Terminals Pty Ltd

Melbourne Bulk Liquid Storage Terminal

Environmental Improvement Plan No 4

2013 to 2016

The Environment Improvement Plan has been developed by Terminals West Melbourne in consultation with the Terminals Coode Island Community Consultative Committee (CICCC). Terminals Pty Ltd wishes to acknowledge those contributions, and undertakes to use its best endeavours to complete the EIP actions contained within.

Signed  Date 25 March 2013

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1. Introduction

This Environmental Improvement Plan (EIP) is the fourth EIP for Terminals Pty Ltd (Terminals) West Melbourne bulk liquid storage facility. The first EIP was in response to EPA licence conditions. Since that EIP was developed Terminals has achieved accredited licence status for the Coode Island facility. One of the cornerstones of an accredited licence is to have a current EIP, therefore the requirement to replace the current EIP which ended at end of 2013. This EIP has again been developed by Terminals in consultation with the Coode Island Community Consultative Committee.

This EIP will continue the work commenced in the first EIP of improving the West Side Facility through the long term upgrading of the sites:

- Upgrading the environmental systems (air, soil and groundwater);
- Upgrading the existing storage and handling equipment;
- Removing redundant equipment and pipelines;
- Segregating storm and waste water streams;
- Protection of ground water.

The upgrading of the sites which formed the basis of the first 3 EIPs is basically complete so the next four years will be mostly consolidation of those upgrades and general improvements.

Progress in achieving the objectives and targets outlined in the EIP will be discussed with CICCC at six monthly intervals.

The EIP will be subject to complete review and reassessment in last half of 2016. The EIP review process will include an assessment of emission and waste production standards for the industry and any new or emerging technologies that will minimise or eliminate waste generation. The ongoing assessment of waste generation and waste management initiatives is currently incorporated into the site Waste Management Plan (WMP) which is also subject to 2 yearly review.

However, if new or emerging technologies are identified in the period between EIP or WMP reviews, that will minimise or eliminate waste generation at the Terminals West Melbourne facility, they will be assessed, and, if appropriate, implemented.

Terminals East Side sites were remediated and handed back to PoMC in January 2006. Those sites are now leased by DP World (formerly P&O Ports).

1.1 EIP Objective

With the discontinuation of the existing eastern sites, Terminals' operation is now consolidated to the west side of Mackenzie Road. Terminals will continue to handle the same chemicals it stored after the closure of the East Side in January 2006 except for the Acrylonitrile and Toluene Diisocyante (discontinued in bulk) and the return of Benzene via Pygas.

Terminals has been undertaking a staged multi-million dollar investment over the period from 2002 to 2012 but that work has basically been complete except for the bund walls and clay liner at Plant B.

This EIP is more focused on minimising environmental impacts and energy/resource savings. Also the safety upgrades from the latest Major Hazard Facility licence renewal has been incorporated into the targets.

The facilities and operations will still comply with all the requirements of the Environment Protection Authority (EPA), Worksafe and the Metropolitan Fire Brigade (MFB) as well as ISO Standards 9001 and 14001.

This EIP (No 4) will cover four years as previously to the end of 2016.

1.2 Terminals Pty Ltd

Terminals is a wholly owned subsidiary of the ANZ Terminals Pty Ltd. It provides terminaling services to its clients at four operating locations throughout Australia. These sites are located at West Melbourne in Melbourne, Corio in Geelong, Port Botany in Sydney and Osborne in South Australia.

An associated company, Bulk Storage Terminals Limited, is also the leading terminal operator in New Zealand with facilities in Auckland, Wellington, New Plymouth and Mount Maunganui.

In addition to operating its own sites, Terminals has extensive experience in managing and operating cryogenic liquefied petroleum gas storing facilities on behalf of Orica at Port Botany, adjacent to the Botany site.

