



Operational Environmental Management Plan – Bulk Liquids Berth 2

Version 2 – October 2013

NSW Ports

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Glossary of Terms and Acronyms

The following specific terms have been used throughout this plan and have the meanings, and reference specific parties, as defined below.

Term	Definitions
AQIS	Australian Quarantine and Inspection Service
BLB2	Bulk Liquids Berth 2 – includes the wharf and the land between the seawall and the entrance gateway at the Office Building
BLB Manager	Bulk Liquids Berth Manager
CAR	Corrective Action Request
Control Measures	The actions to be undertaken to achieve the stated environmental objectives, including any necessary approval, application, consultation or monitoring.
Corrective Action	Nomination of the action being implemented if the stated objectives are not being met or maintained, including the person or organisation responsible for implementing the required action.
DP&I	Department of Planning and Infrastructure. DP&I is responsible for regulating compliance with the Project Approval.
Director-General	The Director-General of DP&I
EA	The Environmental Assessment (Bulk Liquids Berth No. 2 – Port Botany) dated November 2007 and prepared by Sinclair Knight Merz
Environmental Issue	The aspect of the environment requiring management consideration.
Environmental Intent	Description of the intended management approach for the environmental issue.
Environment Inspector	An employee of NSW Ports who is performing the duties of BLB Officer in the role of Environmental Auditing.
Environmental Objectives	The environmental performance that are to be achieved.
EP&A Act	NSW Environmental Planning and Assessment Act 1979

EPA	Environment Protection Authority
EPL	Environment Protection Licence issued by the EPA
ESD	Ecologically Sustainable Development
MLA	Marine Loading Arm
Monitoring	The process of measuring actual performance and nomination of the frequency and timeframe in which monitoring is to be carried out and/or completed.
OEH	Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
Operating Company	Each company whose personnel are, will be, or have been utilising the berth for a particular vessel.
Performance Indicators	Nomination of the criteria against which the level of achievement of the stated environmental objectives are to be measured.
POEO Act	NSW Protection of the Environment Operations Act 1997
Port Botany Operations Pty Ltd	Operating company for the BLB2, operating under the company name NSW Ports.
Project Approval	The approval granted by the Minister for Planning for Major Project Application 07_0061
Reporting	Description of the required reporting arrangement, including auditing for each control measure.
SHIPS	Sydney's Integrated Port System – the vessel booking and Dangerous Goods Management System
VTS	Sydney Ports' Vessel Traffic Services
Wharf	All the areas seaward of the security fence adjacent to the seawall at BLB2.

1. Introduction

1.1 Background

The Bulk Liquids Berth 2 (BLB2) is the second purpose-built bulk liquids facility located at Port Botany, adjacent to the BLB1. It is a common user facility controlled by the Port Botany Operations Pty Limited (operating as NSW Ports).

Vopak Terminals Pty Ltd submitted a Major Project Application (07_0061) under Part 3A of the Environmental Planning and Assessment Act 1979 (now repealed) for the construction and operation of the BLB2 facility at Port Botany, on behalf of Sydney Ports Corporation (SPC). On 20 March 2008 planning approval was granted for the project. NSW Ports assumed control of the facility on 1 June 2013 as part of the 99 year lease of Port Botany and is responsible for overall compliance with the Conditions of Approval.

The conditions of Project Approval (Appendix A) require an Operational Environmental Management Plan (OEMP) to be completed for the BLB2. This OEMP relates to the use of the BLB2 as a bulk liquids transfer facility.

The aim of this OEMP is to provide detailed frameworks, policies, performance criteria and procedures to minimise the physical, social and environmental impact of activities during operations at the BLB2. In particular, the OEMP includes monitoring and reporting mechanisms whereby the performance of the system can be measured and agreed corrective actions implemented in a timely manner in the event of an incident.

The OEMP has been prepared in accordance with the *Guideline for the Preparation of Environmental Management Plan* (DIPNR, 2004), and sound engineering and environmental practice.

The OEMP is designed to be read in conjunction with the NSW Ports BLB2 Operations Manual which also includes operational environmental management procedures.

1.2 Project Description

Location

The site of BLB2 is to be located on the west side of privately owned Fishburn Road, adjacent to the boundary of Vopak Site B and the Elgas Caverns, in the suburb of Port Botany (see Figure 1). BLB2 is located adjacent to the existing Bulk Liquids Berth (BLB1) at the south-western end of Brotherson Dock approximately 11 km south of the Sydney CBD. Port Botany has been substantially developed for industrial purposes relating to shipping and port activities. The resulting built form of the suburb has resulted in complex infrastructure and services reliant on and providing niche services to the larger economic activities associated with the Port.



Figure 1: Location of BLB2

Operational Activities

The main products handled at the BLB are refined fuels, gases and chemicals. The BLB2 comprises a concrete deck on a steel piled pier berth adjacent to the existing BLB1; associated infrastructure such as marine loading arms, fire fighting equipment, onshore support facilities and pipelines from existing user sites to the new berth. The open access, multi user berth operates on a 24 hour/ 7 day per week basis. BLB2 has been designed to accommodate 120,000 dead weight tonne vessels to a maximum of 270m length overall. BLB2 will also allow for the servicing of ships at the berth.

The following companies have established bulk liquids/gas storage terminals at the Port and are current tenants of NSW Ports:

- Terminals Pty Ltd;
- Qenos Australia Pty Ltd (Hydrocarbon Storage Facility);
- Origin Energy
- Elgas Pty Ltd; and
- Vopak Terminals Australia.

Environmental Protection Licenses (EPLs) issued by the EPA will be held by each of the operating users and it will be the responsibility of those users to ensure that they meet the conditions of those licenses. NSW Ports will not place conditions on users that contradict the requirements of the EPLs.

Beneficiaries of BLB1 (and of BLB2) include the chemical manufacturing industry, LPG users, oil majors and fuel supply to Sydney Airport.

All traffic enters BLB2 via the existing BLB1 access point on Charlotte Rd. There is a negligible increase in traffic associated with the operation of BLB2. The minor increase would be from increased operational and maintenance staff required to operate the new facility (<5 staff). Any increases in truck movements associated with the greater throughput of chemicals, gases and petroleum products will be considered in development approvals for the user's storage facilities connected to the BLB1 and BLB2, rather than this development.

Although BLB2 operates 24 hours a day, seven days a week it is unlikely that operations from the BLB2 will result in noise complaints due to the distances to sensitive receivers and the highly industrialised nature of the area. The operation of the facility also does not involve high noise generating activities, the only identified source of noise being the ship generators and on board pump systems. The Project Approval stipulates the operational noise limits for the BLB2 at residential receivers as outlined in Table 1.

Table 1 – Operational Noise Limits for Representative Residential Receivers

Location	Day/Evening/Night	Day/Evening/Night
	Bulk Liquids Berth No. 2 only LAeq(15 minute) (dB(A))	Bulk Liquids Berth 1 and 2 LAeq(15 minute) (dB(A))
Botany Road, north of the Golf Club	35	38
Australia Avenue	35	38
Wassel Street/Military Road	35	38
Elaroo Avenue	35	38

A complaints system will be in operation for the BLB2 to manage and respond to noise complaints should they arise. Further details are included in Section 2.4. A noise audit will be undertaken within 90 days of the commencement of operation as per the Ministers Condition of Approval 3.2 (see Appendix A) to ensure compliance with the above noise limits.

Proposed Dangerous Goods

The flammable liquids, liquefied flammable gases and chemicals for transfer at BLB2 are listed in Table 2. The table also provides an assessment of their potential impacts on the environment.

Table 2 – Proposed Dangerous Goods for Transfer and Handling at BLB2

Material Name	Class	Potential Environmental Impacts
<i>Liquefied Petroleum Gas - LPG</i>	2.1. Flammable Gas	- Minimal environmental damage as gas evaporates rapidly with little or no impact to surroundings.
<i>Refined Petroleum and Chemicals</i>	3 (PG I & II) Flammable Liquid	- Potential impact to the bio-physical environment depending on spill quantity and containment.
<i>Bio-diesel</i>	C1 Combustible Liquid	- Potential impact to the bio-physical environment depending on spill quantity and containment.
<i>Corrosive Substance</i>	8 (PG II & III) Corrosive Liquids	- Liquid is corrosive and may damage materials which it contacts causing weakening of structures and equipment - Potential impact to the bio-physical environment depending on spill quantity and containment.
<i>Toxic Substances</i>	6 (PG II & III) Toxic Liquids	- Liquids are toxic and may impact the bio-physical environment depending on the spill quantity and containment.

