



**Office of
Environment
& Heritage**

**FINAL
COMPLIANCE AUDIT REPORT
VOPAK TERMINALS SYDNEY PTY. LIMITED
49 FRIENDSHIP ROAD
PORT BOTANY NSW 2036**

NOVEMBER 2011

This report has been prepared to present the findings of the audit carried out and no responsibility is accepted for its use in any other context, or for any other purpose.

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1.0 INTRODUCTION

An Office of the Environment and Heritage (OEH), Department of Premier and Cabinet Compliance Audit has been undertaken at the Vopak Terminals Sydney Pty Limited storage facility at 49 Friendship Road (Site A), Port Botany. The site was audited as part of a state-wide program of audits focusing on the management of major environmental risks associated with the activities undertaken at the site. The audit also focussed on emergency management procedures employed by the licensee in the event of an incident occurring at the site that is or is likely to impact on the environment or on the local community. The audit inspection was undertaken on 29 September 2011.

The procedures and processes for conducting OEH Compliance Audits are detailed in the *Compliance Audit Handbook*, which can be accessed on the OEH website at <http://www.environment.nsw.gov.au/resources/licensing/cahandbook0613.pdf>.

1.1 Audit Objective

The objectives of the audit were

- to determine whether the enterprise is complying with environment protection licence requirements in relation to the audit scope and criteria; and
- to outline a time frame for follow-up action to address any non-compliances identified during the audit.

1.2 Scope of the Audit

The scope of the audit is limited to the examination of the activities undertaken at Vopak Terminals Sydney Pty Limited, in relation to the management of major environmental risks.

The temporal scope adopted for assessment of compliance is:

- The day of the audit inspection for assessing compliance with Operating Conditions, relating to the management of major environmental risks and emergency management planning; and
- 12 months prior to the end of the audit inspection for assessing compliance with any Monitoring, Recording and Special Conditions and Pollution Studies and Reduction Programs relating to the audit scope.

1.3 Audit criteria, evidence and findings

Audit criteria (the requirements against which the auditor compares collected audit evidence) are the Conditions attached to Environment Protection Licence Number 6581 issued under the POEO Act to Vopak Terminals Sydney Pty Limited, in relation to the management of major environmental risks.

Audit criteria may include any document referred to by the licence, or relevant to a particular condition of the licence.

Audit evidence was collected during discussions with site personnel, examination of documentation provided by the licensee and/or contained on OEH files, together with observations made during the audit inspection.

Findings of non-compliance with licence conditions are summarised in table 2.1. An Action Program provides a time frame for follow-up action necessary to comply with the licence condition concerned.

1.4 Premises and Process Description

Vopak Terminals Sydney Pty. Limited operates a Chemical Storage facility at 49 Friendship Road, Port Botany. The facility is located within the Randwick Local Government Area and is surrounded by industrial and port related activities. There is freight handling facilities to the north, fuel storage facilities to the west and east, and the waters of Botany Bay to the south. The nearest residential area is approximately 1.7 kilometres to the east northeast.

The facility is approximately 4 hectares in area and provides import/export/distribution services for a range of chemicals.

Chemicals are transferred via pipeline to or from the Bulk Liquids Berth (BLB).

Road tankers are loaded on site for off site distribution.

Containers such as Intermediate Bulk Containers (IBC) are filled and loaded onto trucks for off site distribution.

Depending on the nature of the chemicals, they can be stored in various tanks of different capacities, in localities suited to product type and flash point and whether heating is necessary for its handling.

The tank farm storage capacity is approximately 34 850 kilolitres.

1.5 Statutory Instruments Issued to the Enterprise

The EPA has issued the following statutory instruments to the enterprise:

Licence number 6581 issued under the Protection of the Environment Operations Act 1997.

The scheduled activity undertaken at the premises is *Chemical Storage activities* with a fee scale category of 5000 – 100 000 kilolitres stored.

The anniversary date for the licence is 15 January.

