



terminals pty. ltd.

## **MELBOURNE SITE**

## **ANNUAL COMMUNITY**

## **REPORT FOR 2006**

**Geoff Millard - Terminals**

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## 1. SUMMARY

This annual report covers the Terminals' Melbourne operation at West Melbourne for the 2006 calendar year.

It was a good year both on and off-site with no lost time injuries and no major incidents on-site and no community complaints about odour concerns off-site.

Work continued on upgrading the west side facilities now that the east side facility was handed back to Port of Melbourne Corporation in January.

There were only one environmental incident and no waste discharge infringements.

As a result of continued efforts being made since 2002 to reduce volatile organic compound emissions, 2006 again saw no air emission non-compliances.

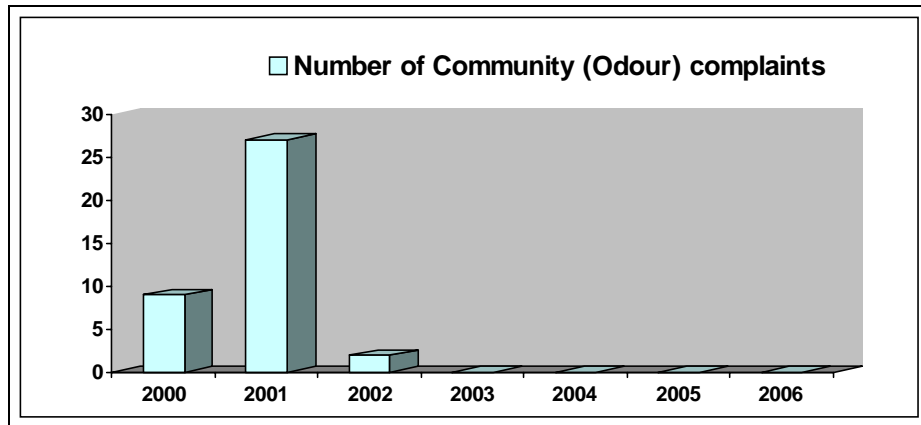
Greenhouse Gas emissions have been reduced by another 8% on 2006 following the same decrease in 2005.

The second Environmental Improvement Plan (EIP) is half way through its 4 year life span with 35 of 62 improvements now completed.

With the major work now completed including closure and remediation of the East Side the emphasis this year has been on continuing the program of environmental, safety and technological improvements.

## 2. COMMUNITY CONCERNS

There were no community complaints during 2006. Historically community complaints have been associated with odours. A graph of community (odours) complaints is detailed below.



Note: These complaints represent those that could be verified as emanating from, or caused by, Terminals. For instance, in 2001 there were a further 49 complaints but no odour sources could be found at Terminals or found caused by external operation.

The reduction in odour complaints is due to improved methodologies in treating acrylate chemicals. The major improvement has been progressively connecting all tanks to the combustor VEC from December 2002 and general environmental awareness.

### 3. EPA, WORKSAFE AND COMPANY AUDITS

EPA accredited licence audit in 2006 was carried out over three days in September 2006. This was the third audit of this type under our new accredited EPA licence. There were 15 audit recommendations from the 2006 report ranging from updating procedures to installing roofs over pump bays. The auditor reported an improved performance to completing recommendations, compared to previous audits.

The oversight program for Major Hazards Facility was conducted by WorkSafe. The main focus has been the second round MHF licensing process covering a twenty-four month period, starting from January 2006, where the existing safety Case is being completely reviewed and revised. WorkSafe visits included presentation of WorkSafe History Report; attendance at two internal workshops for this second round MHF licensing process and a carcinogenic licence audit for benzene (pygas) resulting in a carcinogenic licence being issued for benzene. In addition one WorkSafe Improvement Notice was issued for using a non flameproof motor in a hazardous area without a hot work permit. This was rectified and hot work procedures were highlighted to all operations people.

Lloyds Register audited the Melbourne site once during 2006 with the planned second audit rescheduled for March 2007. These were routine audits and resulted in no major or minor non-compliances and no follow-up issues were raised for the Melbourne site.

The internal audit program for 2006 totalled 17 audits of the Melbourne site including audits of operations, maintenance, training, incident reporting, work permits and environmental management systems as well as a management review.

#### 4. MAJOR CHANGES TO SITE PLANT, EQUIPMENT AND CONTROLS

The Melbourne site in 2006 continued with the upgrade program from the last few years.

The pace has slowed down compared to previous years as upgrade work at Plant C is basically complete and the majority of infrastructure required to upgrade Plant B is now in place. The plan now is to slowly upgrade the remaining tanks at Plant B and commission the new loading system.