1.3 OEMP Context

Applicable Legislation

Table 3 defines the legislation that applies to the operation of BLB2. In the event of any inconsistency arising between the implementation of the OEMP and state or local government regulations, the regulatory requirements take priority.

Table 3 – Acts of legislation applicable to BLB2 Operations

Legislation	Intent	Regulatory authority
<i>Environmental Planning and Assessment Act 1979</i>	To assess the impact of the development's operations on the environment.	NSW Department of Planning and Infrastructure
<i>Marine Pollution Act 2012</i>	To protect the State's marine and coastal environment from pollution by oil and certain other marine pollutants	NSW Roads and Maritime Services (delegated to Sydney)

	discharged from ships.	Ports for Botany Bay)
<i>Protection of the Environment Operations Act 1997</i>	To regulate activities so as to prevent pollution of the environment	NSW Environment Protection Authority
<i>Protection of the Environment Operations (Clean Air) Regulations 2010</i>	Details the requirements a business is required to adhere to with the aim of ensuring the long-term quality of natural air.	NSW Environment Protection Authority
<i>Protection of the Environment Operations (Noise Control) Regulations 2008</i>	Details the requirements that a business is required to adhere to with the aim of controlling and minimising noise pollution.	NSW Environment Protection Authority
<i>Protection of the Environment Operations (Waste) Regulations 2005</i>	Gives specific details as to how businesses should manage any waste or by-products generated during business activities.	NSW Environment Protection Authority
NSW Industrial Noise Policy (EPA, 2002)	Specifies acceptable noise criteria and methodologies for monitoring industrial noise sources.	NSW Environment Protection Authority

Ecologically Sustainable Development

One of the objectives of the EP&A Act is to encourage ESD, and as such, the operation of the BLB2 shall be undertaken in accordance with the principles of ESD.

Where possible, details of the ESD principles will be included in the site induction for staff, tenants and contractors.

Planning Process

This OEMP has been prepared close to the end of the construction stage and will come into effect following construction completion and at the commencement of operation. An Environmental Assessment Report undertaken by consultants Sinclair Knight Merz Pty Ltd was submitted as part of the Project Application under Part 3A of the EP&A Act 1979 (now repealed). This OEMP has been prepared to fulfil the requirements of Conditions of Approval 6.3 (refer to Appendix A). The table in Appendix A identifies where in this document each relevant Condition of Approval has been addressed.

1.4 OEMP Objectives

The objectives of the OEMP are to:

- Identify all appropriate environmental safeguards and demonstrate how they will be implemented on-site;
- Manage site activities effectively;
- Enable adverse impacts on the environment to be minimised;
- Provide for the conservation of the site's environment;
- Identify suitable emergency preparedness and response procedures;
- Provide details of complaints management procedures;
- Meet all requirements of relevant legislation and assist with ensuring compliance of the Project Approval; and
- Monitor and manage environmental and social impacts.

The OEMP is to be used in conjunction with the BLB2 Operations Manual, which also includes operational environmental procedures and controls, as well as safety and security measures.

1.5 Consultation

The OEMP was provided to Randwick City Council and the Environment Protection Authority (EPA) for review. No requirements or comments were provided to NSW Ports on the OEMP. A final copy of the OEMP will be provided to the EPA for their records.

1.6 Environmental Policy

This OEMP is consistent with NSW Ports' Environmental Policy (Appendix B).

2. Environmental Management

2.1 Components of the OEMP

Environmental issues identified in this OEMP are specific to the operational phase of the development. The OEMP has been prepared in an issues-based format that nominates for each environmental issue or impacting activity, the tasks that are required to be addressed during the operational phases of the development, covering:

- Environmental Issue
- Environmental objectives
- Environmental intent
- Control measures
- Responsibility
- Monitoring
- Reporting
- Performance Indicators
- Corrective Action

2.2. Operational Phase Environmental Issues

Table 4 details the environmental aspects of BLB2 operations and provides each with a priority ranking – with 3 being the highest priority and 1 being the lowest priority. The priority ranking is used internally to ensure NSW Ports focuses on those environmental aspects that are of most environmental significance.

Table 4 – Environmental issues covered within the OEMP

Activities	Hazard cause	Environmental Aspect	Potential environmental impact	Rank according to priority
<i>Berthing/ departing ship</i>	Ship mooring accident/ malfunction	Water quality management	Release of fuel/gas/ chemical directly to the marine environment - water contamination	3
<i>Ship to shore transfer of product</i>	Chemical hoses, MLA and pipelines failure	Water and stormwater quality management	Release of fuel/gas/ chemical directly to the marine environment - water contamination	3

			Spill of fuel/chemical in the stormwater system – released to the marine environment – water contamination	3
<i>Ship operations</i>	Discharge of ballast water and impacts of anti-fouling paint from ship	Water quality management	Marine pests and anti-fouling chemicals released into marine environment	1
<i>Ship operations</i>	Ship engines/generators and product pumps in ship holds	Air quality	Increased emissions to the air – reduction in air quality	1
<i>Ship operations</i>	Increase in the number of ships visiting the area	Amenity – noise management	Increased noise pollution levels	1
<i>Emergency Response</i>	Fire at the wharf/pipelines	Water quality management	Requirement to apply fire water could carry contaminants into the bay – water contamination	3
<i>Product transfers on the landside</i>	Pipeline infrastructure failure/leaks	Soil and groundwater quality	Landside spill contaminating the soil/groundwater	2
			Spill entering stormwater system – released to the marine environment – water contamination	3
<i>Maintenance of BLB2 facility</i>	Maintenance activities generating waste materials	Waste management	On-site build up of waste materials. Materials not being recycled where possible.	1
<i>Stormwater system operation</i>	Malfunction of stormwater system	Water quality management	Contaminated stormwater entering the marine environment – water contamination.	3
	Process of stormwater	Waste management	Generation and build up of waste stream from	1

	treatment		stormwater treatment.	
<i>General operations</i>	Presence of an operational work force	Waste management	Build up of on-site litter from food scraps; sewage generated on site.	1

2.3 Roles and Responsibilities

All relevant staff and contractors employed and appointed by NSW Ports shall be formally advised of their obligations under the OEMP and informed of the significance of the OEMP. This process will be achieved via implementation of a site-specific induction.

In addition, responsibilities shall be outlined in position descriptions, Standard Operating Procedures such as the BLB Operating Manual, BLB1 & 2 Safety Management System and generally integrated with various NSW Ports' environmental, safety and quality management systems such as the Port Botany Environmental Management Plan.

It is the responsibility of all workers on site to actively manage and respond to environmental risks and compliance. There is a duty of care to the environment by all personnel. All members within the chain of command are identified below, along with their roles and responsibilities, including environmental responsibilities.

Managing Director

The Managing Director is responsible for providing sufficient funding and resources to ensure the OEMP is fully implemented.

General Manager, Operations

The General Manager is generally responsible for signing off on the OEMP documentation and procedures, the coordination of response to complaints and generally supporting the BLB Manager to deliver the objectives and controls of the OEMP.

