

Applicant details

Name	Geoff Millard	Company	Terminals Pty Limited		
Address	45 Friendship Road, Port Botany				
City/Town	Matrville	State	NSW	Postcode	2036
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Project details

Location of proposed development

9-11 Simblist road , Port Botany , Lot 622687

Description of proposed development

Proposed bitumen importing and dispatch facility including 9 tanks and associated pipe work, dockline, pumps, loading equipment, heating/cooling equipment and combustor for odour treatment.

The details on this form are the provisions and intentions for maximising the environmental sustainability of this development.

Name	Geoff Millard
Signature	Date 8 November 2010

	Item No	Purpose/criteria	Has this been addressed? (Yes, No, N/A)	How has it been addressed? Or, why has it not been addressed?	Provide details of supporting documentation/ reference material
Materials selection	R1	Reduce the quantity of new materials being used by reusing materials or by utilising recycled materials.	Yes	The new facility will use some of an existing bund structure that is already in place or approved, without having to build all new structure Soil / rock that is excavated for building and plant construction will be re-used in the formation of bund wall, where practical.	See site layout drawings, R.E.F
	R2	Encourage environmentally friendly production of materials.	Yes	New build requiring new steel for fabrication of tanks and pipe work – no alternative available	See site layout drawings
	R3	Specify materials that have minimal embodied energy and environmental impact.	Yes	Making use of locally sourced earthen / clay fill where necessary (lower embodied energy than new concrete construct)	
	R4	Consider the end of life of materials and the whole building, design for deconstruction.	Yes	Steel used in the construction of the tanks and pipelines is suitable for recycling at the end of life. All pipe work is suitable for recycling at end of life cycle	N/A

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W1	Minimise the generation of wastes.	Yes	<p>Storage tanks are designed with internal stripping lines and sumps to minimise waste generation. Docklines have pigging systems to completely empty them so as to prevent waste generation. Dockline will normally be left with residual product between ships reducing unnecessary waste generation. Top loading will be used in the truck fill bay to reduce spillage, leaks and waste by self draining systems.</p> <p>Odour & chemical emissions will be treated by a combustor or hot oil heaters plus vapour balanced lines between tanks to minimise waste/emissions during internal tank transfers, tank filling and aeration column venting.</p> <p>All water, essentially rain water, that is collected from the road tanker gantry, activities and tank farms is processed via API oil separator , which separates any residual hydrocarbons and clean water is discharged to Botany Bay. Any contaminated water is minimised in this way and stored prior to disposal in an authorized waste treatment facility. Where possible rain water will not contact any product/activities (eg gantry roof, separated emergency access road) and be discharged to stormwater systems to Botany Bay.</p> <p>The Site has an environmental management manual which is accredited to the ISO 14001 environmental management standard. The environmental manual will include all waste generating activities & their impacts plus control measures though its Environmental Aspects Register.</p>	Terminals Environmental Management Manual
W2	Facilitate recycling to reduce the amount of waste going to landfill.	Yes	Minimal wastes are generated in the facility.	

Waste management

W3	Ensure the safe storage and handling of hazardous wastes.	Yes	<p>Terminals Pty Ltd operates under an Environmental Management Manual which is accredited to ISO 14001 environmental standard and have a DECC (EPA) storage licence number 1048. In addition Terminals has approvals to store Dangerous Goods from WorkCover under DG 35/022169</p> <p>The existing EMS incorporating company environmental policy and health & safety policy plus these licenses ensure that due diligence and care is exercised in the storage and safe handling of product that is stored.</p> <p>Any waste water that is disposed off goes to an approved treatment facility, usually Transpacific Waste Services.</p>	Terminals Environmental and Health & Safety policies and Environmental Management Manual
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H1	Reduce consumption of potable water internally.	N/A	<p>Small amount of water (estimated less than 500 litres per day) is consumed with catalyst for the aeration columns and on other use during normal operating conditions in the proposed expansion. This will be reduced as much as practicable as it is considered possible to avoid using any catalyst for most processing.</p> <p>The only other time water is used is during cleaning of the storage tanks. This is expected to occur approx every 10 - 20 years.</p>	AS 1940, storage & handling of flammable & combustible liquids.
H2	Manage and monitor water usage and any leaks.	N/A	As above	
H3	Reduce the quantity of potable water used for landscape irrigation.	N/A	Rainwater collection will be used to irrigate for landscape or nature strips. Any plantings where required will use mulch to reduce water losses. The aim will be to reduce potable water usage including grey water uses.	
H4	Treat water on-site and reuse the treated water to reduce demand on the local potable water supply and the demand on the local infrastructure.	Yes	As above water treatment is confined to oil / water separator that ensures that water discharged to Botany Bay does not contain Hydrocarbons	

