



**Office of
Environment
& Heritage**

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

NOVEMBER 2011

The Office of Environment and Heritage exercises certain statutory functions and powers in the name of the Environment Protection Authority.

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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EXECUTIVE SUMMARY

An Office of the Environment and Heritage (OEH), Department of Premier and Cabinet Compliance Audit was undertaken at the Vopak Terminals Sydney Pty. Limited storage facility located at 20 Friendship Road 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 to be used by the licensee in the event of an incident occurring that is or is likely to impact on the environment or on the local community. The main objectives of the audit were to assess compliance with the requirements of Environment Protection Licence 6007 relating to the management of major environmental risks and emergency management planning, and to recommend an action program to be implemented by the licensee to address any non-compliance identified during the audit.

Assessment of compliance was undertaken using information collected during a detailed audit inspection, information supplied by the enterprise, and a review of records and documentation relating to the premises. The procedures and protocols for conducting compliance audits are detailed in the OEH *Compliance Audit Handbook*. The audit inspection was carried out by officers of the OEH on 28 September 2011.

The findings of the audit indicate that the enterprise was not complying with some conditions attached to Environment Protection Licence 6007 issued under the Protection of the Environment Operations Act 1997.

The non-compliances related to:

- Advertising the telephone complaints line to the public
- Updating the Emergency Response Plan.

A risk assessment of non-compliances is used to colour code non-compliances according to their environmental significance and an action program has been developed. The action program includes a timeframe for non-compliances to be addressed to ensure the licensee deals with issues raised through the audit process in a timely manner (Table 4.1).

While the risk assessment of non-compliances is used to prioritise actions to be taken, the OEH considers all non-compliances to be important and licensees must ensure that all non-compliances are addressed by the due date specified in the Action Program.

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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 (Site B) at 20 Friendship Road 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 28 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 6007 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 20 Friendship Road Port Botany. The facility is located within the Randwick Local Government Area and is surrounded by industrial and port related activities.

The facility is approximately 9 hectares in area and provides import/export/distribution services for petroleum and petroleum related products. The products include a range of fuels, biodiesel and ethanol.

Products are transferred via pipeline to or from the Bulk Liquids Berth (BLB), and via a pipeline to other facilities in Banksmeadow and Silverwater. Jet fuel is also transferred via pipeline to the Sydney Airport.

Road tankers are loaded on site for off site distribution and in addition road tankers are also used to deliver some products to the terminal.

The tank farm storage capacity is approximately 350 000 kilolitres.

1.5 Statutory Instruments Issued to the Enterprise

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

Licence number 6007 issued under the Protection of the Environment Operations Act 1997.

The scheduled activity undertaken at the premises is *Chemical storage* with a fee scale category of > 100 000 kilolitres stored.

The anniversary date for the licence is 17 July.

A copy of Licence 6007 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 6007 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. 6007

Statutory Instrument: Environment Protection Licence No. 6007			
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 product, and ○ the handling of product potentially leading to oil contamination of receiving waters. ○ Transfer of product in pipelines from the Bulk Liquid Berth. <p>The auditors did not identify any other major environmental risks during the audit inspection.</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 devices to help prevent overfilling of storage tanks which can lead to spillages • Procedure for personnel and contractors to prevent the handling of product outside of designated areas 	

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

Statutory Instrument: Environment Protection Licence No. 6007			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<ul style="list-style-type: none"> • Impervious secondary containment provided to product storage and handling areas • Truck filling is interlocked with secure coupling to prevent leakage • Liquids collected in the bund sumps are treated to remove oil prior to release to the final stormwater interceptor pit • Final stormwater pit is fitted with a valve which remains closed under normal operating conditions to prevent uncontrolled discharges • 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" • The licensee provides two personnel on the berth during transfer and communication is maintained with 2-way radios • Regular patrols of the wharf pipeline by licensee personnel during transfer • Pipes pigged clean after each transfer to prevent leaks when the pipeline is not in use • Cathodic protection to minimise pipe corrosion and prevent leaks • Training of staff in the use and management of controls and their roles 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 identified at the site. Monitoring undertaken by the licensee includes the use of:</p>	

