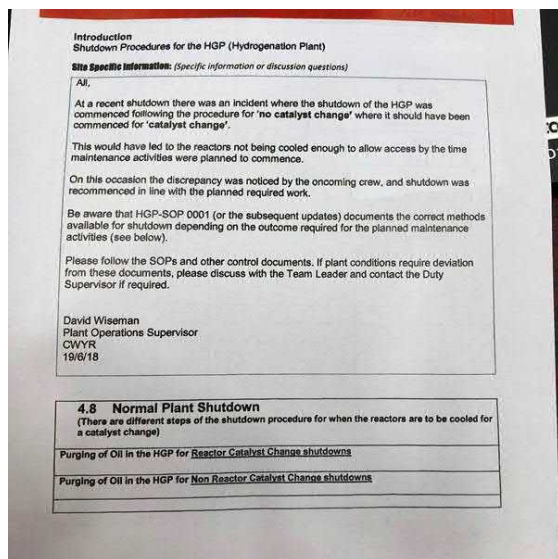
Observation Number:

OBS # 73

**Recommendation
Number:**

Description:

Toolbox talks also highlight changes to SOP



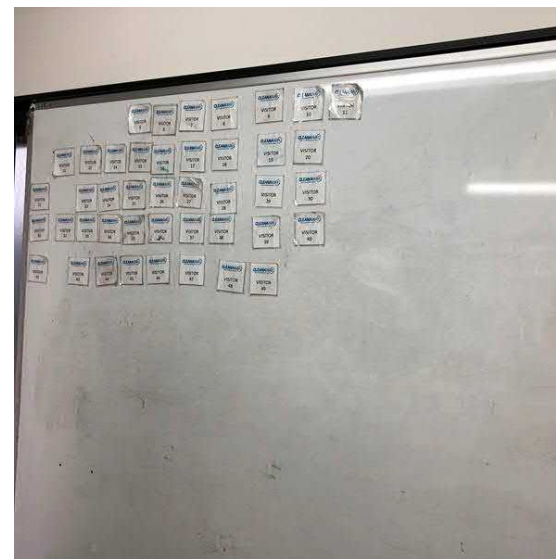
Observation Number:

OBS # 75

**Recommendation
Number:**

Description:

Site controls access onto and off the Plant Area via the Control Room Building. Board showing visitor tags



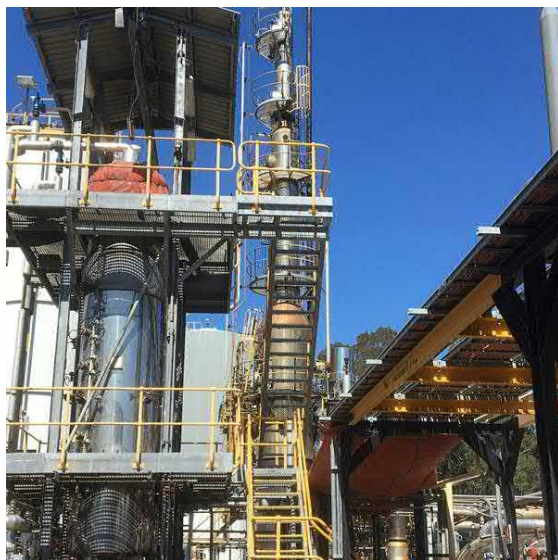
Observation Number:

OBS # 76

**Recommendation
Number:**

Description:

Reactor-Fractionation Tower-Windsock



Observation Number:

OBS # 76

**Recommendation
Number:**

Description:

Fractionation Tower and Windsock in good condition



Observation Number:

OBS # 77

**Recommendation
Number:**

Description:

Emergency Egress Gates are provided at several locations around the Plant perimeter. The Gates are clearly sign-posted and not locked. Access to the operating mechanism from outside the gate is blocked with a barrier plate.



Observation Number:

OBS # 77

**Recommendation
Number:**

Description:

Emergency Egress Gate on Plant Perimeter with self closing mechanism



Observation Number:

OBS # 77

**Recommendation
Number:**

Description:

Emergency gate on perimeter fence with good access and kept clear of obstacles



Observation Number:

OBS # 78

**Recommendation
Number:**

Description:

The Domestic Water to the Refinery isolation valve is clearly identified and readily accessible being outside the Plant Perimeter Fence.



Observation Number:

OBS # 79

**Recommendation
Number:****Description:**

Numerous Safety Showers located about the Plant. Visually appeared well kept and clear of obstructions to access. Shower were labelled and also had green lights at showers

**Observation Number:**

OBS # 84

**Recommendation
Number:**

Rec - 47

Description:

There is a large section of site that is unused and has redundant manufacturing building on it. The buildings have deteriorated over time. Individual sections of sheeting remain on the building and pose a risk of being torn off in high winds.

**Observation Number:**

OBS # 84

**Recommendation
Number:**

Rec - 47

Description:

Redundant building with structurally unsound timber work

**Observation Number:**

OBS # 86

**Recommendation
Number:****Description:**

Roadways were now sealed since 2008 audit



Appendix B

Hazard Audit Findings

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 1	Dangerous Goods - Bunding	Bunds	Tank Farm	Damage to upper portion of western bund wall and loss of seal at expansion joint. Cracking noted in bund floor slab, with evidence of previous repairs having been undertaken (cracks have been chased out and sealed at some locations, or over coated with a sealing membrane at others).	Yes	Non-compliant	LOW	Rec - 1	Inspect all existing bund wall joints, repair as necessary to ensure liquid-tightness, and include inspection of bund wall joints as a specific item in plant maintenance planning.	Yes
OBS # 2	Dangerous Goods - Bunding	Bunds	Process Area	Evidence of regular repairs and maintenance to bunds could be seen. Recent dry weather may have caused further movement in bunds. Visual inspection of perimeter bund wall found integrity issues with vertical wall joints. Incidence of tanks moving particularly STK-4. Evidence of regular repairs	Yes	Non-compliant	LOW	Rec - 2	Repair existing cracks in joints. Instigate a regular inspection and repair program for all bunds	Yes
OBS # 3	Dangerous Goods - Bunding	Bunds	Fractionation Plant	Bottom of spill deflection sheeting for Sodium Hydroxide IBCs located at Depot 2A adjacent the western perimeter bund wall in the Fractionation Plant ends above the top surface of the process area perimeter bund, which makes it possible for spill to travel to the outside of the bund.	Yes	Non-compliant	LOW	Rec - 3	Modify	Yes
OBS # 4	Dangerous Goods - Bunding	Bunds	Cooling Towers	Pails of water treatment chemicals stored adjacent the exterior of the southern wall of the Boiler Room are overhanging the edge of their portable bund.	Yes	Non-compliant	LOW	Rec - 4	Centre pails on portable bund	Yes
OBS # 5	Dangerous Goods - Bunding	Bunds	Oily Water Separator	Oily water separator IBC's were inside the bund and also had protective cover to direct potential leaks from tanks into the bund	Yes	Adequate				
4.4 IEA - Hazard Audit Item 3.4.1 Plant and Equipment										
OBS # 6	Plant and Equipment	Occupied Buildings	Control Room	Control Room Window faces plant and is not wire-reinforced. Have hazardous event effect distances been determined and is window design consistent with them.		Not Verified	MEDIUM	Rec - 5	Confirm if the window is adequate for the effects of possible accident scenarios in the plant area.	
OBS # 7	Plant and Equipment	Inhibits and Impairments	Control Room	Bridge Register exists and includes identification of hazard involved. Kept in Control Room.	Yes	Adequate				
OBS # 8	Plant and Equipment	Inhibits and Impairments	Control Room	Bridge register includes when bridge was installed and when bridge was removed. Some items on the bridge register have been in place for an extended period which is beyond the intent of repair ASAP as per the procedure. One item (Bridge 5) has been in place since 10-12-2015	Yes	Non-compliant	MEDIUM	Rec - 6	Repair faults that have been bridge for extended periods or alternatively complete a plant modification to permanently assess and implement the change	
OBS # 9	Plant and Equipment	Inhibits and Impairments	Control Room	Bridging procedure exists and requires items to be repaired ASAP. No definition on how long bridges can remain in place without review.		Non-compliant	MEDIUM	Rec - 7	Update bridging procedure stipulating how long a bridge can be in place before it needs to be reviewed before being extended.	
OBS # 10	Plant and Equipment	Inhibits and Impairments	Control Room	Bridging procedure provides guidance on who needs to authorise the bridging of CIPS. A risk assessment is done to determine if the controls in place of the bridge adequately compensate for the reduction in the protection by bridging the protective system.		Non-compliant	MEDIUM	Rec - 8	When installing bridges risk assessments should refer to a Risk assessment of CIPS (e.g. LOPA, Calibrated Risk Assessment) as per AS/IEC 61511 to understand the effect of removing the CIPS	
OBS # 11	Plant and Equipment	Inhibits and Impairments	Control Room	There are some specific activities that require bridging (e.g. testing heater after maintenance and prior to start-up). This task as it is a routine maintenance tasks has a specific bridging procedure.		Adequate				
OBS # 12	Plant and Equipment	Operating Procedures	Control Room	Permit to Work (PTW) and lock out system in accordance with industry practices		Adequate				
OBS # 13	Plant and Equipment	Temporary Change	Fractionation Plant	Water is being sprayed onto the exterior of the Condenser and Vacuum Pump. Shade Cloth is also installed over this equipment. Site explained this is a consequence of increasing plant throughput beyond current heat removal capacity. Plant modifications are being assessed though no budget has been allocated as at the date of the audit. Risk assessment demonstrates awareness of accelerated corrosion issues.	Yes	Adequate				
OBS # 14	Plant and Equipment	Guarding	Process Area	Displaced personnel heat protection guarding on "Oil Rundown" exchanger, EX-07, has created hot exposed surfaces and in other areas the guarding is touching or too close to the heat exchanger shell to be effective.	Yes	Needs Improvement	LOW	Rec - 9	Repair heat protection	

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 15	Plant and Equipment	Management of Change	Reactor Section	Removable thermal insulating blanket installed over reactor shell extension piece (both reactors) rather than matching the insulation and cladding for the balance of the reactor shell. Potential to increase the risk for under insulation corrosion or other contamination of insulation with potential hazardous consequences? The site advised that the vessel material is SS321 and hence does not suffer Under Insulation Corrosion.	Yes	Adequate				
OBS # 16	Plant and Equipment	Management of Change	Various pipework	There are multiple sections of plant where the original insulation and solid aluminium cladding have been disturbed and not replaced "like for like". Potential to increase the risk for under insulation corrosion (CUI) or other contamination of insulation with potential hazardous consequences. Was advised the majority of pipes were not carbon steel and not susceptible to CUI.	Yes	Needs Improvement	LOW	Rec - 10	Repair lagging to prevent water ingress and possible CUI while reducing energy loss	
OBS # 17	Plant and Equipment	Storage	Tank Farm	Bulk Tanks have an overflow detection system. The Tanks overflow is via an Overflow Pot fitted with a sensor to detect the presence of overflow. This overflow detection is interlocked with process plant shutdown. Globally, a significant number of major incidents have occurred when a bulk tank of hazardous substance overflows.		Adequate				
OBS # 18	Plant and Equipment	Electrical Installation	Electrical Switch Room	Junction Box in rear of room is not independently supported - only supported from cables connected to it. Not good practice.	Yes	Needs Improvement	LOW	Rec - 11	Correct	No
OBS # 19	Plant and Equipment	Electrical Installation	Electrical Switch Room	Overhead Smoke Detector/Fire detector is not independently supported - cable-tied to cables in vicinity. Not good practice.	Yes	Needs Improvement	LOW	Rec - 12	Correct	No
OBS # 20	Plant and Equipment	Earthing	All	A completed earth strapping system testing check sheet was provided. 4 additional items were manually added to the list. Document with no document or revision number.		Needs Improvement	LOW	Rec - 13	Document to be updated with additional locations and given a document number and revision number	
OBS # 21	Plant and Equipment	Earthing	All	Earth strapping system testing provided. 4 items presented with resistance of 0.6 Ohms or greater. No acceptance criteria shown for the tests		Needs Improvement	LOW	Rec - 14	Include acceptance criteria on test sheet. Investigate if further action is required for these values.	
OBS # 22	Plant and Equipment	Mechanical Integrity	Pressure Vessels	Pressure vessel registration certificates available Item registration certificates available Regular inspections conducted and reported by qualified company Pressure vessel inspections available Material Data Registers available for modifications	Yes	Needs Improvement	LOW	Rec - 15	Documents are located in multiple areas. Recommend creating central location and system for filing statutory pressure vessel information	
OBS # 23	Plant and Equipment	Mechanical Integrity	Pressure Vessels	It was cited that the pressure vessel inspector determines the basis for Boiler and pressure vessel inspection intervals.		Needs Improvement	MEDIUM	Rec - 16	Either Cleanaway or the Cleanaway representative (pressure vessel inspected) to determine pressure vessels inspections intervals using the Hazard level (AS4343) and AS3788, Table 14.1 and inspection requirements with RBI API580	
OBS # 24	Plant and Equipment	Mechanical Integrity	Piping	Inspection of pipes has been completed based on velocity and all areas of the HGP.	Yes	Needs Improvement	LOW	Rec - 17	Prepare a documented risk based inspection plan to inspect pipework. Hazard level to be determined using AS4343. Hazard levels to be used to determine the inspection frequencies in accordance AS3788, Table 4.1, Section 14. Risk Based Inspections (RBI) to be determined in accordance with API580.	
OBS # 25	Plant and Equipment	Mechanical Integrity	Equipment labelling	Major equipment (e.g. pump, control valves, instrumentation) are labelled. Some minor equipment (e.g. manual isolation) are labelled while others are not.	Yes	Needs Improvement	LOW	Rec - 18	Recommend labelling all minor equipment and pipe contents	