BLB Manager

The overall operational responsibility for the BLB2 lies with the BLB Manager. In addition, specific environmental responsibilities include:

- Issue work permits for all approved work on the berths
- Advise the BLB officer and Sydney Ports VTS of the Hazchem Classification Code for the vessel cargo
- Provide oversight of the operation as required
- Review all Checklists, record all defects and sight Certificates
- Ensure all defects or maintenance issues are logged and communicated to NSW Ports Asset Management for attention.
- Generally ensure OEMP compliance during operations

BLB Officer

BLB Officers are currently trained in all responsibilities listed below as they operate the BLB1 in a similar manner. Specific environmental responsibilities include:

- Control of security and access to BLB2 authorised personnel only
- Advising the BLB Manager of any non-compliance with this OEMP
- Checking the berth is clear and clean before ship arrivals and after ship departures
- Control fire-fighting equipment in the event of a fire or other emergency situations on the wharf or vessel
- Control stormwater drainage from the wharf by completing the daily check of the spillage retrieval system
- Monitor wind and weather conditions for the wharf and report all major changes to the NSW Ports BLB Officer carrying out environmental auditing duties, the vessel and the operating company(s)
- Distribute and retrieve permits for work carried out on the berth or in the pipeline corridor
- Receive from the BLB Operations Manager, the list of substances to be transferred and the vessels overall Hazchem Code
- Pre-set the fire fighting system in accordance with the Hazchem Code information obtainable from the vessel entry in the SHIPS system or as instructed by the BLB Operations Manager
- Place Hazchem Coding and IMDG Code Classification Plates on both Emergency Information Boards at the entrance to berth.
- Ensure that the Operating Companies provide current and correct Material Safety Data Sheets for all substances to be transferred and ensure they are placed in each terminals box in the amenities building hallway.
- Check spillage retrieval systems dump valve setting is appropriate for the cargo to be transferred, i.e. "OPEN" for LPG, "CLOSED" for all other cargoes. Check the spillage sump is free of any contamination. If not advise the company that is managing the discharge/load out at the berth to pump out. Check that the operating company has placed their lock/s together with Port Botany Operations Pty Limited lock on both valves of the spillage retrieval system and record non-compliances in the log book.
- Be prepared to proceed immediately to the Fire Control Room in the event of an emergency on the wharf or vessel, which requires the fire fighting system.
- Decide in consultation with the BLB Operations Manager, Senior Shore Officer from the Operating Company and the ships Master, when to cease cargo transfer operation and disconnect the hoses or loading arm due to weather conditions. Wind criteria is in the ship/shore safety check list and is as follows: Stop pumping and clear the loading arms and hoses at 35 knots, Disconnect at 40 knots.
- Ensure the vessels emergency documents are returned to the vessel shortly before vessels departure.
- Complete Vessel Departure Check List (Appendix H and attached to vessel's paperwork held by the Fire and safety Officer.
- On departure of vessel ensure spillage retrieval sump pits are free of any liquid substances by obtaining a sample. If liquid substances are detected advise the operating company(s) and request immediate removal.

- If the sump pits and sample are clear of any spillage, unlock and open dump valve to allow storm water runoff. Record the time of opening the valve in the logbook.
- Receive from the operating company/s a certificate of pipeline clearance. This will include acknowledgment that no spills have occurred and that the spillage sump is clear and all drip trays are empty and free of product. With the exception of the Operating Companies handling Bitumen and Origin and Qenos the Line Clearance Certificate must be left with the BLB Officer before the operators depart the berth.
- Ensure all emergency valves in pipeline corridor valve pit have been closed and locked and there has been no leakage from the pipelines or valves into the pit. Check and report to the BLB Operations Manager if there is accumulation of combustible material or excessive build-up of water in the pit.

Planning and Environment Coordinator

The Planning and Environment Coordinator is responsible for the development and ongoing review of the OEMP documentation as required, and the provision of the relevant documentation on the NSW Ports website. They will also review and approve future Contractor Environmental Management Plans against the OEMP (if required) and maintain the Complaints Register.

2.4 Complaints Response Procedure

This procedure applies to communications directed to NSW Ports' staff and contractors with regards to operations at the BLB2. Community and user complaints and general enquiries may be received through a number of routes.

The contact details for the public to make general enquiries or lodge complaints about BLB2 are:

Office Hours (0900 – 1700 Monday to Friday)

- Telephone: (02) 1300 922 524 (NSW Ports)
- Fax: (02) 9296 4119
- Postal: General Manager Operations, PO Box 297, Botany NSW 1455
- Email: enquiries@nswportsbotany.com.au

The contact details for complaints including telephone number, postal address and email address outlined in this section, are provided on signage located on the security gate at the entrance to the BLB2 site, in a position clearly visible to the public. The purpose of the sign is to advise the public of the contact details for the site should they wish to make a complaint or enquiry.

All general queries will be forwarded through to the NSW Ports Logistics and Corporate Affairs Manager who will respond or disseminate to other staff as appropriate. Early resolution to any complaints will be sought, a response provided and effort made to resolve the query/complaint in a timely manner.

Outside of Office Hours/Emergencies

- NSW Ports BLB staff – telephone (02) 9666 4906
This number is manned 24/7.

All complaints and enquiries will be recorded in the Complaints Register. The information captured in this register will include:

- date and time of the contact or complaint;
- means by which the contact or complaint was made (telephone, mail or email);
- any personal details of the individual who provided the information or complaint, or if no details were provided, a note to that effect;
- the nature of the comment or complaint;
- record of operational and meteorological condition contributing to the comment or complaint;
- any action(s) taken by NSW Ports in relation to the comment or complaint; including any follow-up contact with the individual who provided the information or complaint;
- if no action was taken by NSW Ports in relation to the comment or complaint, the reason(s) why no action was taken.

2.5 Reporting and Auditing

Compliance Reporting

In accordance with the project's Compliance Tracking Program (available at the NSW Ports BLB2 project website, a Compliance Tracking Report will be prepared and provided to the Director-General during the first year of operations, with the frequency of subsequent reports to be determined with DP&I. The Compliance Tracking Reports will be made available on the NSW Ports' website.

Independent Environmental Audit

In accordance with the project's Compliance Tracking Program, an independent environmental audit will be undertaken during the first year of operations, with the frequency of subsequent audits to be determined with DP&I. The Environmental Audit Report will be made available on the NSW Ports' website.

Records

All records required to be kept by this OEMP shall be kept for a minimum of five (5) years and shall be available for examination by a suitably qualified person authorised to inspect the OEMP.

A copy of the project approval and all relevant environmental approvals will be available at the BLB2 site at all times.

All documents required under the project approval will be available for public inspection on request (subject to commercial confidentiality).

Document Currency

The currency of all copies of the OEMP shall be reviewed annually to ensure that current versions of the OEMP are available to staff and contractors and obsolete versions are removed to avoid errors and confusion. OEMP currency will also be maintained via controlled distribution of new revisions, as they become available, to relevant staff and contractors (with obsolete versions removed concurrently). The current version of the OEMP will be available on the NSW Ports' website.

Issue Tracker Non-Conformance Register NSW Ports maintains a register of compliance and non-conformances in the Issue Tracker program. This program will be maintained for operations and will contain all corrective action notices.

2.6 Induction and Training

All staff and contractors working at the site will need to complete the NSW Ports' BLB1 & BLB2 induction course prior to commencing any work or activity at the BLB2. The site specific induction course will include:

1. Control procedures for operational activities that can be followed to minimise environmental impacts (as outlined in the OEMP)
2. Site layout
3. Safety procedures
4. Hazardous materials and their safe use
5. Environmental emergency response procedures
6. Fire fighting
7. Fuel handling and spillage
8. Documentation systems

This will foster an awareness of environmental issues, minimise environmental impacts and inform staff and contractors of their responsibilities and duties.

2.7 OEMP Review

The OEMP and sub-plans shall be reviewed after the first 12 months of operations to ensure that it adequately addresses the identified issues. Follow up reviews shall take place every two years after that, or when operations change that warrants an update of the OEMP.

The review will be undertaken by NSW Ports' staff and will consider as a minimum:

- NSW Ports' staff input
- Any agency input or response from DP&I
- Maintenance/operational activity details

- Environmental monitoring outcomes
- Incidences and non-conformances
- Changes in organisational structure and responsibilities
- Changes in standards and legislation
- All relevant sub-plans

2.8 Emergency Contacts and Incident Response

Table 5 outlines the phone numbers of the relevant government agencies and emergency services that may be required to be contacted during and in response to an emergency. Details are also provided in the BLB 1 & 2 Emergency Plan.