Total capacity owned and operated by Terminals in Australia is 210,000 m^3. Terminals' commitment to the industry it serves began in Victoria in 1961 with the construction of its first facility in West Melbourne. Since then it has provided continuous services to its clients in a professional manner.

In the past twenty years, Terminals has improved its operating practices and procedures to rival world standards. This has been principally through the recruitment of storage and process engineering expertise from the chemical and oil industry, and the use of highly specialised consultants in risk management, loss prevention and occupational health and safety. An extensive capital works program has been undertaken on all sites to address the issues of the Major Hazards Facilities legislation and addresses the lessons learned from the fire in the Site A Coode Island facility in 1991.

2. Existing Facility – Recent Improvements

The West Melbourne Bulk Liquids Storage Facility consists of two terminals commonly referred to as Plant B (54-62 Mackenzie Road) and Plant C (70-78 Mackenzie Road). The terminals were initially developed as two independently owned and operated facilities. Site C was acquired by Terminals from Powell Duffryn in 1992 and the operations of the facilities integrated under a common management and operating workforce. The combined facility comprises a total of 72 tanks generally divided into the two sites on the west side of Mackenzie Road. Approximately 30 tanks are used for the storage of flammable liquids. These are dispersed across both sites.

In excess of $30 million has been invested since the fire in 1991 to upgrade the sites. Features of this expenditure include:

- A fire system which exceeds regulatory requirements;
- Nitrogen blanketing to all flammable liquids (where suitable);
- Sealed loading of toxic products (TDI, PO, ACN, PHENOL);
- CCTV control security access systems;
- Dedicated tanks for high throughput products or the more hazardous products;
- Redeveloped Benzene handling facilities;
- Ground water control systems;
- Upgraded spill control systems.

In the past 10 years, the major upgrade has been in the replacement of the Vapour Emission Control (VEC) systems to improve emissions and odour performance. This investment has totalled in excess of $20 million and has included:

Two new combustors to replace the carbon beds;

New stainless steel vapour collection systems;

Control valves on top of tanks to control tank pressures;

Connection of all flammable storage tanks to the new Vapour Emission Control System which includes Acrylates and Pygas;

High pressure alarms to control tank pressures during ship unloading & pigging for all tanks connected to VECS;

Sealed truck loading of all products with vapours being treated by new VECS;

Acrylate tanks upgraded with new fill and draw off pipe work, new foundations, impermeable liner under floor and independent high high level alarms;

New hard piped exchange areas at Plant C and Plant B;

All flammable tanks upgraded with new fill & draw off pipe work, internal waste minimisation pipe work, new foundations, impermeable liner under floor;

Segregation of site stormwater at truck fills;

Roofs over all truck loading gantries, pump bays, and exchange areas;

Site wide emergency alarm alerting system;

Back up power supply for new VECS and emergency equipment;

The upgrading of the sites has been complex, as it is a hazardous facility with ongoing commitments to customers. Despite the difficulties, the work was completed with minimal disruption to customers and no serious incidents.

3. Improvement Description

Broad Description of the Works

3.1.1 Introduction

The improvements described in this section are to be completed by 31 December 2016. A summary of target dates is listed in Appendix 1.

This EIP is to build on the work in the previous EIP's in particular energy saving and waste minimisation.

3.1.2 Tank Overflow/Fire

There are a number of site emergency incidents which can cause an environmental impact off site. As part of Terminals Safety Case we have identified these major incidents and concluded that a tank overflow followed by a fire has the greatest offsite environmental effect. The longer an overflow is undetected the greater the size of the spill and the potential fire afterwards. Therefore the following actions are designed to limit the size of the spill by providing early warning.

- Combustible gas detectors in two internal bunds and Plant B;
- Linking tank high level alarms to radios to specific tank warning;

It has also been highlighted in the safety case that due to the layout of the Plant B site it is not feasible to fight a bund fire with portable equipment especially in the central area. Therefore we will be doing internal bund modifications to minimize the surface area of a spill and installing fixed firefighting systems for a bund fire scenario in the central bunds at Plant B.