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 26	Plant and Equipment	Mechanical Integrity	Non Return Valves	Non return valves can be critical items which can protect a system similar to pressure relief valves. It is not usually identified as a critical item		Needs Improvement	LOW	Rec - 19	Recommend reviewing critical non return valves in the process and include in periodic inspection. Refer to AS4343, AS3788 and API 580 for requirements in line with piping requirements	
OBS # 27	Plant and Equipment	Mechanical Integrity	Reformer	Tubes are susceptible to creep and is a function of temperature of the tubes. Tubes were replaced in Jan 2008. Design life is 100,000 hours. By calculation tubes are due for tube replacement in Jan 2019. Operating temperature is now 925 °C compared to a design temp of 960 °C Clean away advise they inspect the tubes for deformation/creep in house at least annually against allowable tolerance. (<3%), pressure vessel inspector inspects every two years.						
OBS # 28	Plant and Equipment	Equipment Reliability Management	All	A number of critical items are overdue and are being worked through		Needs Improvement	HIGH	Rec - 20	Maintain all equipment as per their statutory requirements (including CIPS)	
OBS # 29	Plant and Equipment	Housekeeping	Switch rooms	Switch rooms were noted to be in tidy and clean condition	Yes	Adequate				
OBS # 30	Plant and Equipment	Housekeeping	Maintenance Workshop	Maintenance workshop was noted to be in tidy and clean condition. Cables were not run along the floor.	Yes	Adequate				
OBS # 31	Plant and Equipment	Access	General	Several access platforms observed as being non-compliant with relevant Australian Standards	Yes	Non-compliant	MEDIUM	Rec - 21	Review platforms throughout the site and undertake modifications to achieve code compliance as necessary and appropriate.	
OBS # 32	Plant and Equipment	Mechanical Handling	General	Permanent lifting devices generally appear to have not been engineered, and have no identification or capacity markings.	Yes	Non-compliant	MEDIUM	Rec - 22	Review permanent lifting devices throughout the site and undertake engineering reviews as necessary and appropriate to confirm structural adequacy for the intended purpose. All lifting devices should be recorded in a register.	
4.4 IEA - Hazard Audit Item 3.4.2 Loading and Unloading Operations										
OBS # 33	Loading and Unloading	Static Electricity Control	Tanker Bay	Tanker is grounded via a Earthing System	Yes	Adequate				
OBS # 34	Loading and Unloading	Static Electricity Control	Tanker Bay	Site has a rule prohibiting switch loading tankers. Site inspects Tanker Compartments prior to loading and has rejected tankers with a liquid "heel". Switch loading tankers is a proven contributor to tanker fires and explosions incidents.		Adequate				
OBS # 35	Loading and Unloading	Static Electricity Control	Tanker Bay	Transfer velocity control is hard-coded into tanker loading logic and includes velocity ramp up and capped velocity settings; operator cannot increase the flowrate. Both settings are important for minimising static electricity generation during loading.		Adequate				
OBS # 36	Loading and Unloading	Static Line	Tanker Bay	A static line exists in the southern loading bay. This static line is no longer used and is no longer tested to requirements.		Needs Improvement	LOW	Rec - 23	Recommend removal or tagging out of service	
4.4 IEA - Hazard Audit Item 3.4.3 Storage										
OBS # 37	Storage	Storage Tanks	Tank Farm	Tanks fitted with an overflow pot and instrumentation to sense the presence of overflowed fluid interlocked with process		Adequate				
OBS # 38	Storage	Dangerous Goods Stores	Packaged Material Store	Some Dangerous Goods (DGs) are stored within the Packaged Materials Store. i.e. it also contains non-DGs. The Building is not purpose-built for DGs. DGs are either kept on portable bunds within the building or in a recess in the floor. The observed quantity of stored DGs is small relative to the size of the building, which is particularly large), which means it should be possible to safely store the quantity of DGs observed, provided the separation distances and other requirements of the DG Standards is maintained. Given the use of the large space by both DGs and non-DGs there is no visual indication of which floor space can be occupied by DGs.	Yes	Needs Improvement	MEDIUM	Rec - 24	Provide visual indication of spaces that may be utilised for DG storage to ensure compliance with the separation provisions of the DG Standards. Also provide visual indication of spaces to be maintained in a clear of obstruction to satisfy access to first response equipment as required in the DG Standards as well as personnel emergency access and egress.	

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 39	Storage	Dangerous Goods Stores	Spent Catalyst	Spent catalyst had been drummed and stored in shipping containers ready for shipping. Containers were appropriately labelled	Yes		Adequate			
OBS # 40	Storage	Dangerous Goods Stores	Packaged Material Store	Labelling of packages in Store is highly variable, including an IBC observed with just a large hand-written acronym: "GAC". Globally, inadequate labelling of packages has been a contributing factor to a significant number of accidents in which an inappropriate material has been used. Note: This was identified as REC 7 in the 2008 audit	Yes	Needs Improvement	MEDIUM	Rec - 25	Provide clear and unambiguous labelling on all packages.	Yes
OBS # 41	Storage	Dangerous Goods Stores	Workshop	Various small packages of DGs associated with workshop activities are appropriately kept in a Flammable Liquid Storage Cabinet (FLSC). The Cabinet is located in a corridor between the Maintenance Office and Storage Shelving and the corridor leads to another area behind the Maintenance Office. Generally FLSCs should not be located in corridors. It was also noted that access to the nearest fire extinguishers can be compromised by trip hazards.	Yes	Needs Improvement	LOW	Rec - 26	Investigate alternative locations not in a corridor for the FLSC. Ensure unobstructed access to fire extinguishers (In the present location it is recommended that a fire extinguisher be mounted on the adjacent shelving frame).	Yes
OBS # 42	Storage	Dangerous Goods Stores	Filter store	Filter storage container (blue container) has remanence of previous dangerous goods labelling	Yes	Needs Improvement	LOW	Rec - 27	Remove redundant labelling on filter storage container	
OBS # 43	Storage	Fire Fighting Foam	Various	Fire fighting foam stored on spill containment. Spill containment contained rainwater reducing spill containment capacity	Yes	Needs Improvement	LOW	Rec - 28	Provide means of removing water or preventing rain water ingress into fire fighting foam spill containment	
4.4 IEA - Hazard Audit Item 3.4.5 Fire Safety										
OBS # 44	Fire Safety	Towns water Supply to Site	Towns water Supply - Isolation & Back Flow Prevention	Towns water is used for process purposes as well as domestic use - back flow prevention installed in the of the towns water valve manifold. Isolations for Town Water, Natural Gas and Electricity labelled	Yes	Adequate				
4.4 IEA - Hazard Audit Item 3.4.5 Fire Safety										
OBS # 45	Fire Safety	Fire Extinguishers	Fractionation Plant	Fire extinguisher base is touching top of process area perimeter bund. This can initiate corrosion of the base of the extinguisher.	Yes	Needs Improvement	LOW	Rec - 29	Raise mounting bracket on column	Yes
OBS # 46	Fire Safety	Fire Water Supply	Fire Pumps	Fire Pumps and Accessories visually appeared well kept. Records of pump testing were provided and also ensures that the diesel supply is replenished preventing souring of the diesel.	Yes	Adequate				
OBS # 47	Fire Safety	Fire Water Supply	Fire Pumps	Fire Pump Testing - Regular testing undertaken by authorised testing authority		Adequate				
OBS # 48	Fire Safety	Fire Water Supply	Fire Pumps	Noted that a recent modification has been completed to place a fire wall between the fire pump sets to prevent common mode failure due to fire		Adequate				
4.4 IEA - Hazard Audit Item 3.4.6 Environmental Protection Systems										
OBS # 49				Refer to Environmental component of the Audit						
4.4 IEA - Hazard Audit Item 3.5.1 Plant Procedures, Records and Other Documentation										
OBS # 50	Plant Procedures, Records and Other Documentation	Equipment Reliability Management	Pressure Safety Valves	Pressure Safety Valve Inspection and Testing up to date. Approximately 3 x 1 week shutdowns/year provide good plant access to maintain schedule.		Adequate				
OBS # 51	Plant Procedures, Records and Other Documentation	Equipment Reliability Management	Critical Instrumented Protective Systems	Critical Instrumented Protective Systems are identified in the manual in the control room. The preamble of the manual identifies the significant hazards and the consequence. Site indicated they do not have a procedure for assessing whether a CIPS meets the risk reduction required and whether a Safety Instrumented System (SIS) is required. Further to this it is unknown if the CIPS meet the Safety Integrity Level (SIL) rating (if required). For a SIL rated system there are specific requirements for inspection and testing, which are not addressed in a manufacturer's maintenance recommendations for an individual component in isolation of the system of which it is a part. Additionally, testing frequencies may be greater than those recommended by a component manufacturer.		Needs Improvement	HIGH	Rec - 30	Risk assess CIPS (e.g. LOPA, Calibrated Risk Assessment) as per AS/IEC 61511 to determine the requirements for the CIPS including requirements (if necessary) to be SIL rated and SIL rating required.	