##### **Some of the major achievements include:**

- installing two new semi- pressurised tanks for storing and exporting Pyrolysis Gasoline;
- installing waste minimisation pipe work and under tank liners for three tanks at Plant B and one tank at Plant C;
- installing emergency lighting for Plant B;
- installing truck loading and pipe support infrastructure at Plant B;
- new hard piped exchange pit at Plant B;
- all flammable storage tanks now vented to the combustor;
- phenol tank vented to the combustor;
- installing clay liner in all bunds at Plant C;
- combustor temperature set point has been lowered to 750 C.

## 5. SAFETY AND ENVIRONMENTAL PERFORMANCE

### 5.1 SAFETY INCIDENTS

At Melbourne in 2006 there were no lost time injuries and three work injuries.

One WorkSafe Improvement Notice was issued for using a non flameproof motor in a hazardous area without a hot work permit.

There were no Reportable Site Incidents involving safety and there were no Prohibition/Penalty Infringement Notice/Prosecutions in 2006.

There were no Major Hazard incidents for 2006.

There were 28 internal incident reports raised during 2006 and were broken up into the following categories:

Type:	Dangerous/Unusual/Near Misses	= 32%
	Environmental	= 14%
	Critical Control Measures	= 11%
	Customer/Complaints	= 25%
	Quality System	= 9%
	Other	= 9%

There were one severity 3 incident raised in 2006:

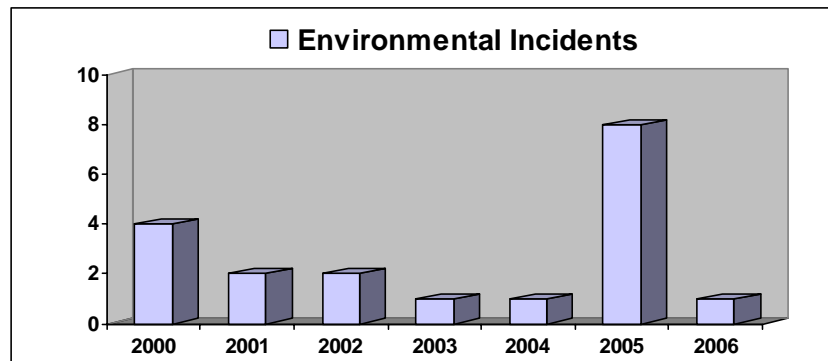
- groundwater monitoring result above criteria due to air sparging system being offline.

## 5.2 ENVIRONMENTAL INCIDENTS

Historical trend of environmental incidents is detailed below. These are defined as spills greater than 200ltrs, EPA reportable incidents (ie cause or likely to cause an offsite discharge or odour), licence breaches and EPA infringement actions. But these incidents do not include odour complaints as reported previously, nor benzene emissions exceeding historical 51g/min licence condition, which regularly occurred until the thermal oxidiser (combustor) vapour emission control system was commissioned in November 2002 for benzene treatment.

In 2006; there was one environmental incident:-

- During an external environmental audit, it was found that the Plant B offsite down gradient monitoring wells showed benzene levels above the ANZECC guidelines at a routine 6 monthly sampling event in 2005 and the Plant B offsite air sparging system was found to be offline at various occasions in 2005. This was reported to the EPA by the environmental auditor in 2006. The next sampling round was expedited and showed benzene levels had returned to below ANZECC guidelines. An air sparging fault/offline alarm was connected to the Citect operations control centre to ensure any further offline occasions could be responded to and rectified promptly.



There were no non compliances to the waste water discharge criteria. This was a significant improvement to the seven incidents in 2005 that related to waste water discharge criteria.



## 6. EPA WASTE DISCHARGES

### 6.1 AIR EMISSIONS

Tabulated below shows a comparison of the estimated air emissions from the various discharge points with the emission limits specified in revised 2004 EPA licence, Table 1. All emissions in 2006 are below the licence mass emission limits.

Waste	EPA Emission Limits (2004)		Estimated Emissions (Kgpa)						
	Total Mass Rate (g/min)	Total Annual Mass Rate (Kg/annum)	2000-2001	2001-2002	2002-2003	2003-2004	2004	2005	2006
Acrylonitrile	2	350	235	132	122	4	2	0	0
Benzene	36	1500	6970	4000	1478	151	138	16	4
Butyl Acrylate	11	65	225	24	13	23	21	3	4
Ethyl Acrylate	0.25	8	21	8	0	0	0	0	0
Methyl Methacrylate	11	200	736	94	41	64	65	11	10
Phenol	0.055	6	2	2	3	2.6	4.2	2.4	0.2
Propylene Oxide	150	420	295	275	283	277	297	113	0
Toluene Di-isocyanate	0.015	0.3	0.1	0.1	0.1	0.1	0.1#	0.1	0.1
Non-Speciater VOC	530	9300	6230	6400	4820	2790	2790 #	1211	1101
Carbon monoxide	40	1100				*	*	510*	865*
Total nitrogen oxides	240	9500				*	*	1150*	1960*
Total sulphur oxides	70	18000				*	*	3*	5.4*

Notes:

\* This data is based on the combustion products from the combustor VECs and the boilers based on NPI emission factors and the total natural gas fuel plus equivalent combustion value of the VOC emissions treated by the combustor. The VOC fuel is about 5% of the natural gas mass usage and 3% of the combustion value of natural gas usage. Thus NPI emission factors seem appropriate. In addition, in 2006 monitoring data covering 24 samples (60 tests) showed full compliance to and generally less than 10% of the licence emission limit. Results are detailed in Appendix F.