A copy of Licence 6581 can be accessed through the OEH online public register at: <http://www.environment.nsw.gov.au/prpoeoapp/searchregister.aspx>

1.6 Risk Assessment of Non-compliances

The significance of any non-compliances identified during the audit process are categorised. Following risk assessment of non-compliances, an escalating response relative to the seriousness of the non-compliance is determined to ensure the non-compliance is addressed by the enterprise.

The risk assessment of non-compliances involves assessment of the non-compliance against two criteria; the likelihood of environmental harm occurring and the level of environmental impact as a result of the non-compliance. After these assessments have been made, information is transferred into the risk analysis matrix below.

		Likelihood of Environmental Harm Occurring		
		Certain	Likely	Less Likely
Level of Environmental Impact	High	Code Red	Code Red	Code Orange
	Moderate	Code Red	Code Orange	Code Yellow
	Low	Code Orange	Code Yellow	Code Yellow

The assessment of the likelihood of environmental harm occurring and the level of environmental impact allows for the risk assessment of the non-compliance via a colour coding system. A red risk assessment for non-compliance denotes that the non-compliance is of considerable environmental significance and therefore must be dealt with as a matter of priority. An orange risk assessment for non-compliance is still a significant risk of harm to the environment however can be given a lower priority than a red risk assessment. A yellow risk assessment for non-compliance indicates that the non-compliance could receive a lower priority but must be addressed.

There are also a number of licence conditions that do not have a direct environmental significance, but are still important to the integrity of the regulatory system. These conditions relate to administrative, monitoring and reporting requirements. Non-compliance of these conditions is given a blue colour code.

The colour code is used as the basis for deciding on the priority of remedial action required by the licensee and the timeframe within which the non-compliance needs to be addressed. This information is presented in the action program alongside the target/action date for the non-compliance to be addressed.

While the risk assessment of non-compliances is used to prioritise actions to be taken, the OEHL considers all non-compliances are important and licensees must ensure that all non-compliances are addressed as soon as possible.

2.0 ASSESSMENT OF COMPLIANCE

2.1 Compliance with Audit Criteria

Compliance was assessed against the licensing requirements of the POEO Act, and the requirements of Environment Protection Licence Number 6581 relating to the audit scope and criteria.

Assessment of compliance was undertaken by a detailed site inspection and review of all records and documentation relating to the audit scope and criteria as required by the licence issued to the licensee.

The findings of the audit indicate that some of the conditions of the environment protection licence, relating to the audit scope were not being complied with.

Details of assessment are presented in Table 2.1.