In accordance with the Protection of the Environment Operations Act 1997, any person carrying on the activity (including the occupier of the premises or the employer) which causes a pollution incident which causes material harm to the environment or threatens such harm is to notify immediately each relevant authority as identified in Table 3.

The procedure for notification in the event of an incident is to call 000 in the first instance if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents. If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order:

- The EPA
- The Ministry for Health via the Eastern Zone (Camperdown Office) Public Health Unit
- The WorkCover Authority
- Sydney Ports Corporation
- Randwick City Council

The appropriate contact for the relevant local authority and Public Health Unit will vary. All necessary contact numbers will be found in advance and stored for immediate access should a pollution incident need to be notified.

Complying with these notification requirements does not remove the need to comply with any other obligations for incident notification, for example, those that apply under other environment protection legislation or legislation administered by WorkCover.

In addition, NSW Ports will notify the Director-General of any incident with actual or potential significant off-site impacts on people or the bio-physical environment within 12 hours of occurring. Written details will be provided within 24 hours of the incident or potential incident occurring and a further detailed report containing information on causes and additional necessary preventative measures will be submitted no later than 14 days after the incident or potential incident.

Table 5 – Key Agency Contact Details

Agency	Phone Number
<i>Emergency</i>	000
<i>NSW Ports – BLB Officers</i>	(02) 9666 4906
<i>BLB Manager</i>	(02) 9316 4467 or 0417 217 274
<i>General Manager Operations</i>	0419 888 983
<i>Sydney Ports VTS</i>	(02) 9296 4001 (Marine Pollution Incidents)
<i>Police</i>	
<i>Emergency</i>	000
<i>Non-emergency – Botany LAC</i>	(02) 8338 7399
<i>Ambulance</i>	
<i>Emergency</i>	000
<i>Non-emergency – Metro Division</i>	(02) 8752 0444
<i>NSW Fire and Rescue</i>	
<i>Emergency</i>	000
<i>Non-emergency – Matraville Fire Station</i>	(02) 9694 1146
<i>Environment Protection Authority (EPA)</i>	131 555 (24 hours)
<i>NSW Health</i>	(02) 9311 2707
<i>Matraville Office Public Health Unit</i>	
<i>Randwick City Council</i>	(02) 9399 0999
<i>WorkCover</i>	13 10 50
<i>Sydney Water</i>	13 20 90 (24 hours)
<i>Ausgrid (loss of supply, fallen wires or other electrical emergencies)</i>	13 13 88 (24 hours)
<i>Gas emergencies</i>	13 19 09

2.9 Spill Response Procedures

The design features of the BLB2 ensures that spills that occur on the wharf and landside areas are contained and prevented from entering the waters of Botany Bay. Two spill containment areas (bunds) are located on the deck situated at the manifold area (inner bund) and the entire working platform (outer bund).

The inner bund is intended to contain any accidental minor spills or leaks of petroleum or other chemicals. This bunded area is connected to a collection sump which can be pumped to a wastewater storage tank on land. The working platform is provided with a 200mm high continuous vehicle kerbing around the entire deck (this is the outer bund). The access road has a trafficable ramp, 200mm high, as part of the bund system.

If there are no unloading/loading operations occurring, the bunds are left open and any stormwater is discharged to Botany Bay. All stormwater accumulated in the bunds passes through an oil separator and gross pollutant trap system before being discharged to Botany Bay, even if it is sighted to be clean.

Spill into the water

In the event of a spill from a ship into the waters of Botany Bay, the first step is for the BLB officers with the assistance of the ship's crew to isolate the cause of the spill and prevent as much product from entering the water as possible. The next step is to notify Sydney Ports VTS centre on 02 9296 4001 which has trained staff and equipment (such as oil booms) on duty 24/7 at Brotherson Dock for rapid deployment. Sydney Ports have developed a comprehensive spill response manual and procedures for Port Botany operations and other resources are available to respond to spills into the ocean. Sydney Ports have the following responsibilities in Botany Bay:

- Administer dangerous goods transported in marine waters;
- Provide a 24 hour emergency response crew for spills into marine waters;
- Clean up and investigation of spills;
- Prosecution of spill offenders; and
- Provide 24 hour port communication.

Sydney Ports' personnel are trained in spill containment and recovery of spilt materials with emergency exercises conducted at least annually.

Spill on the landside/bunded areas

During ship unloading, any liquid (i.e. product) that enters the bunded area is deemed to be potentially contaminated and is pumped to the storage tank for treatment and/or disposal to an OEH approved waste handling facility.

All stormwater from the working platform that is collected during the loading/unloading operations is initially visually assessed to determine whether it is free from pollution. Clean stormwater is suitable for release to Botany Bay, however, if any contamination is detected, the stormwater is diverted to the wastewater storage tank. Water from the wastewater storage tank is then tested (if required), classified according to the DECC waste management guidelines and then disposed of at an appropriately licensed liquid waste management facility appropriate facility.

In the event of a significant spill on the work platform, the liquid material will be pumped out from the bund to the wastewater storage tank and/or an approved waste road tanker and taken off-site for appropriate disposal.

In the event of a minor spill, the spilled liquid will be cleaned up by operational personnel using spill kits that are located at the end of the wharf. All BLB2 officers are trained in the use of spill kits.

Once loading/unloading operations have ceased, the bunded areas are visually assessed to determine whether the area is free from product spills.

3. Implementation

3.1 Risk Assessment

As part of this OEMP, a risk assessment has been undertaken to ensure that the outcomes of the environmental assessment, conditions of approval and any other site investigations are effectively translated into operation at the BLB2. Each Operational Environmental Management Issue Table identifies potential impacts associated with each operational activity for the site and how they are to be managed, referring to specific control measures outlined in this document.

The risk assessment process utilised below is based on the Australian Standard, AS/NZS 4360:2004 - Risk Management and ISO 14001:2004 Environmental Management Systems, which uses qualitative measures to estimate the consequence or impact of an event, along with the estimate of likelihood.

Each risk was assessed as being low (L), medium (M) or high (H) in terms of both consequence and likelihood. The Risk Analysis Matrix shown in Table 6 was applied to assess the priority of the various hazards identified.

Table 6 – Risk Analysis Matrix

Likelihood	Consequences				
	Insignificant	Minor	Moderate	Major	Catastrophic
<i>Almost Certain</i>	L	M	H	H	H
<i>Likely</i>	L	M	H	H	H
<i>Moderate</i>	L	M	H	H	H
<i>Unlikely</i>	L	L	L	M	H
<i>Rare</i>	L	L	L	M	M

3.2 OEMP Environmental Impacts and Control Measures

Table 7 - Stormwater and Water Quality Management

Environmental Objectives	
<p>To avoid detrimental impact on the water quality and marine environment of Botany Bay. To maintain and protect the integrity of Botany Bay and other waterways. To comply with the following legislation:</p> <ul style="list-style-type: none"> - <i>Protection of the Environment Operations Act 1997</i> - <i>Protection of the Environment Operations Regulation 2009</i> - <i>Environmental Planning and Assessment Act 1979</i> - <i>Marine Pollution Act 2012</i> - NSW Health and Safety Requirements 	
Potential Environmental Impacts	Risk Rating
1. Detrimental impact on the water quality and marine environment of Botany Bay	M
2. Non-compliance with legislative requirements	M
Control Measures	Responsibility
<p>To minimise spills from ships at berth:</p> <ul style="list-style-type: none"> - Ships to sail at low speed past the BLB and to be under Sydney Ports tug and pilot control at all times - Fixed fenders will be maintained on the wharf to provide cushioning should excessive impact with the wharf occur - A marine exclusion zone is in force around the BLB2 (no unauthorised vessels in BLB2 area) - Transfers will cease in high wind speeds (hoses isolated) and when lightning occurs 	
<p>To minimise leaks and spills from pipelines/equipment:</p> <ul style="list-style-type: none"> - Fire safety system testing and critical equipment checks will occur prior to ships commencing transfer - All hoses will be pressure tested annually and tested with nitrogen prior to each use - New gaskets will be used for each transfer - Operator will ensure the hoses used are rated appropriately for the pressure/ service - The start-up procedures include monitoring the pressuring of hoses including leak detection - Manual shut down valves are located at each end of the flexible 	
	Sydney Ports
	Asset Manager
	BLB2 Officers/ Sydney Ports
	BLB2 Officers
	BLB Manager
	BLB Manager
	Operating Terminals
	Operating Terminals
	Operating Terminals
	Operating Terminals