3.1.3 Waste Minimisation

The burning of hydrocarbon wastes (flammable & combustible) in the combustors has been successful with amount of hazardous waste sent offsite for treatment has decreased from just under 1000 tonnes/year to less than 500 tonnes/year with no major increase in gas usage. This has been achieved by mixing flammable wastes with other waste streams to give a more constant feed stream.

It is now proposed to increase the range of materials treated onsite to include phenol washings. This will decrease waste sent offsite by at least another 40 tonnes/year. The only wastes sent off site for treatment will now be wastes containing inorganic materials like potassium hydroxide

3.1.4 Water Reuse and Reduction

The major water uses on site are the testing of fire water deluges and the hydrostatic testing of tanks as part of their 10 year inspection regime. A number of steps have been taken to reduce water usage by:

- reducing frequency of testing of deluges.
- testing of foam to gantries with water instead of foam.
- installing rainwater tanks on roofed areas for cooling and flushing toilets etc.

Now that the majority of the tanks have been lifted, floors inspected and repaired (where required), Terminals will investigate increasing the time between the internal inspections from 10 yrs to 15 yrs or longer. This will lead to a decrease in water use and waste generation due to tanks being cleaned less often.

Terminals will also investigate using one of the fire water tanks as a reservoir for storing collected rain water which can then be recycled for deluge testing. This will mean one of the major water uses on site will be greatly reduced.

3.1.5 Energy Saving

One of the major energy users on site is the combustors so we are looking at ways to minimise their gas usage.

Due to their requirement to be always on they are a large natural gas user even when there is no load like at night when the site is closed and tanks are cooling down and in breathing. The proposal is to have the combustors operate at a lower temperature at night so gas usage is minimised. This low fire setting will then allow the combustors to restart easily in the morning or if there is a sudden temperature increase causing tanks to out breathe.

Another high gas usage scenario is when treating vapours from truck filling operations. Large amounts of dilution air are added to the vapours to ensure the stream to the combustor is below 25% of the Lower Explosive Limit. Also the combustor has separate combustion air fan which adds excess air to maintain clean burning. All this air has to be heated to 750 ^{o}C so any minimising of this air will save gas usage. The proposal is to ramp down the combustion air fan when the dilution (truckfill) air fan ramps up so there is only enough excess air to maintain clean burning.

Finally we are also looking at minimising our carbon foot print will investigate the viability of the installing solar panels onsite. Terminals will install the solar panels if economically viable.

3.1.6 Groundwater Protection

The site will continue its program of six monthly groundwater monitoring and annual assessment reports to meet the groundwater plan requirements. This will give Terminals early warning of any new groundwater impacts.

The sparge curtain effectiveness will be evaluated and modifications made if required to prevent any contamination migration to the Maribyrnong River.

A clay bund liner will also be installed at Plant B as currently installed in Plant C. This will prevent any spills in the bunded areas entering the groundwater under the site by providing an impermeable membrane on the floor and walls of the bund.

The existing program of 10 yearly internal and external inspections of tanks will be maintained to ensure there is no corrosion of tanks which could lead to possible soil contamination.

3.1.7 Annual Report to Community

An Annual report to the community will be prepared at the end of each calendar year. Copies will be placed on the CICCC Web site.

The report will look at Terminals performance over the previous 12 months in the following areas:

- Community Complaints
- EPA, WorkSafe and Company Audits
- Major Changes to Site Plant, Equipment and Controls
- Safety and Environmental Performance
- Safety and Environmental Incidents
- EPA Waste Discharges
- Waste Management Performance
- Energy Efficiency and Greenhouse Gases
- Ground Water Management Plan
- Environment Improvement Plan (EIP) Status

3.1.8 Safety Case

As part of our safety case renewal there were a number of improvements identified to improve the safety of the site which will lead to improved environmental outcomes by hopefully preventing a major incident. They are listed in Appendix 1

3.2 Other Issues

3.2.1 Community Consultation

Terminals is committed to local community and other stakeholder consultation through various arrangements including CICCC, Maribyrnong Council etc. and will facilitate the involvement of the community into the future. Progress towards goals, targets and objectives will be shared regularly with the community.