Table 2.1 Assessment of Compliance with Environment Protection Licence No. 6581

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
O	Operating Conditions <i>The audit assessment is based upon evidence relating to the period limited to on the day of the audit inspection.</i>		
O1.1 Licensed activities must be carried out in a competent manner	Managing major environmental risks associated with water pollution		
	Yes	<p>Identification of Major Environmental Risks</p> <p>The licensee has identified major environmental risks associated with the pollution of waters. This includes:</p> <ul style="list-style-type: none"> • Leaks and spills on the premises associated with; <ul style="list-style-type: none"> ○ the operation of the tank farm for storing chemicals, and ○ the handling of chemicals potentially leading to oil contamination of receiving water. ○ Transfer of chemicals in pipelines from the Bulk Liquid Berth. <p>The auditors did not identify any other major environmental risks during the site inspection that had not already been identified by the licensee.</p>	
		<p>Use of controls to minimise the Major Environmental Risks Identified</p> <p>The licensee has controls in place to manage the major environmental risks identified such as:</p> <ul style="list-style-type: none"> • Overfill prevention and subsequent spillages during the filling of tanks is achieved through regular dipping • Secondary containment is installed at the truck fill bay, all transfer points and the tank farm and spills are manually pumped to a waste tank 	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<ul style="list-style-type: none"> • The final stormwater pit is fitted with three valves which remain closed and padlocked under normal operating conditions - Access to keys can only occur after management sign-off • Procedures at the Bulk Liquid Berth (BLB) for each ship discharge are subject to an agreement between Sydney Ports Corporation and the licensee titled; "Shipshore Safety Checklist and Operational Agreement". <ul style="list-style-type: none"> ○ The BLB is fitted with secondary containment to capture spills ○ Ship supplies a manifold superintendent to oversight the berth connections • During ships discharge the licensee provides two personnel on the berth and a person stationed at the premises pipe manifold and communicate via a 2-way radio • Pipes are pigged clean and filled with nitrogen after each transfer to prevent leaks • Cathodic protection to minimise corrosion damage and to prevent loss of containment • Training of staff in the use and management of controls. Staff can only work where competency has been awarded 	
		<p>Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks</p> <p>The licensee monitors the effectiveness of the controls used to manage the major environmental risks identified at the site. Monitoring undertaken by the licensee includes the use of:</p> <ul style="list-style-type: none"> • Routine inspections/maintenance/calibration of monitoring and control equipment • Pipeline flow rate/pressure monitored to detect loss of containment during transfers 	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<ul style="list-style-type: none"> • Pipelines and hoses pressure tested to ensure integrity against leaks and failures • Inventory and groundwater monitoring support leak detection • Drills and simulations to help ensure that site staff responds as required to emergency situations 	
		Managing major environmental risks associated with air pollution	
	Yes	<p>Identification of Major Environmental Risks</p> <p>The licensee has identified the major environmental risks associated with the pollution of air at the premises. This includes pollution of air associated with fire from the management of the storage and handling of flammable products;</p> <ul style="list-style-type: none"> o Managing sources of ignition o Managing leaks and loss of containment 	
		<p>Use of controls to minimise the Major Environmental Risks Identified</p> <p>The licensee uses controls to manage the major environmental risks such as:</p> <ul style="list-style-type: none"> • Written procedures ensure: <ul style="list-style-type: none"> o the correct separation of incompatible chemicals in storage o use of earth straps - prohibition of potential ignition sources onsite o all maintenance work on the premises is subject to a procedure requiring gas testing to reduce the potential for fire/explosion • All tanks have fixed rooves - a nitrogen blanket is provided in the air space to reduce vapour production and potential for fire • Tanks are fitted with pressure relief valves to reduce the risk of tank rupture • Vapours generated during chemical storage, ship unloading or road tanker filling are either directed to the Vapour Emissions Control System (VECS) or returned to 	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<p>the ship</p> <ul style="list-style-type: none"> Deluge spray systems are installed over the truck loading gantry and drum filling gantry Cathodic protection is provided to pipelines to minimise corrosion damage Un-interruptible power supply supports critical VECS systems thereby reducing the potential for air pollution Training of staff in the use and management of controls and their role in emergency response 	
		<p>Monitoring the effectiveness of the controls used by the licensee to manage the Major Environmental Risks</p> <p>The licensee monitors the effectiveness of the controls used to manage the major environmental risks at the site. Monitoring undertaken by the licensee includes the use of</p> <ul style="list-style-type: none"> Maintenance procedures including tank integrity testing, calibration of controls and alarm systems including road tanker earth trip testing (tank condition inspections carried out every 10 years) Routine inspections of control and monitoring equipment Operation of the VECS is monitored by an automated system (SCADA). After hours alarms notify company personnel Tanker loading is subject to regular audits to ensure safe procedures are followed Any activation of fire detectors automatically alerts NSW Fire Services 	
		Managing Major Environmental Pollution Incidents	
	Yes	<p>Procedures, processes and equipment for managing major environmental pollution incidents</p> <p>The licensee has procedures, processes and equipment in place to manage major</p>	