hose and an emergency shutdown is installed in the base of the MLA	Operating Terminals/ BLB Manager
- Hydrostatic testing of pipes and commissioning is to be conducted every two years (or when maintenance is performed on pipelines);	Operating Terminals
- Pipes are to be empty and liquid free between transfers	Operating Terminals
- MLA connections will be pressure tested with nitrogen to 800kPa for liquids and 900kPa for LPG prior to use	Operating Terminals
- The MLA start up procedure includes a staged pressurisation and monitoring to detect any leaks	Operating Terminals
- An operator will be stationed in the vicinity of the transfer point to respond to any incidents and initiate isolation of the transfer in the event of an incident	BLB Manager/ Operating Terminals
- All equipment will be classified to AS60079 (Hazardous Area Classification) to eliminate ignition sources in the wharf area	BLB Manager
- Three remote-control operated fire monitors are located on the wharf and a fire water pump station is located on the shore (diesel duty/stand-by)	
To minimise the impact of spills on the environment:	
- The working platform is to be bunded and closed off when bulk liquid pumping is being undertaken. When BLB2 is vacant, the working platform will be checked beforehand to ensure no residual spills and stormwater run-off on the platform would be discharged to Botany Bay. When pumping operations are underway, the bund drain valve would be closed and any liquid within the bunded area sump would be inspected to determine whether to discharge to sea or to drain to the wastewater storage tank. All stormwater accumulated in the bunds passes through an oil separator and gross pollutant trap system before being discharged to Botany Bay, even if it is sighted to be clean.	BLB2 Officer
- All staff and contractors will comply with the spill response procedures outlined in Section 2.9.	BLB Manager
- BLB2 staff and operating terminals will participate in annual emergency exercises and drills and testing of safety equipment	BLB Manager
- Spill kits are available at the end of the wharf and will be maintained by BLB officers	BLB2 Officer
- An oil boom facility is readily available to be deployed from the nearby Brotherson Dock	Sydney Ports
To minimise the impact of marine pests and biofouling:	
- Ballast water and hull fouling from visiting ships would continue to be managed as per AQIS requirements – i.e. no unapproved release of ballast water into Botany Bay	BLB Manager
- No hull cleaning is permitted, excluding propeller polishing.	BLB Manager

Monitoring	Responsibility
<ul style="list-style-type: none"> - Trained terminal operators are in attendance during the full product transfer cycle to monitor all equipment for leaks and the potential for spills to occur, and have full radio communication with the wharf and shore operations. 	BLB2 Officer
<ul style="list-style-type: none"> - Regular visual inspection, including CCTV of the water and wharf areas will be undertaken during operations to ensure there is no accidental spillage of materials into the Bay. 	BLB2 Officer
Reporting	Responsibility
<ul style="list-style-type: none"> - If accidental spillage of products, waste, chemicals or fuels occurs with the potential to discharge into Botany Bay this shall be immediately reported to NSW Ports BLB Manager and Sydney Ports VTS 	BLB2 Officer
<ul style="list-style-type: none"> - All monitoring data and maintenance records shall be available to the regulating authority on request. 	BLB Manager
<ul style="list-style-type: none"> - In the event of a major spill or release of pollutants from the site, the incident will be reported in accordance with the notification requirements set out in Section 2.8 of this OEMP. 	All staff/operating terminals/contractors
<ul style="list-style-type: none"> - The Compliance Tracking Summary Reports will be available on the NSW Ports website. 	NSW Ports P&E Coordinator
<ul style="list-style-type: none"> - All documents required under the project approval will be available for public inspection on request (subject to confidentiality). 	BLB Manager
Performance Indicators	
<ul style="list-style-type: none"> - Stormwater discharge requirements are met. - No spills resulting in detrimental impact on the water quality and marine environment of the local area. 	
Corrective Actions	
<p>Non-conformance with this OEMP shall be documented and corrective action request (CAR) issued. All CARs will be included in Issue Tracker.</p>	
<p>Corrective actions may include:</p>	
<ul style="list-style-type: none"> - Updating operating procedures and associated documentation (such as this OEMP) as a result of a non-conformance - Feedback from emergency exercises will be incorporated into operating procedures should unacceptable risk be identified. - Re-training staff in the event of a non-conformance to address the area of skills lacking - Review the effectiveness of the induction training program - Corrective works in the event of a design flaw/malfunction of the BLB2 facility 	

Table 8 - Soil and Groundwater Quality Management

Environmental Objectives	
<p>To avoid contamination of the soil and groundwater around the BLB2. To reduce the likelihood of exposure to existing contaminated soil and groundwater. To comply with the following legislation:</p> <ul style="list-style-type: none"> - <i>Protection of the Environment Operations Act 1997</i> - <i>Protection of the Environment Operations Regulation 2009</i> 	
Potential Environmental Impacts	Risk Rating
<ol style="list-style-type: none"> 1. Contamination of the soil under the BLB2 pipeline corridors 2. Contamination of the groundwater on the BLB2 landside area 	<p>L</p> <p>L</p>
Control Measures	Responsibility
<ul style="list-style-type: none"> - Leakages from pipes and hoses will be minimised by monitoring pressure and regular inspections - All staff and contractors will comply with the spill response procedures outlined in Section 2.9. - In the event that contaminated groundwater is discovered, a groundwater management plan and remediation plan will be developed - Appropriate disposal of any contaminated soil or water will be undertaken in accordance with OEH waste management guidelines - Any excavations undertaken on the BLB2 site that will reach depths of 1 metre or greater will require the preparation of an Acid Sulfate Soils Management Plan. 	<p>Operating Terminals</p> <p>All staff/operating terminals/contractors GM, Operations</p> <p>BLB Manager</p> <p>All staff/contractors</p>
Monitoring	Responsibility
<ul style="list-style-type: none"> - Regular visual inspection of the ground around the wharf and under the pipelines will be undertaken to ensure there is no accidental spillage of materials onto the ground. 	<p>BLB Manager</p>
Reporting	Responsibility
<ul style="list-style-type: none"> - In the event of a major spill or release of pollutants from the site, the incident will be reported in accordance with the notification requirements set out in Section 2.8 of this OEMP. 	<p>All staff/operating terminals/contractors</p>

<ul style="list-style-type: none"> - All monitoring data and maintenance records will be available to the regulating authority on request. - The Compliance Tracking Summary Reports will be available on the NSW Ports website. - All documents required under the project approval will be available for public inspection on request (subject to commercial confidentiality). 	<p>BLB Manager</p> <p>NSW Ports P&E Coordinator</p> <p>BLB Manager</p>
Performance Indicators	
<ul style="list-style-type: none"> - No spills resulting in detrimental impact on the groundwater and soil of the BLB2 area. - No increase in contamination as a result of BLB operations 	
Corrective Actions	
<p>Non-conformance with this OEMP shall be documented and corrective action request (CAR) issued. All CARs will be included in Issue Tracker.</p> <p>Corrective actions may include:</p> <ul style="list-style-type: none"> - Updating operating procedures and associated documentation (such as this OEMP) as a result of a non-conformance - Feedback from emergency exercises will be incorporated into operating procedures should unacceptable risk be identified. - Re-training staff in the event of a non-conformance to address the area of skills lacking - Review the effectiveness of the induction training program - Corrective works in the event of a design flaw/malfunction of the BLB2 facility 	

Table 9 - Waste Management	
Environmental Objectives	
<p>To minimise waste generated at the site and reduce the volume of waste requiring disposal to landfill.</p> <p>To prevent disposal of waste from the site to receiving environments.</p> <p>To ensure compliance with the following legislation:</p> <ul style="list-style-type: none"> - <i>Protection of the Environment Operations Act 1997</i> - <i>Protection of the Environment Operations (Waste) Regulation 2005</i> - EPA Waste Classification Guidelines 2008 	
Potential Environmental Impacts	Risk Rating
1. Litter entering surrounding marine environment (Botany Bay)	L
2. Waste not sent to correct waste facilities or being recycled	L