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 52	Plant Procedures, Records and Other Documentation	Equipment Reliability Management	Critical Instrumented Protective Systems	The testing of loops/Critical Instrumented Protective Systems (CIPS) and process trips was reviewed. Evidence of some individual component testing but no evidence for other components. The testing of process safety trips is completed on component basis rather than an end to end basis. This can lead to a situation where critical trips may not function not tested end to end. Testing of equipment is generally based on vendor information, condition of service, the type of equipment and statutory requirements. As stated in Cleanaway's Hydrogenation Plant Operating Instructions, HGP-SOP 0001: <i>"When processing work is done at high pressure and high temperature, significant risks exist at the interfaces of high pressure (HP) and low pressure (LP) systems. The risk involved is that of either HP breakthrough or backflow, of liquids or gases, to an LP system which is not designed for that pressure. The consequences of such an event could be catastrophic."</i>		Needs Improvement	HIGH	Rec - 31	For all CIPS create end to end test procedures for inclusion in the maintenance system	Yes
OBS # 53	Plant Procedures, Records and Other Documentation	Equipment Reliability Management	Critical Instrumented Protective Systems	Critical process set points would be changed under management of change methodology. Many set points are not critical which are done under administrative authority which ensures management approval.		Needs Improvement	MEDIUM	Rec - 32	Document which set points are critical control points (CCP).	
OBS # 54	Plant Procedures, Records and Other Documentation	Equipment Reliability Management	Maintenance Planning	The Maintenance Planning System is being evolved (refer to CWR Rutherford equipment list maintenance.xls). The expected elements of an adequate planning system are recognized and being worked on. In its current stage of evolution it is expected that the level of breakdown maintenance will be higher than when the system is fully evolved. Plants with significant levels of breakdown maintenance are at increased risk of harmful incidents often associated with the impacts of loss of containment of process substances.		Needs Improvement	MEDIUM	Rec - 33	Consider accelerating the evolution of the Maintenance Planning System.	Yes
OBS # 55	Plant and Equipment	Equipment Reliability Management	All	As part of the evolution of the maintenance planning system a number of items have recently been added to this system.		Needs Improvement	HIGH	Rec - 34	Continue improving the maintenance equipment list by prioritising the inclusion of all CIPS, Hazardous area and statutory equipment on site.	
OBS # 56	Plant Procedures, Records and Other Documentation	Equipment Reliability Management	Maintenance Planning	Plant items with the potential to cause significant harm upon failure do not have a formal classification in the Maintenance Planning System. In a fully evolved management system such classification drives their priority for scheduling and triggers a risk assessment process if deferral is sought. There is evidence of a higher criticality classification for some types of equipment that do fall within this definition, such as PSVs and Pressure Vessels because they are subject to an explicit Regulatory Requirement for their Inspection. In the current evolution of the system the criticality of these items is referred to as "Compliance". The identification of PSVs and Pressure Vessels is a very good starting point.		Needs Improvement	MEDIUM	Rec - 35	Formally identify all plant items (mechanical, electrical, instrument, structure), which degrade over time and have the potential to cause significant harm upon failure and create a dedicated criticality category for them to drive the their prioritisation in the maintenance schedule.	

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 57	Plant Procedures, Records and Other Documentation	Management of Change	All	<p>AECOM conducted a preliminary risk ranking to determine which modifications had the potential for higher risk. Modification 4, 8,18 & 17.05 were identified and reviewed in more detail.</p> <p>Site have a formal written Management of Change Procedure supporting the Modification Approval Form or SWIF Template however access to it was restricted by access to the internet and various locations for documentation. A written procedure contributes to achieving consistency of approach, particularly during personnel changes.</p> <p>Evidence was available indicating that elements of the procedure are followed. Current modification procedure defines what is a modification which is inconsistent with onsite discussions regarding the definition of a modification being unknown. Examples of elements of the modification process that do not appear to be followed are updating of P&ID's, training requirements and full use of all check sheets. There were no modifications for set point changes, personnel changes or procedure updates.</p> <p>It is noted that this was a Recommendation (number 56) in the 2008 Hazards Audit to implement a modification procedure. Implementation includes adherence to the procedure.</p>		Needs Improvement	MEDIUM	Rec - 36	Provide one central location for procedures. Include plant MOC procedure in this system.	
OBS # 58	Plant Procedures, Records and Other Documentation	Management of Change	All	As per OBS#57		Needs Improvement	HIGH	Rec - 37	Improve adherence to the existing MOC procedure (e.g. following processes required by the procedure, training on the use of the mod, update of documentation including procedures, training matrices, P&ID, schematics, Hazardous area assessments). Better link between plant mod and project system and vice versa	
OBS # 59	Plant Procedures, Records and Other Documentation	Management of Change	All	As per OBS#57		Needs Improvement	LOW	Rec - 38	Update MOC procedure to reference current legislation.	
OBS # 60	Plant and Equipment	Management of Change	All	Current set of P&ID's do not reflect changes that have been made on the plant. P&ID's are a key document in running, troubleshooting and risk assessing the plant.		Needs Improvement	MEDIUM	Rec - 39	Update all P&IDs to "As Built" status	
OBS # 61	Plant Procedures, Records and Other Documentation	Hazardous Areas	Hazardous Designation	Site has designated the entire plant area as Hazardous for the control of ignition sources. For fixed equipment purposes it follows the formal Hazardous Area Classification.		Adequate				
OBS # 62	Plant Procedures, Records and Other Documentation	Hazardous Areas	Ignition Source Control	Site controls access onto and off the Plant Area via the Control Room Building. A space is provided in the Control Room Building just before exiting onto the Plant Area for stowing mobile telephones or other similar small personal electronic devices.	Yes	Adequate				
OBS # 63	Plant Procedures, Records and Other Documentation	Work in Hazardous Areas	Permit to Work	Hot Work is controlled via issuance of a Hot Work Permit. During the audit raising a Hot Work Permit for use of non-rated cameras was observed.		Adequate				
OBS # 64	Plant Procedures, Records and Other Documentation	Hazardous Areas	Hazardous Classification	The Hazardous Area Zone Classification requires up to date drawings		Needs Improvement	MEDIUM	Rec - 40	The Hazardous area Classification drawings need to be reviewed and updated	
OBS # 65	Plant Procedures, Records and Other Documentation	Hazardous Areas	Verification Dossier	The hazardous area verification dossier is documented using a MS access Database, The Verification Dossier was reviewed for Compliance with AS60079, the verification dossier is a key element in ongoing maintenance and providing documentary proof that the plant is safe to operate.		Needs Improvement	MEDIUM	Rec - 41	The verification dossier system is adequate but needs to be bought up to date to include recent additions (wireless Instruments). Additions to the verification dossier should be updated by a "Competent person" as defined by AS60079	