Water consumption

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E1	Reduce energy consumption and hence greenhouse gas emissions.	Yes	<p>The loading gantry and broadcast lighting in the Stage 5 area has photo electric cells connected that result in lighting only being active when natural lighting is low.</p> <p>The office building in the stage 5 area has timed duration lighting and as a result will turn off after approx 3 minutes.</p> <p>Pump systems are automatic on need basis only (ie not continuous) and optimised to use energy efficient motors to reduce energy consumption.</p> <p>Storage tanks will be insulated; large tanks will be maintained at a significant lower temperature and heat exchanger technology plus heating day tanks will be used to minimise energy consumption.</p> <p>Combustor and hot oil heaters will be designed with modern energy controls and GHG savings involved. Heat recovery exchangers using aeration column product will be considered and utilised where practicable and viable.</p>	
E2	Manage the use of energy to minimise consumption.	N/A	As above.	
E3	Source energy from renewable sources.	N/A	Electrical and gas energy are the source for these site operations.	
E4	Source energy from alternate energy sources and use less greenhouse	N/A	As above; no diesel usage envisaged.	

	intensive fuels (in particular limit diesel use).			
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Transportation	T1 Encourage the use of alternative modes of transport by employees, in order to reduce the amount of inefficient/individual car travel and therefore greenhouse gas emissions.	N/A	<p>The majority of employees work outside hours of applicable public transport and have to come into work for shipping at unusual hours.</p> <p>Port Botany is not particularly well serviced with public transport</p> <p>Automation is part of the design to minimise employee numbers.</p>	
	T2 Reduce greenhouse gas emissions from operational vehicles and equipment.	N/A	<p>For operations; only vehicles used on the existing site are two forklifts and two trucks, which operate on Diesel fuel. These could be used at the proposal site but this would be very infrequently.</p>	

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Indoor environment	IE1	Improve the quality of indoor air to protect the health of employees and enhance productivity.	N/A	One small new office and amenities building for 1-3 people will be constructed as part of this project. It will be built to modern air/lighting/acoustic/amenity quality standards.	
	IE2	Optimise daylighting and make best use of artificial lighting to assist eye health and productivity.	N/a	As above	
	IE3	Provide optimum acoustical environment for productivity and to prevent ear damage.	N/A	As Above	

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Emissions	EM1	Protect the ozone layer and reduce the potential for global warming.	Yes	<p>A new air conditioner, refrigerator or similar equipment are being installed as part of this project. The refrigerants will meet modern standards.</p> <p>Storage tanks have vapour balancing lines or connected to vapour emission control (combustion technology) system and tanker loading is also treated by combustion technology to reduce potential waste emissions to the atmosphere.</p> <p>GHG savings, like energy recovery and heat exchangers, will be considered during the detailed design stages.</p>	
	EM2	Limit the generation of air pollutants and ensure that they are emitted away from sensitive receptors.	Yes	<p>During the construction phase if high levels of dust is generated then appropriate water sprays will be used to minimise dust and particulate carry. Vehicles to park in designated areas during construction.</p> <p>The area is 1200 metres away from residential areas.</p> <p>Combustion technology and vapour balancing lines are used to limit waste emissions to atmosphere.</p>	Appendix H, Air Quality Assessment Report by GHD.
	EM3	Minimise odours.	Yes	Combustion technology and vapour balancing lines are used to limit waste emissions to atmosphere.	Appendix H, Air Quality Assessment Report by GHD.
	EM4	Minimise noise nuisance.	Yes	Noise from construction and operations have been considered in the assessment and comply with EPA regulations. Levels are not expected to be high and sensitive receptors are more than 1 km away.	Appendix I, Acoustic Impact Assessment Report by GHD.