3. Wastewater entering Botany Bay		L
Control Measures		Responsibility
- The onsite sewage system will be connected using hoses and pumps to the onshore tank		Asset Manager
- Waste minimisation will occur according to the hierarchy of avoidance, reuse, recycle and disposal. Where possible, recyclable waste will be segregated and sent to appropriate facilities for recycling		BLB2 Officers/Asset Manager/operating terminals
- On-site waste storage facilities of suitable scale and number shall be provided. All external rubbish bins are to comply with the development guidelines for the relevant statutory authorities' requirements.		Asset Manager
- All waste disposal will occur in accordance with the EPA Waste Classification Guidelines.		BLB2 Officer/Asset Manager/Operating Terminals/Ships agents
- Ensure correct handling and storage of hazardous wastes and removal/disposal by licensed contractor to approved facility.		BLB2 Officer/ Operating Terminals/ Ship agents
- Wastewater from the bunds will be collected in the wastewater storage tank and analysed before being released. If contaminated, the water will be treated and disposed of in accordance with the EPA Waste Classification Guidelines		BLB2 Officer/ Operating Terminals
Monitoring		Responsibility
- Regular inspections of the wharf area shall be undertaken to ensure there is no ground waste that could be washed into the Bay in a rain event.		BLB2 Officer
- Inspections of wastewater in the bunds will take place before being released or disposed of.		BLB2 Officer
Reporting		Responsibility
- Failure of any aspect of the waste management system shall result in a review of the reasons for the failure and the implementation of corrective actions.		BLB Manager
- The Compliance Tracking Summary Reports will be available on the NSW Ports website.		NSW Ports P&E Coordinator
- All documents required under the project approval will be available for public inspection on request (subject to confidentiality).		BLB Manager

Performance Indicators

- Absence of visual waste and litter accumulating on the site
- No contaminated wastewater discharged into Botany Bay
- Compliance with the Work Health and Safety Act 2011, regulations for waste management and public health and the guidelines for relevant statutory authorities.
- Compliance with Australian Quarantine Act and Regulations

Corrective Actions

Any waste spillage that occurs on-site shall be cleaned up immediately using appropriate methods. If required, the responsible entity shall arrange professional cleanup services.

If a failure in the waste management system has occurred (as a result of a spillage or extensive littering), the identified failure in the waste management procedure shall be identified and corrected.

Corrective actions may include:

- Updating operating procedures and associated documentation (such as this OEMP) as a result of a non-conformance
- Re-training staff in the event of a non-conformance to address the area of skills lacking
- Review the effectiveness of the induction training program
- Corrective works in the event of a design flaw/malfunction of the BLB2 facility

Table 10 - Local Amenity (Noise and Air) Quality Management

Environmental Objectives

To minimise operational noise impact on nearby sensitive receptors.

To minimise air quality impacts, including odour on nearby sensitive receptors.

To ensure compliance with the following legislation:

- *Protection of the Environment Operations Act 1997*
- *Protection of the Environment Operations (Noise Control) Regulation 2008*
- NSW Industrial Noise Policy (EPA, 2002)
- *Protection of the Environment Operations (Clean Air) Regulation 2010*

To ensure that the noise limits specified in the condition are complied with.

Potential Environmental Impacts

Risk Rating

- | | |
|---|---|
| 1. Noise nuisance to surrounding sensitive receivers | L |
| 2. Reduced air quality and odour nuisance for surrounding sensitive receivers | L |

Control Measures	Responsibility
- BLB officers will investigate ships that are emitting excess/abnormal amounts of noise and/or emissions	BLB2 Officer
- Ensure noise levels from operations are below a night time noise criteria of 40dB(A) at the nominated locations in Table 1	BLB Manager
- Any plant and equipment on site will be correctly maintained and fitted, where practicable with efficient silencers and low-noise mufflers (residential standard).	BLB Manager
- Where available, EPA approved vapour emission controls will be used on operational vehicles and equipment	BLB Manager
Monitoring	Responsibility
- A noise audit will be undertaken within 90 days of the commencement of operations in a period where the facility is operating under normal conditions and will include the requirements listed under Condition 3.1.	P&E Coordinator
- Noise measurements will take place at the most affected point on or within the residential boundary at the locations described in Table 1 and subject to the relevant conditions listed in Condition 2.11.	P&E Coordinator
Reporting	Responsibility
- The noise audit report will be provided to the DG and EPA (previously DECCW) and will identify non-compliances (if any) and detail additional measures as per Condition 3.2.	P&E Coordinator
- Records of all noise and air quality related complaints will be kept and responded to and corrective actions implemented where possible.	P&E Coordinator
- The Compliance Tracking Summary Reports will be available on the NSW Ports website.	P&E Coordinator
- All documents required under the project approval will be available for public inspection on request (subject to confidentiality).	BLB Manager
Performance Indicators	
- No valid noise complaints received in relation to operation of the BLB2	
- No exceedance of noise limits specified in Table 1	
- No valid air quality complaints received in relation to operation of the BLB2	
- No offensive odours to be emitted beyond the boundary of the site unless otherwise permitted by an Environmental Protection Licence	

Corrective Actions

Non-conformance with this OEMP shall be documented and corrective action request (CAR) issued. All CARs will be included in Issue Tracker.

Corrective actions may include:

- Reporting of excessively noisy/smoke emitting ships to the vessel operators
- Updating operating procedures and associated documentation (such as this OEMP) as a result of a non-conformance
- Re-training staff in the event of a non-conformance to address the area of skills lacking
- Review the effectiveness of the induction training program
- Corrective works in the event of a design flaw/malfunction of the BLB2 facility

Table 11 - Community Consultation, Enquiries and Complaints System Management

Environmental Objectives

To adequately manage and respond to any community/stakeholder enquiries and complaints.

Potential Environmental Impacts

Risk Rating

1. Impacts on relationships with stakeholders due to poor communication and/or unresolved issues.

L

Control Measures

Responsibility

- | | |
|---|-----------------------|
| - Use of the existing Port Botany Neighbourhood Liaison Group to discuss BLB2-related issues. | GM, Operations |
| - Ensure that the NSW Ports phone lines described in Section 2.4 are current, or that the OEMP is updated with the appropriate phone numbers | P&E Coordinator |
| - The Complaints Management Procedure described in Section 2.4 will be applied to address and respond to issues raised by the community and stakeholders. | All staff/contractors |
| - Use of the NSW Ports website for the provision of public information relating to the BLB2 | P&E Coordinator |

Monitoring

Responsibility

- | | |
|---|----------------|
| - NSW Ports will monitor relationships with key stakeholders through the avenues described above. | GM, Operations |
|---|----------------|

Reporting

Responsibility

- For audit and compliance purposes, details of all complaints are to be logged and updated in the Complaints Register as described in Section 2.4. The Register will be used to track the progress of complaints handling, ensure all involved personnel understand and maintain engagement with the process. P&E Coordinator
- The Compliance Tracking Summary Reports will be available on the NSW Ports website. P&E Coordinator
- All documents required under the project approval will be available for public inspection on request (subject to confidentiality). BLB2 OM

Performance Indicators

- All emergency complaints received acknowledged within 2 hours via telephone
- Non-emergency complaints received acknowledged within 24 hours via telephone or email
- All complaints investigated and a response provided within 5 working days.

Corrective Actions

Non-conformance with the plan shall be documented and a CAR issued. All CARs shall be included in the non-conformance register.

Corrective actions may include:

- Updating complaints management procedures and associated documentation (such as this OEMP) as a result of a non-conformance
- Re-training staff in the event of a non-conformance to address the area of skills lacking
- Review the effectiveness of the induction training program

Table 12 - Hazard and Emergency Response Management

Environmental Objectives

To ensure emergency response procedures are adequate.