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 66	Plant Procedures, Records and Other Documentation	Hazardous Areas	Periodic Inspections	To ensure that Hazardous area equipment is maintained in a satisfactory condition, the hazardous area installation should be either regular periodic inspections or continuous supervision by skilled personnel;. The maximum interval for regular periodic inspections is 3yrs		Needs Improvement	HIGH	Rec - 42	The maximum interval for periodic inspections has been exceeded. If the plant is relying on continuous supervision by the I&E Tradesperson then this to be needs to assessed that it adequately meets the requirements of AS60079.17	
OBS # 67	Plant Procedures, Records and Other Documentation	Hazardous Areas	Maintenance	The Maintenance a records were reviewed as to there adequacy, with respect to periodic maintenance and records		Adequate				
OBS # 68	Plant Procedures, Records and Other Documentation	Security	Control Room Entry	Access to the Control Room requires a pass or key. An intercom system is available at the Control Room Building entrance door for all other visitors.		Adequate				
OBS # 69	Plant Procedures, Records and Other Documentation	Security	Plant Entry	General access to the Plant is via the Control Room Building. The Plant Area is fenced off from the balance of site.		Adequate				
OBS # 70	Plant Procedures, Records and Other Documentation	Lock Out Tag Out	All	Group isolation boards available an in prominent location. Isolation locks tags with locks	Yes	Adequate				
OBS # 71	Plant Procedures, Records and Other Documentation	Communication	All	Noticeboards contained Safety information and policies in prominent location in control room	Yes	Adequate				
OBS # 72	Plant Procedures, Records and Other Documentation	SDS	All	Safety Data Sheets in all of the key areas (Office, DG Building, Maintenance, Control Room)	Yes	Adequate				
OBS # 73	Plant Procedures, Records and Other Documentation	Toolbox talks	All	Regular toolbox talks are being held. Toolbox talks also highlight changes to SOP	Yes	Adequate				
4.4 IEA - Hazard Audit Item 3.5.2 Operator Training										
OBS # 74	Training	Operators		Training matrix of operator training was provided. Was advised that operators are long term with 50% of operators with approx. 10yrs service. Advised that Fire fighting, confined space and SCBA training is completed. Training register was provided with a significant number personnel with either no training or training expired.		Needs Improvement	MEDIUM	Rec - 43	Implement a prioritised training plan to close the training gaps in personnel training. Train personnel as per the training plan. (Refer to Rec # 14, 26, 40, 44 & 47 of 2008 audit)	
4.4 IEA - Hazard Audit Item 3.5.3 Emergency Planning										
OBS # 75	Emergency Planning	Emergency Response	Personnel Accounting	Site controls access onto and off the Plant Area via the Control Room Building. Each person entering the Plant Area is allocated a unique identifier, which they must place on the "On Plant" Board as they exit the Control Room Building onto the Plant. This information can be used in an emergency when conducting a roll call to account for all persons who evacuated to the designated Assembly Areas.	Yes	Adequate				
OBS # 76	Emergency Planning	Emergency Response	Wind Socks	As the plant handles hazardous gases a Wind Sock is provided to assess wind direction and determine a safe direction of egress in the event of a hazardous gas release. The Wind Sock is mounted at the top of the Fractionation Tower and is visible from each part of the Plant Area. Wind sock was in good condition	Yes	Adequate				
OBS # 77	Emergency Planning	Emergency Response	Emergency Egress Gates	Emergency Egress Gates are provided at several locations around the Plant perimeter. The Gates are clearly sign-posted and not locked. Access to the operating mechanism from outside the gate is blocked with a barrier plate.	Yes	Adequate				
OBS # 78	Emergency Planning	Emergency Response	Domestic Water to Refinery Isolation	The Domestic Water to the Refinery isolation valve is clearly identified and readily accessible being outside the Plant Perimeter Fence.	Yes	Adequate				
OBS # 79	Emergency Planning	Emergency Response	Safety Shower/Eyewash Combos	Numerous Safety Showers located about the Plant. Visually appeared well kept and clear of obstructions to access. Shower were labelled and also had green lights at showers	Yes	Adequate				
OBS # 80	Emergency Planning	Emergency Response	Safety Shower/Eyewash Combos	Safety shower performance was not tested however all line sizes looked appropriate on preliminary basis		Not Verified	LOW	Rec - 44	Confirm safety showers meet the requirement of AS 4775 of 75.7 l/min	
OBS # 81	Emergency Planning	Emergency Response	Safety Shower/Eyewash Combos	Safety shower performance was not tested however all line sizes looked appropriate on preliminary basis		Needs Improvement	LOW	Rec - 45	Update emergency contact list of surrounding industries on a regular basis	
4.4 IEA - Hazard Audit Item 3.6.1 Incident History										
OBS # 82				Advised that no LTI's have occurred since the inception of the plant		Adequate				

Observation #	Consent Condition	Category	Plant Area	Description	Photo	Result	Risk	Rec #	Recommendation	Highlighted Immediately
OBS # 83				2008 Audit REC 55. Setup a process to review potential consequences from serious incidents not just what actually happened. Setup a process to identify incidents in the industry and determine if applicable to the site (example: Join the Australian Institute of Dangerous Goods consultants or a petrochemical association).		Needs Improvement	LOW	Rec - 46	Recommend interaction with other similar industries. One example would be to subscribe to the US Chemical Safety Board (CSB). https://www.csb.gov/	
	4.4 IEA - Hazard Audit Item 3.6.2 Previous Studies									
				Review of 2008 audit completed and incorporated into other sections						
	Other									
OBS # 84		Dilapidation	Redundant Buildings	There is a large section of site that is unused and has redundant manufacturing building on it. The buildings have deteriorated over time. Some timber frames are looking unstable. Individual sections of sheeting remain on the building and pose a risk of being torn off in high winds. The area is considered to have a low occupancy.	Yes	Needs Improvement	MEDIUM	Rec - 47	Demolish redundant timber structures and remove remaining sections of sheeting	
OBS # 85		Dilapidation	Redundant Equipment	Redundant shipping containers and truck bodies left on site. Poor house keeping practises can be indicative of the culture or expectations on site and also pose as risks as they deteriorate further or contain chemicals		Needs Improvement	LOW	Rec - 48	Dispose of unnecessary shipping containers or contents (e.g. flammable paints)	
OBS # 86		Communication	Roads	Roadways were now sealed since 2008 audit	Yes	Adequate				
OBS # 87	Maintenance	Crane Lifts	All	Approved crane company prepares lift plans and JSERAs for all lifts conducted on site. The location of underground services such as towns water and fire mains are known and crane outriggers are not allowed to be placed above these services		Adequate				