EM5	Avoid light spill into night sky or neighbouring properties/areas.	N/A		
EM6	Avoid accidental contact with hazardous or poisonous goods.	Yes	Individual contractors will have set storage areas and a construction safety study will be conducted prior to the commencement of construction to address these aspects.	

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Water quality HQ1	Manage stormwater to reduce peak stormwater flows and protect water quality.	Yes	<p>Products are stored in approved storage tanks built to API650 construction code and housed in suitable bunded areas as required by the legislation, EPA guidelines and AS 1940.</p> <p>Storm water run off from driveways is directed through a first flush pit, designed for high rainfall events, before leaving the site to prevent initial poor water quality run off.</p> <p>Storm water is collected in the storage bund areas. Checked for contamination and if none then transferred to the API Oil / water separator pit whereupon clean water is transferred to Botany Bay. Samples are taken and this process is managed.</p> <p>Contaminated water is transferred to the waste water collection tanks and then disposed of to an EPA approved treatment facility.</p> <p>Spill kit is also provided in the truck loading bay, bunds and activity areas. Bitumen solidifies quickly.</p>	Environmental Management Manual.
HQ2	Manage water quality to protect the harbour and other water bodies.	Yes	<p>As Above</p> <p>Spill kits provided in truck loading area, bunds and activity areas. Bitumen solidifies quickly.</p> <p>Water quality is checked before discharge.</p>	
HQ3	Prevent damage from potential flood events and water table changes.	N/A	<p>Area is not prone to flooding and water table is 3 to 4 metres below this area.</p> <p>First flush pit has been designed for storm rainfall events.</p>	

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Land use	L1	Encourage the redevelopment of sites that have previously been developed and remediate contaminated land.	N/A	No contaminated land.	
	L2	Use landscaping to enhance biodiversity and conserve and create habitat for flora and fauna.	N/A	Landscaping is planned for the Simblist Road frontage, consistent with SPC development criteria.	
	L3	Enhance visual amenity.	N/A	As above Final storage tanks will blend in with existing storage tanks & infrastructure.	
	L4	Avoid impact on identified heritage items.	N/A	There are no identified heritage areas on the proposed construction area.	

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M1	Maintain good relationships with stakeholders and respond to any complaints.	Yes	<p>Terminals Pty Ltd is a member of local community/industrial neighbour groups of Port Botany Neighbourhood Liaison Group. Consultation with this group is planned for the next convenient meeting on 17th May 2011.</p> <p>Environment Management Manual includes a public complaints procedure.</p>	R.E.F
M2	Provide a framework for identifying, managing and minimising environmental impacts, and maximising environmental benefits.	Yes	<p>Terminals Pty Ltd has a comprehensive Environmental Management Manual in place which is available for perusal. This will be updated to include construction & operation activities for this project.</p> <p>Terminals Pty Ltd is accredited to the ISO14001 Environmental management standard</p> <p>Terminals Pty Ltd has all applicable Dangerous Goods, warehouse and DECC (EPA) licenses</p>	<p>Environmental Management Manual</p> <p>Cert No 0402898/B</p> <p>EPA L 1048, DG 35/022169</p>
M3	Educate developers, tenants and employees about ESD and how to improve sustainability.	Yes	<p>Terminals Pty Ltd participates in the sustainable Ports program that has recently been initiated by SPC and supports the initiatives & programs that will flow from it.</p> <p>One small office /amenities building is part of proposal – therefore building guide and training for occupants will be used/planned.</p>	

Environmental management