Potential Environmental Impacts

Risk Rating

1. Risk of harm to human health or the environment as a result of exposure to dangerous or hazardous goods.

M

Control Measures

Responsibility

- Emergency and Safety Management Plans have been prepared by each user and an Emergency Plan prepared for the facility that

BLB Manager

ensures incidents are handled promptly and safely. The Plan outlines the appropriate emergency response equipment that will be provided, the mandatory training requirements, the emergency response procedures and the responsibilities of the site operators	
- All chemicals, fuels and oils will be stored and handled in appropriately bunded areas	BLB2 Officer
- Correct and up to date MSDS documents will be kept for all materials being handled as part of operations	BLB2 Officer
- Fire safety system set up and critical equipment checks will occur prior to ships discharging and will be monitored during transfer	BLB2 Officer
- Routine servicing and maintenance will be implemented for fire safety systems and emergency equipment.	BLB Manager/ Asset Manager
- External fire hydrants, fire detection and occupant warning systems, fire hose reels, exit & emergency signage will be maintained in a manner compliant with the fire safety regulations.	Asset Manager
- Hose connections will be pressure tested prior to each use	BLB2 Officer/ Operating Terminal
Monitoring	Responsibility
- Inspection of dangerous goods handling areas and spill kits will be made regularly to ensure they are in a suitable condition.	BLB2 Officer
- Monitoring of emergency protocols on an annual basis to update any emergency response requirements or evacuation plans.	BLB Manager
- Fire systems and fire safety measures shall be certified annually and maintained in accordance with the relevant maintenance schedule provided by the supplier.	Asset Manager
Reporting	Responsibility
- The BLB Manager/officers will report any accident or emergency to the relevant emergency agency in accordance with Section 2.8.	All staff/operating terminal/contractors
- Any non-conformances with the OEMP and any relevant standard or approval conditions will be reported to the General Manager, Operations and the relevant agencies.	All staff/operating terminal/contractors
- All documents required under the project approval will be available for public inspection on request (subject to confidentiality).	BLB Manager
- NSW Ports will notify the Director-General of any incident with actual or potential significant off-site impacts on people or the bio-physical environment within 12 hours of occurring.	GM, Operations
- Written details will be provided within 24 hours of the incident or potential incident occurring and a further detailed report containing information on causes and additional necessary preventative measures will be submitted no later than 14 days after the incident or potential incident.	GM, Operations

Performance Indicators

- No serious injury, pollution incident or damage/loss of property caused by operational activities.

Corrective Actions

Non-conformance with this OEMP shall be documented and CAR issued. All CARs will be included in Issue Tracker.

Liaison with relevant emergency service agencies will be undertaken from time to time in relation to risk management.

Corrective actions may include:

- Updating operating procedures and associated documentation (such as this OEMP) as a result of a non-conformance
- Feedback from emergency exercises will be incorporated into operating procedures should unacceptable risk be identified.
- Re-training staff in the event of a non-conformance to address the area of skills lacking
- Review the effectiveness of the induction training program
- Corrective works in the event of a design flaw/malfunction of the BLB2 facility

Appendix A – Project Approval Conditions

Reference	Project Phase	Condition	Addressed
<i>1.1. Terms of Approval</i>	General	<p>The proponent shall carry out the project generally in accordance with the:</p> <ul style="list-style-type: none"> a.) Major Projects Application 07_0061 b.) Bulk Liquids Berth No. 2 – Port Botany EA, 2007, Sinclair Knight Merz Pty Ltd c.) Additional information provided by Sinclair Knight Merz Pty Ltd to DP&I titled Failure Frequency of the Port Botany BLB2 Marine Loading Arms (letter dated 18 Dec 2007). d.) Response to Submissions Report prepared by Sinclair Knight Merz Pty Ltd and dated Feb 2008 e.) The conditions of this approval. 	To be included in Users Licence Agreements
<i>1.2 Terms of Approval</i>	General	<p>In the event of an inconsistency between:</p> <ul style="list-style-type: none"> a.) The conditions of this approval and any document listed from condition 1.1a to 1.1d inclusive, the conditions of this approval shall prevail to the event of the inconsistency; and b.) Any document listed from condition 1.1a to 1.1d inclusive, and any other document listed from condition 1.1a to 1.1d inclusive, the most recent document shall prevail to the extent of the inconsistency. 	To be included in Users Licence Agreements
<i>1.3 Terms of Approval</i>	General	<p>The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department’s assessment of:</p> <ul style="list-style-type: none"> a.) Any reports, plans or correspondence that are submitted in accordance with this approval; and b.) The implementation of any actions or measures contained in these reports, plans or correspondence. 	To be included in Users Licence Agreements

<i>1.7 Compliance</i>	General	The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	To be included in Users Licence Agreements
<i>1.8 Compliance</i>	General	The Proponent shall be responsible for environmental impacts resulting from the actions of all persons on site, including contractors, sub-contractors and visitors.	To be included in Users Licence Agreements
<i>1.6 Statutory Requirements</i>	General	The Proponent shall ensure that all licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the development. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.	Section 2.5
<i>2.3 Odour</i>	General	The Proponent shall not permit any offensive odour, as defined under section 129 of the POEO Act 1997, to be emitted beyond the boundary of the site unless otherwise permitted by an Environment Protection Licence.	Table 10
<i>2.9 Operation Noise Impacts</i>	Operational	The Proponent shall minimise noise emissions from plant and equipment operated on the site by installing and maintaining, wherever practicable, efficient silencers and low-noise mufflers (residential standard).	Table 10
<i>2.10 Operation Noise Impacts</i>	Operational	The Proponent shall design, operate and maintain the project to ensure that the noise contributions from the project do not exceed the maximum allowable noise contributions specified in Table 1, at those locations and during those periods indicated. The maximum allowable noise contributions apply under: a.) Meteorological condition of wind speeds up to 3ms-1 (measured at 10m	Table 10

- above ground level); or
- b.) Temperature inversion conditions up to 3°C per 100m and wind speeds up to 2ms-1 (measured at 10m above ground level)

2.11 <i>Operation Noise Impacts</i>	Operational	<p>For the purpose of assessment of noise contributions specified under condition 2.10 of this approval, noise from the project shall be:</p> <p>a.) Measured at the most affected point on or within the residential boundary to determine compliance with the LAeq (15min) and LAeq (night) noise limits outlined in condition 2.10 and;</p> <p>b.) Subject to the modification factors provided in Section 4 of the NSW Industrial Noise Policy (EPA, 2000) where applicable.</p> <p>Notwithstanding, should direct measurement of noise from the premises be impractical, the Proponent may employ an alternative noise assessment method deemed acceptable by the DECC (refer to Section 11 of NSW Industrial Noise Policy (EPA, 2000)). Details of such an alternative noise assessment method accepted by the DECC shall be submitted to the Director-General prior to the implementation of the assessment method.</p>	Table 10
2.12 <i>Soil and Water Impacts</i>	Operational	The Proponent shall ensure that all stormwater on the working platform is directed to a stormwater treatment unit/pollutant trap capable of removing gross pollutants, oil, grease, sediments, prior to it being discharged to Botany Bay	Tables 7 & 8
2.13 <i>Soil and Water Impacts</i>	Operational	The Proponent shall ensure that all oil and grease or other pollutants in the wastewater storage tank and the stormwater treatment unit is regularly collected and disposed of off-site at a waste management facility lawfully permitted to accept this waste.	Tables 7, 8 & 9
3.1 <i>Noise</i>	Operational	Within 90 days of commencement of	Table 10

Audit

operations associated with the project and during a period in which the project is operating under normal operating conditions, the Proponent shall undertake a noise audit to detail the noise emission performance of the facility. The audit shall meet the requirements of the DECC, and shall include, but not necessarily be limited to:

- a.) Noise monitoring, consistent with the guidelines provided in NSW Industrial Noise Policy (EPA, 2002) to assess compliance with the criteria specified in Table 1;
- b.) Methodologies for noise monitoring;
- c.) Location(s) of noise monitoring;
- d.) Frequency of noise monitoring;
- e.) Identification of monitoring sites at which pre- and post-project levels can be ascertained; and
- f.) Provision of details of any complaints received relating to noise generated by the project, and action taken to respond to those complaints

3.2 Noise audit

Operational

Within 28 days of conducting the noise audit referred to under condition 3.1, the Proponent shall provide the Director-General and DECC with a copy of the report. If the noise audit identified any non-compliance with the noise limits imposed under this approval, 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 Director-General.