Appendix C

Review of 2008 Hazard Audit Recommendations

RECOMMENDATION	ACTION/PUTCOME PLAN	Evidence	AECOM 2018 Audit Comments	Photo
REC 1. Modify the locks to the site access doors so they cannot be set in the unlocked position and fit self closing mechanism. (consider alarming the door operation back to the control room and/or fit security cameras)	1. Locksmith engaged, locks changed (control room and Loading Bay) hold opens removed to prevent door being left in the held open position. 2. Operator controlled entry installed with camera.	Observed		Y
REC 2. Continue to implement closing of the front gates between 11pm and 7 am or upgrade the fencing to the processing plant.	Fence installed around plant and procedure implemented to keep access gates secure. See photo evidence. Access gates padlocked when not in use and after hours.	Gates advised they are now on a timer. Observed gate closed after hours		
REC 3. Placard dangerous goods storages as per WorkCover requirements and include depot number	Signage purchased from HIE signs, installed by plant operators and maintenance crew. Refer to Rec 7	DG Audit completed in August 2016 Site Layout with DG storages on it. Action plan was put in place	Review of placarding of stores. Some redundant labelling to be removed	Y
REC 4. protect gas cylinder storages against impact for vehicles (provide impact bollards or relocate away from traffic).	Gas cylinders relocated away from internal roads	No cylinders observed on site that can be impacted by vehicles		
REC 5. Update the Dangerous goods inventory and Notification to WorkCover with the additional storages, Remove depot PTK 8.	Site plan changed and updated, included in evidence folder. Dangerous Goods Licence updated with renewal to WorkCover.	Manifest at front gate.		Y
REC 6. Provide a designated properly labelled and banded storage for the Sodium Hydroxide	Sodium Hydroxide DG storage area provided. Dedicated Spill Pallets purchased for the bunding of Sodium Hydroxide.	Photo evidence		Y
REC 7. Store spent catalyst in a designated area with appropriate placarding and depot labels. Include on DG manifest and WorkCover Notification.	Designated spent catalyst DG storage area, depot 3. All depots identified. All placards in place. Site plan updated.	Drums have Global Harmonised labelling on them. Containers labelled		Y
REC 8. Store oily water IBC's in an impervious bund and label the contents of IBCs	Oily water IBC's stored in banded area. Oily water IBC's labelled. Removed from previous area.	Both IBC observed on bunds.		Y
REC 9. Organise the provision of Australian Compliant MSDS for chemicals on site	Chemwatch in use on site for provision of MSDS's. All non-compliant manufacturers contacted by email, requesting change to MSDS to comply with Australian standards. MSDS folders in control room and OHS Coordinators Office.	Directory on network observed Photos Provided		Y
REC 10. Provide a suitable base for the site drainage system to prevent contamination of the ground and storm water. (consider concrete instead of tar macadam as petroleum products are not well contained by tar macadam)	Work commenced. 40-50% of total roadway complete. Remaining works scheduled and will be conducted as funds allow.	Area now sealed		Y
REC 11. Improve the Hazards and Aspects register to detail the key hazards and aspects on site and the explicit controls in place to manage these. Set-up an audit schedule to audit the controls periodically to ensure ongoing diligence.	Updated by Business Unit Manager, included in evidence folder.	Register sent through		
REC 12. Implement a routine maintenance regime for the Burner Management Systems. (To include checks that all shutoff valves operate and do not pass (leak)).	Burner Management System maintenance programme implemented. 6 monthly schedule.	In the maintenance spreadsheet Example check sheet provided		
REC 13. Review the SCBA inspection process to ensure checks are completed as per schedule	Ensure SCBA checks are completed as scheduled. Zokal check all SCBA on a 6 Monthly basis. Tanks refilled as required. Examples of inspection records included in evidence folder.	Inspection report provided		
REC 14. It is recommended that routine use of the SCBA be programmed so that operators are comfortable in its use. (Conduct a site audit every two weeks using SCBA for each operator)	Each shift team to hold regular drills using SCBA & long line BA. Schedule set up for operators to attend daily checks while wearing SCBA on a 3 monthly basis. BA to be donned, doffed and cylinder checked within a set time.	An excel dump of vault training register was provided (Employee Training Matrix.xls) Advised that: - Fire fighting training completed annually where SCBA use is completed - There is a matured Work force with low turn over - Confined space entries are done regularly. Inspection report of equipment of provided	Advised that confined space entry was completed regularly yet confined space training for all employees had expired. Similarly SCBA training for all employees had expired	