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		environmental incidents. The procedures include; <ul style="list-style-type: none"> • Emergency response procedures for major risks have been prepared • ESD is a key response and employees are empowered to activate an ESD • Evacuation of personnel and notification to Senior Licensee management • Notification to relevant agencies such as NSW Fire Services, Health, Workcover NSW and OEH • Availability of emergency response equipment 	
O3.1	Yes	Emergency Response Plan <i>Documentation systems and procedures within the Emergency Response Plan to deal with all types of incidents and keeping the Plan onsite</i>	
	No Code Red	Maintaining the Emergency Response Plan Appendix B.2 of the Emergency Procedures Plan contains an Emergency Telephone Log. Under the heading 'Other Government Authorities' the licensee has correctly referred to the number 131555 which is the EPA Pollution Line. However it is not clear that the number is the EPA's Pollution Line number as the departments name has been confused with another organisation. In addition, the number 9325-5725 is not correct. The OEH is concerned that the Plan is not updated to reflect current contact details.	The licensee must ensure that the Emergency Response Plan is updated immediately to remove any confusion with the OEH contact details.
M	MONITORING CONDITIONS <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.</i>		
M4.1, M4.2 & M4.4	Recording of pollution complaints These conditions were not applicable at the time of the audit as there is no evidence to indicate that any pollution complaints were received during the audit scope that required recording. However it is noted that the licensee has mechanisms in place to record all the required details if any complaints are received that relate to pollution from the premises.		
M4.3	It is beyond the scope of the audit to determine whether the licensee retains the records for at least 4 years.		

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		The licensee has records of complaints made in the past and the OEH has no reason to believe that those records would not be kept for the required 4 years.	
M5.1	Yes	Operating a telephone line for receiving complaints The licensee operates, during its operating hours a telephone line for the purpose of receiving any complaints from members of the public.	
M5.2	No Code Blue	Advertising the telephone complaints line number to the public The licensee does operate during its operating hours a telephone line however it was noted on the day of the audit the site contact number was located on the company's website, however it did not state that the number was for the purpose of making a complaint. OEH acknowledges that the licensee is a member of the Port Botany Community Action Group which is convened quarterly by the Sydney Ports Corporation and which is attended by community representatives. The OEH is concerned that a contact number is not displayed for the purpose of receiving any complaints from members of the public.	The licensee must inform members of the community that the advertised telephone line is a complaints line that can be used by members of the public for the purpose of making complaints.
M5.3		This is a deeming clause that determines the applicability of Conditions M5.1-M5.2 and no assessment of compliance is required. It is noted that M5.1 and M5.2 do apply as the licence was been issued for more than 3 months.	
R	REPORTING CONDITIONS <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.</i>		
R2.1 & R2.2	Notification of environmental harm These requirements did not apply as no incidents causing or threatening material harm to the environment occurred within the scope of the audit.		

* See explanation of risk assessment of non-compliances codes on p3.

Statutory Instrument: Environment Protection Licence No. 6581			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
U	POLLUTION REDUCTION PROGRAMS <i>The audit assessment is based upon evidence relating to the period limited to 12 months prior to the end of the audit inspection.</i>		
U1	Yes	Air Quality Propylene Oxide - Part 1 <i>Submission of a report on practical options for reducing emissions on or before 31 March 2011.</i> The report was received by the Manager (Sydney Industry) by the due date. (See regional files) Subsequent parts of the PRP are due for completion by 30 August 2011).	

* See explanation of risk assessment of non-compliances codes on p3.

3.0 FURTHER OBSERVATIONS

Further observations are recorded where the audit identified issues of environmental concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where environmental performance may be improved.

The audit team did not identify any further observations during the audit inspection.

4.0 ACTION PROGRAM

The following action program must be undertaken in relation to Vopak Terminals Sydney Pty Limited.

Table 4.1 Action Program – Environment Protection Licence No. 6581

Condition No.	Action Details	Non-Compliance Code (where applicable)	Target/Action Date
O3.1	<p><i>Maintaining the Emergency Response Plan</i></p> <p>The licensee must ensure that the Emergency Response Plan is updated immediately to remove any confusion with the OEH contact details.</p>	Code Red	18 November 2011
M5.2	<p><i>Advertising the telephone complaints line to the public</i></p> <p>The licensee must inform members of the community that the advertised telephone line is a complaints line that can be used by members of public for the purpose of making complaints.</p>	Code Blue	5 December 2011

OEH considers that the licensee should take the necessary actions to ensure that environmental performance is improved in relation to any matters identified as a Further Observation in Section 3.0 of this Report.