This will be done by producing an Improvement Action Report that will be updated regularly by Terminals. The report will be discussed biannually at community meetings.

The community will be given information relevant to the particular EIP item. This may be subject to any "commercial-in-confidence" restrictions deemed by Terminals and Freedom of Information procedures for release of EPA documents. The community representatives also provide another conduit for advising their constituents about information discussed at the CICCC, and bringing back to CICCC issues raised with them by community members. This will assist keeping the local and broader community abreast of proposed developments on the site, including enhanced safety measures and environmental controls.

Ongoing consultation with the community will also provide opportunity for positive input as well as providing a forum to raise concerns. Terminals will carefully consider all inputs, and will accommodate these wherever practicable. Where the inputs are not accommodated in full, Terminals will provide explanations and written reasons for their decision.

3.2.2 Landscape Management

The existing landscaped areas will be retained as far as practical on the west side sites. New fences will be black PVC, coated or painted enamel chain wire with black coated posts.

3.2.3 Emergency Procedures

Notwithstanding EPA related matters, the Metropolitan Fire and Brigade (MFB) is the principal emergency response group likely to be involved in any events that occur on site. Considering the nature of the materials stored and managed within the site it is likely that the MFB would attend any significant event that occurred.

The MFB will be consulted at all relevant stages during the design of the upgrades to ensure that all active and passive fire systems, product handling and tank storage control systems are adequate. The MFB will be kept aware of changes even if temporary.

The significant improvement in emergency procedures will be realised by the provision of new and revised product handling systems and equipment as the upgrades are implemented. This will ensure that the inherent safety of the terminal is improved reducing the likelihood of any incident.

3.2.4 Health, Safety & Environment Management

The existing health, safety and environment management plans will also encompass the upgraded facility. The new features and systems incorporated into the terminal would be implemented and incorporated into the systems that already exist.

Terminals currently have ISO 14001 Environmental management systems accreditation for their Melbourne, Geelong and Botany facilities.

All work (including Hot Work and Confined Space Work) will be in accordance with the Safety Management Manual and will conform to MHF requirements.

3.2.5 Security

With the adoption of the new terminal arrangement, the overall number of operational areas is reduced from four to two. This reduction, combined with vehicular traffic accessing Terminals' Bulk Liquid Storage Facility and other terminal operators on only the west side of Mackenzie Road and the reduced level of pedestrian traffic, will allow improved security arrangements to be made.

The existing security system has been recently upgraded with installation of CCTV and motion detection surveillance systems on all external fences with remote monitoring. Access to the site is still controlled by automatic truck and pedestrian gates with full fencing around perimeter.

Wharf security would remain as is, under the control of the PoMC.

3.2.6 Noise

The existing terminal operations are not generally considered to be a significant noise source, particularly when the surrounding and unrelated heavy industrial uses are taken into consideration. The predominant noise sources within the current facility are generated primarily by truck movements within the site and operating equipment such as pumps, fans, etc.

It is anticipated that there will be no overall increase in noise generation as a result of the upgrades. It is noted that even with a change to 24 hour operations, the nature of the surrounding industrial uses and the location of the site being remote from any sensitive uses, it is unlikely that noise emission would be an issue. Therefore no reduction targets are proposed.

Noting the above comments, any noise considerations would be incorporated into a detailed design and be able to comply with relevant Environment Protection Authority, (EPA), State Environment Protection Policy (SEPP), N-1 and N-2 noise levels which apply to such facilities operating over a 24 hour period.