Table 10

5.1 Community Information, Consultation and

General

Subject to confidentiality, the Proponent shall make all documents required under this approval available for public inspection on request.

Section 2.5 & Tables 7-12

<p>5.3 <i>Complaints Procedure</i></p>	<p>General</p>	<p>The Proponent shall record details of all complaints received through the means listed under condition 5.2 of the approval in an up-to-date Complaints Register. The Register shall 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.) Details of the complainant that were provided, or if no details 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; 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 shall be made available for inspection by the Director-General upon request.</p>	<p>Section 2.4 & Table 11</p>
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<p>6.3 <i>Operation Environmental Management Plan</i></p>	<p>Pre-operational</p>	<p>Prior to the commencement of operation of the project, the Proponent shall prepare and submit for the approval of the Director-General an Operation Environmental Management Plan to detail an environmental management framework, practices and procedures to be followed during the operation of the project. The Plan shall be consistent with the Department’s Guideline for the Preparation of Environmental Management Plans (DIPNR 2004), and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a.) A description of all activities to be undertaken on the site during operation of the project; b.) Statutory and other obligations that the Proponent is required to fulfil during operation, including all approvals, 	<p>This OEMP document</p> <p>Section 1.2</p> <p>Section 1.3</p>
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- consultation and agreements required from authorities and other stakeholders, and key legislation and policies;
- c.) Specific consideration of measures to address any requirements of Council and the DECC during operation Tables 7-12
 - d.) Details of how the environmental performance of operations will be monitored, and what actions will be taken to address identified adverse environmental impacts Tables 7-12
 - e.) A description of the roles and responsibilities for all relevant employees involved in the operation of the project and a program for how these employees will be trained in responsibilities identified in the plan; and Section 2.3 and 2.6
 - f.) Complaints handling procedures to be applied during operation of the project (conditions 5.2 and 5.3 of this approval) Section 2.4

<i>7.1 Incident Reporting</i>	General	The Proponent shall notify the Director-General of any incident with actual or potential significant off-site impacts on people or the biophysical environment within 12 hours of becoming aware of the incident. The Proponent shall provide written details of the incident to the Director-General within 24 hours of any incident or potential incident occurring. A further detailed report shall be prepared and submitted following investigations of the causes and identification of necessary additional preventative measures. The detailed report is to be submitted to the Director-General no later than 14 days after the incident or potential incident.	Section 2.8 & Table 12
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<i>SoC (EA Draft) – 7 – Contamination</i>	Operational	Leakages from pipes would be minimised by pressure pipe monitoring, with any required urgent corrective actions, and regular general	Tables 7 & 8
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inspections.

<i>SoC (EA Draft) – 11 – Water Quality</i>	Operational	The working platform and manifold areas would be bunded and would drain to the wastewater storage tank. All water collected in the manifold area would be assessed, treated and/or disposed of at an appropriately licensed liquid waste management facility. Water from the working platform would initially be assessed to determine whether it is unpolluted and suitable for release to Botany Bay – or requires disposal at an appropriately licensed liquid waste management facility.	Section 2.9 & Tables 7 & 8
<i>SoC (EA Draft) – 12 – Water Quality</i>	Operational	Features such as Fire Safety System testing and Critical Equipment checks prior to a ship discharge would be implemented to ensure that loading/unloading operations would only be undertaken when the infrastructure is working correctly	Section 2.9 & Tables 7 & 12
<i>SoC (EA Draft) – 13 – Water Quality</i>	Operational	An oil boom facility would be readily available to be deployed rapidly from the nearby Brotherson Dock and brought to BLB2 in the event of a spill.	Section 2.9 & Table 7
<i>SoC (EA Draft) – 14 – Water Quality</i>	Operational	Procedures for spills and leaks including notifications and clean ups would be developed.	Section 2.8 & 2.9
<i>SoC (EA Draft) – 15 – Water Quality</i>	Operational	All unloading/loading infrastructure and pipelines would be regularly inspected and maintained to minimise the potential of leaks and spills.	Table 7 & 8
<i>SoC (EA Draft) – 27 – Operations Manual</i>	Operational	Operation of the BLB2 will be carried out in accordance with the Operations Manual which includes operational environmental management procedures.	Section 1.1 & Section 2.3
<i>GPG – T2 – Greenhouse Gas Emissions</i>	Operational	Reduce greenhouse gas emissions from operational vehicles and equipment. DECC approved vapour emission controls are to be implemented.	Table 10

<i>GPG – H2 – Water Usage and Leaks</i>	Operational	Manage and monitor water usage and leaks. Pipelines are to be installed above-ground to easily detect any leaks visually. There are to be regular inspections and maintenance of pipelines.	Table 7 & 8
<i>GPG – EM6 – Hazardous Goods</i>	Operational	Avoid accidental contact with hazardous or poisonous goods. Hose connections are to be pressure tested prior to each use. Monitoring of all equipment to occur during transfer of hazardous goods. Joints and connections to be continually monitored for leaks. New gaskets would be used for each transfer.	Table 7 & 12
<i>GPG – HQ2 – Water Quality</i>	Operational	Manage water quality to protect the harbour and other water bodies. Storage of chemicals must be in appropriately bunded areas. Procedures are to be developed for handling/ use of chemicals and fuels near or over water.	Table 7 & 12
<i>GPG – M1 – Relationship with stakeholders</i>	General	Maintain good relationships with stakeholders and respond to any complaints. Identify and consult with stakeholders about environmental issues.	Table 11 & Section 2.4
<i>GPG – M2 – Environmental Framework</i>	General	Provide a framework for identifying, managing and minimising environmental impacts, and maximising environmental benefits.	This OEMP document
<i>GPG – M3 – Sustainability Education</i>	General	Educate developers, tenants and employees about ESD and how to improve sustainability.	Section 1.3

Appendix B – NSW Ports’ Environment Policy*

** this document is currently in draft form awaiting board approval*

NSW Ports manages two of Australia’s major seaports. In operating as a successful business, we will ensure we incorporate environmental considerations into all decision making. We will meet all our obligations and ensure continual improvement in our environmental performance by adopting the following principles:

Planning

- Providing adequate resources, equipment and training for employees at all levels to fulfil their responsibilities in relation to the environment and their work practices.
- Implementing systems, standards and processes to enable our activities to be carried out with regard to our environmental responsibilities.
- Developing measurable environmental objectives and targets, including prevention of pollution.
- Conducting regular reviews of the company’s environmental performance and implementing improvements as required.
- Integrating sustainable principles to improve our economic, environmental, social and cultural performance.
- Understanding future environmental risks and adapting to build capacity and ensure the longevity of the Ports’ infrastructure and operations.

Practices

- Including environmental considerations in our decision-making and business planning.
- Assessing and seeking to eliminate or minimise the environmental impacts of our activities on the natural environment and our local communities
- Identifying and reporting to senior management and the Board environmental hazards, near misses, incidents and impacts, and corrective and preventative actions taken.
- Ensuring compliance with all applicable environmental laws, regulations, policies and procedures.
- Striving to use resources efficiently, minimise waste, conserve biodiversity and prevent pollution.
- Monitoring our environmental performance.
- Maintaining emergency, fire protection and security systems and facilities to protect the environment.

People

- Appointing capable people with appropriate skills and experience to carry out their work in a manner that is compatible with sound environmental performance and this policy.
- Communicating with relevant stakeholders in relation to the company's environmental management activities.
- Working within our role as landlord to encourage and support our tenants and port users to increase their environmental and sustainability performance.
- Ensuring employees, contractors and visitors who work at or make use of company facilities are aware of their obligation to operate in a manner that fulfils the organisation's environmental obligations and requirements.