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

Statutory Instrument: Environment Protection Licence No. 6007			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<ul style="list-style-type: none"> • Written procedures • Routine inspections/maintenance/calibration of monitoring and control equipment • Monitoring high level alarms on storage tanks to ensure they operate as required • Drills and simulations to help ensure that site staff responds as required to emergency situations • Inventory and groundwater monitoring as a backup to tank leak detection • Discharges from the premises are monitored in accordance licence conditions • Pipeline flow rate/pressure monitored to detect loss of containment during transfers • Pipelines pressure tested to ensure integrity and prevent leaks • Control room is attended at all times 	
	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 storage and handling of flammable products.</p>	
		<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"> • Eliminating ignition sources from the site • Overfill protection is installed on tanks in the tank farm and on road tankers receiving product to prevent spillages • Tanks fitted with self-righting pressure relief valves reduce the risk of tank failures • Tanks fitted with a floating roof and rim seal to reduce vapour production 	

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

Statutory Instrument: Environment Protection Licence No. 6007			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<ul style="list-style-type: none"> • Vapour recovery unit (VRU) to help prevent vapour emissions from the site • Road tanker connections for filling, vapour return and level detection are sealed to prevent the emission of vapours • Vapour return hoses are interlocked and filling cannot commence without proper connections being made • Road tanker loading is interlocked to the VRU. If the VRU fails then tanker loading cannot be carried out. • Cathodic protection is provided to pipelines to minimise corrosion damage • Prohibition of potential ignition sources onsite • All maintenance work on the premises is subject to a procedure requiring gas testing to reduce the potential for fire and explosions • 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 • A gas detector is installed at the VRU to monitor the performance of vapour recovery • Routine inspections of control and monitoring equipment • Emissions from the vapour recovery unit are monitored to ensure the efficiency of the carbon beds 	

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

Statutory Instrument: Environment Protection Licence No. 6007			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<ul style="list-style-type: none"> • Drills and emergency simulations to help ensure that site staff responds as required to emergency situations • Tanker loading is subject to monthly audits and quarterly external audits • Pipelines checked 2 yearly (X-ray and hydrostatic testing) to ensure against leaks and failures • Alarms sent to the control room operators and control room always attended 	
	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 environmental incidents. The procedures include;</p> <ul style="list-style-type: none"> • Emergency response procedures for major risks identified that include emergency plant shut down (ESD). (Staff are empowered to activate an ESD without seeking approval) • 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	<p>Emergency Response Plan</p> <p><i>Documentation systems and procedures within the Emergency Response Plan to deal with all types of incidents and keeping the Plan onsite</i></p>	
	No Code Red	<p><i>Maintaining the Emergency Response Plan</i></p> <p>The licensee has correctly identified the EPA Pollution Line number 131555 in the</p>	The licensee must ensure that the Emergency

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

Statutory Instrument: Environment Protection Licence No. 6007			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<p>emergency telephone log contained in the Emergency Response Plan. However the number 9325-5725 also appears in the Emergency Response Plan as a 24 hour contact number for the OEH and this number is not correct. In addition, an OEH officer identified in the 'External Contacts' table of the Emergency Response Plan is no longer the OEH contact for this licence.</p> <p>The OEH is concerned that the Plan is not updated to reflect current contact details.</p>	Response Plan is updated immediately to remove any confusion with the OEH contact details.
M	<p>MONITORING CONDITIONS</p> <p><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></p>		
M4.1, M4.2 & M4.4	<p>Recording of pollution complaints</p> <p>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.</p>		
M4.3	<p>It is beyond the scope of the audit to determine whether the licensee retains the records for at least 4 years.</p> <p>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.</p>		
M5.1	Yes	<p>Operating a telephone line for receiving complaints</p> <p>The licensee operates, during its operating hours a telephone line for the purpose of receiving any complaints from members of the public.</p>	
M5.2	No Code Blue	<p>Advertising the telephone complaints line number to the public</p> <p>The licensee does operate during its operating hours a telephone line and the number of the telephone line is advertised on the company's website. It was noted that the telephone line is not advertised as a complaints line for the purpose of making a complaint.</p> <p>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.</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 the public for the purpose of making complaints.

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

Statutory Instrument: Environment Protection Licence No. 6007			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		The OEH is concerned that the telephone line is not advertised as a complaints line for the purpose of receiving any complaints from members of the public.	
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 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.

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. 6007

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 B 20 Friendship Road, Port Botany, Sydney NSW 2036. (Licence Number 6007)

This letter is a response to the Draft Compliance audit report following the audit that was conducted on 28th September 2011 at the Site B 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', with a long horizontal flourish extending to the right.

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: FIL11/9721
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 6007)**

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 afforded to OEH officers during the audit inspection. If you require further information or clarification on any matters regarding this audit, please do not hesitate to contact Dennis Pascall 02 9995 5573.

Yours sincerely

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

Enclosure: Draft Audit Report Vopak Terminals Sydney Pty Limited