RECOMMENDATION	ACTION/PUTCOME PLAN	Evidence	AECOM 2018 Audit Comments	Photo
REC 15. Ensure all operators sign off on procedure changes (otherwise management can not be confident they will be implemented) Consider providing a section for comments to allow operators to indicate further work is required.	1. Sign-off sheet written 2. All operators to sight, read, and sign compliance sheet. New SOP's, and SOP's for review placed in control room (blue folder) with signoff sheets for operator comment and review.	Inspection report of equipment of provided		
REC 16 . Confirm inspection activities for fire hydrants are occurring and ensure records are kept of these inspections	1. Fire hydrant inspection included on monthly site inspection. 2. Audits of Daily operator checklists include fire cabinets and hydrants. Checked weekly by operators.	Hydrant tag inspected and up to date Monthly fire report provided		Y
REC 17. Setup a mechanism to ensure the fire fighting foam is within its use by date, setup routine checks of operation of the water cannons	Shelf life is extensive, testing required every 10 years. Wormald to do testing when required. Plant operators perform operation checks on water cannons weekly.	Fire fighting foam sent to Singapore for testing. Test results provided		
REC 18. Reduce the overcrowding in the switch room by relocating documentation and spare parts	Document storage moved from MCC to shipping containers adjacent to workshop	Photo's of switch rooms provided. Switch rooms inspected by electrical engineer		
REC 19. Relocate the power leads in the workshop off the floor (preferably permanently wire into place or suspend on insulated hooks)	Insulated hooks purchased to suspend electrical cords off the floor. Included on monthly Site Inspection.	Site inspections completed and photos provided		
REC 20. Bund the Boiler Chemicals	Containers purchased and installed as bunds for the boiler and cooling tower chemicals.	Photo evidence		Y
REC 21. Bund the fire pumps diesel tanks	This is a minor store according to AS 1940-2004 and thus bunding is not required. Risk of environmental harm is mitigated by providing a spill kit in case of loss of containment and visual integrity checking during routine testing of fire pumps.	Accepted		
REC 22. Label manually operated valves	All manual valves in the Tank Farms are clearly labelled. Manual valves in process areas are associated with major equipment, which are all clearly labelled. SOP's clearly indicate which valves to operate. Operators are trained in the operation of valves.	Photo evidence		Y
REC 23. Develop a system to identify individual's gaps in competencies/training and implement a plan to rectify these. (implementation of the planned performance system should satisfy the requirements)	PSP's developed for all administration personnel, which are reviewed 6 monthly by the BUM (Business Unit Manager)	Old version of training plan provided. New version is in vault		
REC 24. Define high level risk assessment processes that will allow the site to assess all aspects adequately. (E.G. WRAC, HAZOP, Change Management).	Management of Change SOP written and approved. MOC register set up on G drive. MOC form modified and circulated. MOC SOP reviewed and approved, MOC form modified and approved for use. Hazop folder in use	National Integration Management System (NIMS) replaced/superseded the MOC SOP.	Improve adherence to the full MOC procedure	
REC 25. Setup a mechanism to provide feedback on the outcomes from incidents, improvement alerts and the progress/scheduling of work orders to back shift operators. Include the ability to go back to previous communications for persons who have been on leave.	1. Improvement Alerts/INCR's are recorded on a central register located on "G" drive. Register is updated regularly and new alerts added. SOP written and distributed to all employees via email. Site management meet regularly to review open Alerts/INCR's. Meeting minutes are displayed on the OHS&E Noticeboard in the refinery control room and updated on the "G" drive. Closed out when originator notified. 2. Updates of maintenance work schedule maintained on "G" drive, Refer REC 34.	Example tool box talks provided Meeting once a fortnight is held with an operator present and operator reports back to operators on the issues Corrective actions go in toolbox findings		
REC 26. Implement a process to authorise JSEAs and keep records of person being trained	Authorisation process Included in CTW SOP. Training complete. Copies of training records maintained in training records file.	Photos of the fire fighting training were provided Training matrix dump from "Vault". Vault has a training plan	Recommend training SWMS receivers in WHS regulations Many training topics had expired or operators were not trained. Recommend updating the plan and complete training (e.g. Emergency Control, Breathing Apparatus, Height Safety, Lock Out Tag Out, Confined Space and First Aid training)	
REC 27. Develop an index of JSEAs and SWPs and determine if all operations are covered	JSEA register on G drive. SOP register on G drive. These can be accessed by all operators. Operators sign-off sheet attached to SOP's for review and comment.	SOP's and WI are in the SOP register		

RECOMMENDATION	ACTION/PUTCOME PLAN	Evidence	AECOM 2018 Audit Comments	Photo
REC28. Implement a register of persons authorised to issue the various types of permits. The site manager should approve the authorities.	1. Written and included in CTW SOP. Authorisation process Included in CTW SOP (refer Rec 26). 2. Site Manager has approved authorities.	Operators are the only ones that issue permits. Permit to work is part of the training matrix. Permit Issue training up to date		
REC 29. Conduct a risk assessment for the DGs and Hazardous Substances on site as per the NSW OHS Regulations. Document the outcomes in SWPs and train personnel	1. Risk Assessments for DG and Hazardous Substances complete. Adopted TIG SOP for DG's & Haz Substances. 2. Training complete.	DG Audit completed in August 2016 No specific training course for Dangerous Goods or Hazardous Substances. Other training may cover this such as Asbestos Awareness, Spill Response Awareness, Workplace Chemical Fundamentals and Chemical Management Fundamentals. Training for these have good compliance		
REC 30. Provide general chemical handling training, including chemical incompatibility, for site personnel	Training completed for all refinery employees. Attendance records filed in personal records. Attendance register in evidence folder.	Workplace Chemical Fundamentals and Chemical Management Fundamentals. Training for these have good compliance		
REC 31. Define the engineering/maintenance system requirements in the BUMP manual	BUMP (Business Unit Management Plan) Updated to include engineering/maintenance system requirements. Copy of BUMP included in evidence folder.	Bump provided		
REC 32. Define an implementation timeframe for maintenance plan. This is to include procuring the MMS and populating this with maintenance strategies for each item of plant.	Refer to Master Maintenance spreadsheet.	Maintenance spreadsheet inspected to show inspection frequencies	Continue to implement and refine Maintenance Management System.	
REC 33. Setup a schedule with the pressure vessel inspectors to meet the pressure vessel audit report recommendations to maintain a safe plant	Pressure vessel inspection schedule is included in the Master Maintenance spreadsheet.	Maintenance spreadsheet inspected to show inspection frequencies		
REC 34. Setup a formal process for liaising with production on maintenance task scheduling. Provide feedback to operators. Consider adding a priority field to the maintenance request form to gauge the urgency from operations.	Sheet setup on G: drive Minutes of weekly maintenance meetings, supported by toolbox talks. Adopted TIG Contractor Management process; TIG COR M 0028. Contractor Management also explicitly covered in the BUMP.	KPI spreadsheet includes maintenance task Screen shot provided of Contractor Management system		
REC 35. Setup a formal process for contractor management.	Critical components to be tested for operability as per CHAZOP (refer REC 59). Expanded the Master Maintenance spreadsheet to include instrumentation.	Chazop provided	Continue to implement and refine Maintenance Management System.	
REC 37. Implement a CHANGE documentation and authority process for the process control system and instrumentation.	Refer to REC 24	MOC process being used for control changes		
REC 38. Provide formal training to the electrical/instrument technician in how to operationally manage hazardous zones.	Michael Dyer attended formal training course. Certificate included in evidence folder.	Training for Hazardous works zones complete		
REC 39. Review the emergency manual to match identified hazards to scenario management and titles match site positions.	SEMP revised by Linda Butler and Michael Fletcher, reviewed by Ray Carson.	SEMP provided		
REC 40. Train relevant personnel in the emergency management plan and keep records.	Training completed for all Refinery employees. Attendance records filed in personal records	4 employees shown to have completed the Emergency Control Warden training	Training out of date. Implement a prioritised training plan to close the training gaps in personnel training.	
REC 41. Review the site emergency map and contents of the emergency management box to comply with the WorkCover Dangerous Goods Code of Practise and issue the emergency manifest.	Emergency Management Box updated. Manifest emailed to M Kopp (Captain Maitland Fire Station) for review.	Emergency management box checked under IEA		
REC 42. Overtly label all major services isolation points.	TPR has ordered, received and installed signage for major service isolation points- gas, elect, water	Photo of isolation points provided		
REC 43 Add the small industries to the south of the plant to the Emergency contacts list.	Emergency contacts list updated. Lists located at Refinery Managers Office, OHS Coordinators Office, Control Room, and Reception desk.		Update emergency contact list of surrounding industries on a regular basis	
REC 44. Review the classification of incidents and link these to WorkCover reporting requirements.	Employees provided with INCR/CAR training including WorkCover reporting requirements. INCR includes prompt in section 2, referring to notification of Government Authorities/WorkCover, Insurer.	training record provided. 3 people trained on Incident Reporting & Investigations Vault.	3 people trained in this area would be the bare minimum requirement. Would suggest shift team leaders be trained in these requirements also.	