4. Management and Operations

4.1 Philosophy and Procedures

Terminals is a major operator within the Australian petrochemical industry, providing storage and handling services for bulk liquids including chemicals, petroleum, solvents, vegetable oils, tallow and liquefied gas. The current philosophy of providing a high standard, cost effective service to clients with a commitment to health, safety and environmental issues is applied to the Geelong facility.

Terminals will comply with all relevant State environment protection policies, waste management policies, environmental regulations and waste discharge licence conditions.

The Terminals Environment Policy is reproduced below:

It is the policy of Terminals to operate our facilities in a manner that will protect the environment.

This policy is founded on:-

- *Identifying and managing the environmental risks associated with our business.*
- *Providing training and promoting environmental awareness and responsibility amongst all employees.*
- *The efficient use of resources and minimisation of waste or loss.*
- *Periodic environmental assessments of our facilities, from which ongoing improvement programs will be implemented.*
- *Compliance with regulatory requirements is the minimum acceptable level of performance.*

4.2 Current Operations

4.2.1 Product Stewardship

Terminals regards one of its prime contractual roles is to ensure the quality and quantity of our clients products is maintained as it passes through the terminal.

To this end the terminal has been appropriately engineered to operate as a multi-product import/export terminal.

4.2.2 EPA Accredited Licence

In 2004, EPA granted Terminals West Melbourne site an accredited EPA licence in recognition of the significant environmental improvements that have occurred in the last few years.

An accredited licence gives the licence holder a slight reduction in annual fees and the ability to do minor works on site without the need to obtain a works approval.

The three major requirements for an accredited licence are:

- An environmental management preferably to an environmental standard such as ISO 14001;
- An EPA approved external auditing program;
- A community endorsed EIP (such as this one).

4.2.3 Major Hazard Facility Licence

In 2000, Victoria introduced new legislation titled the Occupational Health and Safety (Major Hazard Facilities) Regulations 2000. This legislation requires facilities storing certain materials (flammable, explosive or toxic substances called Schedule 1 materials) above specified quantities to be registered as Major Hazard Facilities (MHF) and to submit a Safety Case to the Government to obtain a MHF licence. This facility is one of 48 sites that are currently designated MHFs in Victoria.

In July 2002 Terminals West Melbourne obtained a five-year licence to operate as an MHF.

In July 2007 Terminals West Melbourne obtained another five-year licence to continue operating as an MHF until at least 2012.

In July 2012 Terminals West Melbourne obtained another five-year licence to continue operating as an MHF until at least 2017

The MHF regulations require modifications to the MHF to be reviewed, revised and submitted to Workcover before commissioning any change.

4.2.4 Quality Assurance

Quality certification to ISO 9001 through Lloyd's Register for all of Terminals facilities has been achieved. In addition, ISO 14001 accreditation for the environmental management systems has been achieved at Melbourne, Botany and Geelong. It acknowledges a high standard of consistent operations and safety in supplying our services. The following key safety and environment areas are included:

Occupational Health and Safety;

Operating Procedures;

Training;

Modification Form changes;

Incident Reporting and Investigation;

Contractor and Driver Inductions;

Licence/Regulations/Standards Control;

Maintenance;

Contract Review;

Purchasing.

4.2.5 Responsible Care

Terminals has been a long standing associate member of the Plastics and Chemical Industry Association (PACIA). As such, it has been an active participant in the Responsible Care program and has supported this industry movement for improved performance through this program. Terminals' West Melbourne facility have achieved 100% compliance with the responsible care guidelines.

Terminals also supported the Community Right to Know Code of Practice, by active participation in the chemical industry "Open Door" program. Safety and operating statistics have been provided to PACIA for the preparation of annual industry statistics on safety performance.

To ensure the long term maintenance of high standards, that the community is adequately informed about the facility and its operations and to provide an opportunity for the community to express any concerns, Terminals will continue to support the Coode Island Consultative Committee. Terminals takes a significant role in the committee and provides all relevant operating statistics and details of incident occurrences, injuries etc. as requested.