APPENDIX A

LICENSEES RESPONSE TO DRAFT REPORT

Vopak Terminals Australia
Gate B33
49 Friendship Rd Port Botany NSW
PO Box 191 Matraville NSW 2036
Australia

Telephone 61-2 9666 4455
Facsimile 61-2 9694 1182

www.vopak.com



7th November 2011

Office of Environment and Heritage
Christopher Kelly
A/Manager Compliance and Assurance Section
59-61 Goulbourn Street
Sydney NSW 2000

Dear Sir,

Subject: Response to Draft Compliance Audit Report – Site A 49 Friendship Road, Port Botany, Sydney NSW 2036. (Licence Number 6581)

This letter is a response to the Draft Compliance audit report following the audit that was conducted on 29th September 2011 at the Site A premises.

The response is in regards to the two action items identified:

- *Condition Number 03.1 Maintaining the emergency response plan.*
 - The Emergency Response plan is currently under a complete review where all details including the contact number for OEH are being updated. This review will be completed by the assigned date 18 November 2011.
- *Condition Number M5.2 Advertising the telephone complaints line to the public*
 - Signage has been installed at the front gate of the site informing the public of the telephone complaints line number (see attached photo)
 - A change is also being made to the Vopak Australia web page to indicate this number as an environmental telephone complaints line.

Regards,

A handwritten signature in blue ink, appearing to read 'Nathan Barnes', is written over a horizontal line.

Nathan Barnes
National SHECQ & Sustainability Manager – Vopak Terminals Australia
Phone: (02) 8336 1905
Fax: (02) 9694 1182

Emailed to Dennis Pascall Regional Operations Officer (OEH Auditor) 07/11/11

A Royal Vopak Company

Vopak Terminals Sydney Pty Limited
ABN 67 004 754 750



APPENDIX B

**LETTER COVERING LICENSEES RESPONSE TO DRAFT COMPLIANCE AUDIT
REPORT**



Office of
Environment
& Heritage

Your reference:
Our reference: FIL.11/9722
Contact: Dennis Pascall 02 9995 5573

Mr Nathan Barnes
National SHEQ & Sustainability Manager
VOPAK TERMINALS SYDNEY PTY LIMITED
PO BOX 191,
MATRAVILLE, NSW, 2036

Dear Mr Barnes

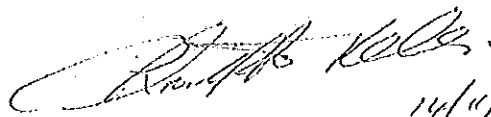
**Re: Final Compliance Audit Report – High Risk Facilities Audit
Vopak Terminals Sydney Pty Limited (Licence Number 6581)**

The Office of Environment and Heritage (OEH) is pleased to present you with a copy of the Final Compliance Audit Report for the Vopak Terminals Sydney Pty Limited premises located at Port Botany. The compliance audit was undertaken as part of the OEH's program of compliance audits across the state, focussing on industries that pose a high risk of environmental harm.

The comments provided by you in your letter dated 7 November 2011 have been considered when finalising the report. Your comments have also been attached as an Appendix to the final report together with a copy of this letter. A copy of this report will be available in the OEH Library for public review.

I would like to take this opportunity to thank you and your staff for the co-operation during the audit. If you require further information or clarification on any matters regarding this audit, please do not hesitate to contact Dennis Pascall on 02 9995 5573.

Yours sincerely



14/11/2011

CHRISTOPHER KELLY
A/Manager Compliance and Assurance Section
Environment Protection and Regulation

Enclosure: Draft Audit Report Vopak Terminals Sydney Pty Limited