RECOMMENDATION	ACTION/PUTCOME PLAN	Evidence	AECOM 2018 Audit Comments	Photo
REC 45. Improve the processes for investigating incidents by requiring formal documented investigations for incidents rated M or higher. Document corrective actions/further investigations and track implementation (implementation of the online system and ICAM may resolve this).	Copy of INCR register placed in evidence folder (refer to REC 25). Employees can view register on "G" drive. ICAM for incidents rated High or Extreme.	Vault is the company system to log incidents and near misses. Screen shot of system provided. Includes risk ranking, investigations, root causes and corrective actions.		
REC 46. Improve the processes for recording the status of corrective actions and prioritise corrective actions. Update outstanding records as a matter of priority (implementation of the proposed online system may resolve this).	Online system utilised.	Production run sheet provided "10 October 2018 V5.xlsm" Maintenance corrective actions and improvements are tracked in this sheet		
REC 47. Develop a training skills matrix for positions on site summarising training/competencies required and those achieved (allows gaps to be readily identified).	Training records are kept in OHS Office. Training matrix updated and maintained by OHS&E Coordinator.	Training records provided.	Training out of date. A prioritised training plan to be updated.	
REC 48. Setup a process to keep training records together and complete.	Training records are located in OHS Office.	Training records from Vault provided		
REC 49. Identify and implement recommendation from the February 2008 internal SHE audit.	Action plan prepared for TIG Compliance Audit from Jan 08, Refer to TIG Compliance Evidence Folder.	Photo of folder provided. TIG Compliance Evidence folder photo.jpg		
REC 50. Continue with implementation of the zero harm observation programme from July 2008.	Training for Zero Harm Observations completed for all TPR Employees. Training matrix updated. Targets have been set for site and each work team. This is reflected in PSP objectives.	Hydrocarbons Leading Indicator Dashboard 25 Oct 2018.pdf provided		
REC 51. Reactivate the Improvement Alert register and setup a process to close out open actions (suggest using the Safety Committee to undertake this role).	Improvement Alert register reactivated and in use (refer REC 25). Can be viewed by employees on the "G" drive. Copy of Improvement Alert register included in evidence folder.	The vault system covers improvements arising from incidents and near misses. The production run sheet captures maintenance issues on the plant. The modification system is used to capture modification/improvements on the plant		
REC 52. Continue with the programme to develop a baseline hygiene programme in the third quarter 2008.	Q3 2008 audit completed. Report placed in evidence folder. No further testing required.	Occupational Hygiene survey 2008.pdf		
REC 53. Document the location of documents/computer files used to manage the BUMP (suggest documenting these in the BUMP).	BUMP document register created. Copy placed into evidence folder.		Documentation system to be improved	
REC 54. Conduct an analysis of the incidents (since stable operation has been reached) on site to determine if there are any trends	Analysis conducted and a copy placed into evidence folder. Added to Inspection and Test Register for annual analysis.	File was located but has since corrupted		
REC 55. Setup a process to review potential consequences from serious incidents not just what actually happened. Setup a process to identify incidents in the industry and determine if applicable to the site (example: Join the Australian Institute of Dangerous Goods consultants or a petrochemical association).	Ray & Linda placed on SAI Global Distribution List. Linda to receive WorkCover news and safety alerts. Linda to attend the Hunter Valley Safety Group meeting held in Maitland every second month. Antony Steynberg joined the Mechanical Engineers Association. Safety Alerts received from Kevin Middlebrook. ICAM when incidents rated High or Extreme.	Example evidence of Cleanaway system to communicate company wide: "181015 Cardinia Muni Eye Injury"	Recommend interaction with other similar industries. One example would be to subscribe to the US Chemical Safety Board (CSB). https://www.csb.gov/ .	
REC 56. Implement a modification control process that all changes to plant, process, procedures, control system parameters and positions follow. The process to include initial assessment, risk assessment requirements, actions to be implemented and closeout check, with the appropriate authorisations throughout the process.	Refer action plan for REC 26 and incorporate items listed here. SOP written, Approved and in circulation.	Evidence provided		

RECOMMENDATION		ACTION/PUTCOME PLAN		Evidence	AECOM 2018 Audit Comments	Photo
REC 57. Prepare a dossier of changes since the original HAZOP studies and update drawings and documentation to match the current arrangement.		All changes listed, documented with most recent drawings. Hazop Folder compiled.		List of MOCs provided with summary	Recommend update to MOC procedure in particular reference to current legislation. Current modification procedure defines what is a modification which is inconsistent with onsite discussions regarding the definition of a modification being unknown. Use of modification process is used only in a limited form (e.g. use of Modification Sheet, training records, updating of P&ID's, no modifications for set point changes, personnel changes, update to procedures).	
REC 58. Collate all recommendations from studies conducted on the process plant. Document the action to be taken and confirm implementation of the recommendation. Items that are changed or not implemented from the original should have reasons justified (document through the modification control process).		Implemented and sign-off in HAZOP action plan (refer to REC 24).		Hazop action plan provided		
REC 59. Conduct a CHAZOP of the control system.		CHAZOP study conducted. Copy of study report included in evidence folder.		Chazop provided		

Appendix E

IEA Declaration Form

Appendix E – Independent Audit Declaration Form Template

Independent Audit Declaration Form

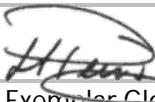
Project Name	Cleanaway Refinery Rutherford
Consent Number	Project Approval 05_0037
Description of Project	Operation of a refinery to process pre-treated waste oil into higher grade base oil
Project Address	41 Kyle Street
Proponent	Cleanaway Refiners Pty Ltd
Title of Audit	2018 Independent Environmental Audit: Cleanaway Refinery Rutherford (Project Approval 05-0037)
Date	11 November 2018

I declare that I have undertaken the Independent Audit and prepared the contents of the attached Independent Audit Report and to the best of my knowledge:

- the audit has been undertaken in accordance with relevant condition(s) of consent and the *Independent Audit Post Approval Requirements (Department 2018)*;
- the findings of the audit are reported truthfully, accurately and completely;
- I have exercised due diligence and professional judgement in conducting the audit;
- I have acted professionally, objectively and in an unbiased manner;
- I am not related to any proponent, owner or operator of the project neither as an employer, business partner, employee, or by sharing a common employer, having a contractual arrangement outside the audit, or by relationship as spouse, partner, sibling, parent, or child;
- I do not have any pecuniary interest in the audited project, including where there is a reasonable likelihood or expectation of financial gain or loss to me or spouse, partner, sibling, parent, or child;
- neither I nor my employer have provided consultancy services for the audited project that were subject to this audit except as otherwise declared to the Department prior to the audit; and
- I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from payment for auditing services) from any proponent, owner or operator of the project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.

Notes:

- a) Under section 10.6 of the *Environmental Planning and Assessment Act 1979* a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000; and
- b) The *Crimes Act 1900* contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both)

Name of Auditor	Helen Onus
Signature	
Qualification	Exemplar Global Certified Lead Auditor Masters of Environmental Management Bachelor of Science: Environmental Biology
Company	AECOM
Company Address	Level 21, 420 George Street, Sydney, NSW 2000