4.2.6 Maintenance

Terminals operators are multi-skilled. Consequently they undertake routine maintenance inspections to meet the following objectives:

Regulatory requirements;

Achieve maximum serviceable life from the company's assets;

Maintain an acceptable level of customer service through the minimisation of plant and equipment down-time;

Maintain plant and equipment in such a way that the risk of personnel injury is minimised;

Standardise the maintenance system throughout the company's terminals;

Develop and maintain a reliable system for the recording of maintenance work.

These maintenance procedures and checks are documented and form part of the ISO9001 Quality System.

4.3 Health, Safety and Environment Management

4.3.1 Overview

Health, safety and environmental (HS&E) performance is Terminals' highest priority.

Terminals are committed to ensuring the health and safety of its staff and the community, to preserve the environment and to protect property and materials stored.

Performance in these areas is achieved through a comprehensive and systematic management system, called Process Safety Management, to ensure barriers are in place, in use, demonstrable and effective to prevent significant incidents, and minimise consequences from the inherent hazards of the business.

4.3.2 Introduction

Terminals is the largest independent bulk liquid chemical storage and handling company in Australia, providing product handling and storage services for over 90 companies in as many different chemicals for many diverse industries.

From a HS&E perspective, the range of chemicals handled differs greatly and involves the following types of hazards:

Flammable;

Poisonous;

Toxic;

Known and suspected human carcinogens;

Corrosive;

Polymerisable;

Combustible;

Oxidising agent;

Highly volatile.

Elevated temperature

4.3.3 Safety, Health and Environment Management

It is the corporate objective of Terminals to be the acknowledged leader within its industry in the quality of services provided and in its safety, health and environmental performance.

In order to operate safely and effectively, the company has a defined management structure, which implements policies set by senior management. These policies are detailed in comprehensive management systems that comprise manuals, programs, procedures and plans on activities such as Occupational Health and Safety, Operations, Maintenance, Engineering, Training, Quality, Safety Audits, Environmental Management and Emergency Procedures.

Any environmental incidents are logged in a computer based Environmental Incidents Register which includes a requirement for "root cause" analysis and the implementation of corrective actions. All community complaints relating to environmental matters are also logged in the Environmental Incidents Register.

4.3.4 Safety Management Systems

Process Safety Management is a systematic approach to the identification, understanding, assessment and ultimately control of process hazards. The major focus is to minimise, if not prevent, incidents and accidents.

The system is based on the "Technical Management of Chemical Process Safety" developed by the centre for Chemical Process Safety of the American Institute of Chemical Engineers.

4.3.5 Environment Management Plan

An Environment Management Manual (EMM) has been developed for Terminals' facilities in Australia. Terminals has ISO 14001 accreditation for its Melbourne, Geelong and Port Botany facilities. Its purpose is to cover the requirements for environmental protection, and management of the operations of Terminals in relation to routine on-site and off-site activities. This plan will continue to be applied to the redeveloped facility and will include the setting of emission and environmental goals and the ongoing audit of the site environmental and operating systems.

4.3.6 Safety Performance

The "continued improvement" philosophy is entrenched in the Process Safety Management Model. It is essential to Terminals' business success to monitor parameters for performance, set objectives then develop and implement plans to achieve nominated targets.

Action plans developed from incidents and audits are monitored to completion using a computer based management follow up system.

Terminals encourages investigation of near misses as well as minor and significant incidents. This "root cause" analysis ensures the greater number of lessons can be learned and improvements made. Severity and frequency of incidents are reduced using this method.

An active Occupational Hygiene and Health Program is in place. Annual medical checks are conducted on all operating personnel. Noise, and asbestos assessments, have been independently carried out by external professional occupational hygienists, and all recommendations have been implemented.

4.3.7 Environmental Monitoring

Terminals will continue to assess environmental performance through the conduct of environmental monitoring programmes. These include:

- Stormwater – Bi-monthly samples will be collected to determine suspended solids, biological oxygen demand, toxicity, dissolved oxygen, pH and total organic carbon (TOC) concentrations;
- Groundwater – all wells will be gauged for separate phase and down gradient wells will also be monitored for contamination on an six monthly basis;
- Combustor - The concentrations and rates of emission of volatile organic carbon (VOC), carbon monoxide and oxides of nitrogen will be determined on a regular basis as determined by annual monitoring program.
- Leak detection program for all volatile chemicals to monitor all equipment to identify any unnoticeable leaks for timely repair thus minimising fugitive emissions from the site.

All environmental monitoring is conducted by National Association of Testing Authorities (NATA) accredited laboratories, in accordance with Victorian Government requirements except for leak detection which is done by operators with hand held PID.

4.3.8 Audit Programme

Terminals will continue to examine methods of improving environmental performance through the conduct of an audit programme. Specifically, this will include:

- Compliance Audit
  - Three monthly (Terminals, Geelong Operations Manager);
- EMS Audit
  - Nine monthly (Lloyds Register Quality Assurance)
  - Twelve monthly (Terminals National Safety and Environment Manager).
  - 2 yearly by EPA certified Environmental Auditor.

Appendix 1

Summary of Targets

SUMMARY OF TARGETS 2013 - 2016

Element	Target Objective	Due
Tank Overflow /Fire	- Implement combustible gas detectors for two internal bunds at Plant B. - Specific tank LAHs linked to radios. - Install remote central bund firefighting systems and bund mods.	4th Qtr/2015 1st Qtr/2013 4th Qtr/2016
Waste Minimisation	- Commence burning liquid phenol waste in combustor	3rd Qtr 2013
Water Reuse and Reduction	- Investigate using one of firewater tanks as reservoir for water harvesting, eg. deluge testing - Increase ten year internal inspections to 15-20 years; dependent on case by case re tank condition; non corrosive product; tank liners.	3rd Qtr 2013 4th Qtr 2014
Energy Saving	- Implement low fire on combustor during night time duty while no transfers. - Investigate modifying combustion air feed to combustor so that it ramps down as dilute ramps up. - Investigate and report to CICCC on installing solar panels re gantry & pump bay roofs.	2nd Qtr 2013 4th Qtr 2013 4th Qtr 2013
Groundwater Protection	- Continue 6 monthly groundwater monitoring & annual assessment reports to meet Groundwater Management Plan - Investigate air sparge curtain effectiveness & modify, if necessary. - Install clay bund liner at Plant B	3rd Qtr 2013 3rd Qtr 2013 4th Qtr 2015
Annual Report to Community	- Prepare annual report to the community outlining environmental and safety performance for previous financial year	Each year 1st Qtr

Element	Target Objective	Due
Safety Case	- Protective shield for phenol loading gantry	2nd Qtr 2013
	- Combustor LEL sample low flow alarm	4th Qtr 2013
	- Truck loading Scully bypass flashing light	4th Qtr 2013
	- High LEL at carbon beds will bypass carbon beds	4th Qtr 2013
	- Vacuum valve on Pygas vapour return line from ship loading	4th Qtr 2013
	- Tank bund for portable slops tank at Plant C	4th Qtr 2013
	- High risk product individual High level alarm to radios	4th Qtr 2013
	- Tank to tank transfer high level alarm shutdown	4th Qtr 2013
	- Install gas detectors (four) for two Plant B internal tank bunds	4th Qtr 2014
	- Upgrade bund penetrations at Plant B & C	4th Qtr 2015
	- Implement fire fighting strategy for central bund fire at Plant B including internal bunds, overflow devices & foam pourers	4th Qtr 2016
	- 41 Procedural/administrative improvements in Safety Case	4th Qtr 2013