# The 2003/04 financial year estimated emission was used for 2004 calendar year.

These emission estimates are based on US EPA software, Tanks 4.09d version or API 42 software calculations as a function of storage tank dimensions, chemical physical properties, and tank container filling quantities, duration in the tank and emission treatment effectiveness.

For 2005 and 2006 VOC is defined according to the Victorian EPA definition of all hydrocarbons with a vapour pressure greater than 0.01kPa whereas previously the NPI definition of hydrocarbons with a vapour pressure greater than 0.272kPa has been used. This means emission estimates for two additional chemicals were undertaken.

## 6.2 STORMWATER DISCHARGES

There were no non-compliances to the waste discharge criteria specified in the Environmental Management Manual and tabulated below. This compares favourably with the five non-compliances during 2005.

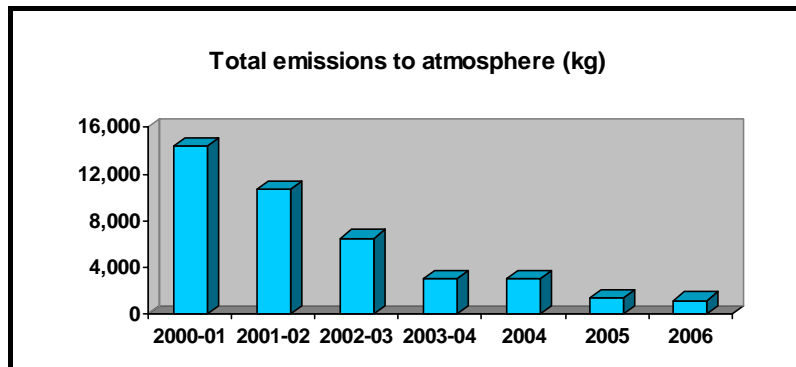
<b>Performance Indicator Unit</b>	<b>Limit/s</b>
Biochemical Oxygen Demand	<b>40</b> (mg/l) Maximum
Suspended Solids	<b>60</b> (mg/l) Maximum
Toxicity as determined by microtox	<b>100</b> Minimum
pH	<b>6-9</b>
Total Organic Carbon	<b>40</b> (mg/l) Maximum
Dissolved Oxygen	<b>5</b> (mg/l) Minimum
Flow rate	<b>200</b> kilo litres/day Maximum
Temperature	<b>Ambient</b>

## 7. WASTE MANAGEMENT PERFORMANCE

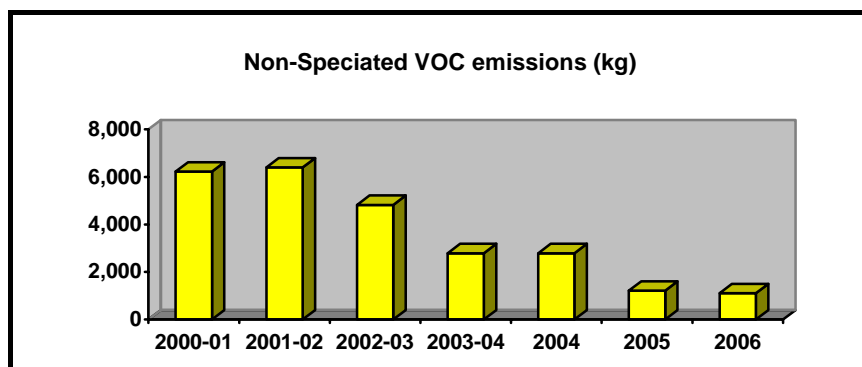
The Environmental Management System reviews existing and develops new targets and objectives on an annual basis. This is also called the Waste Management Plan.

Analysis of air emission discharge points during 2006 found no non-compliances in over 60 samples.

Total emissions to the atmosphere are shown below.



Total non-specified VOC emissions to the atmosphere are shown below. These do not include the specific chemicals listed in EPA licence, Table 1, but do include all hydrocarbons with a vapour pressure greater than 0.0272 kPa (NPI definition) and in 2005 and 2006 include those with a vapour pressure above 0.01kPa as defined by the Victorian EPA..



Treatment systems effectiveness are generally conservative and include:

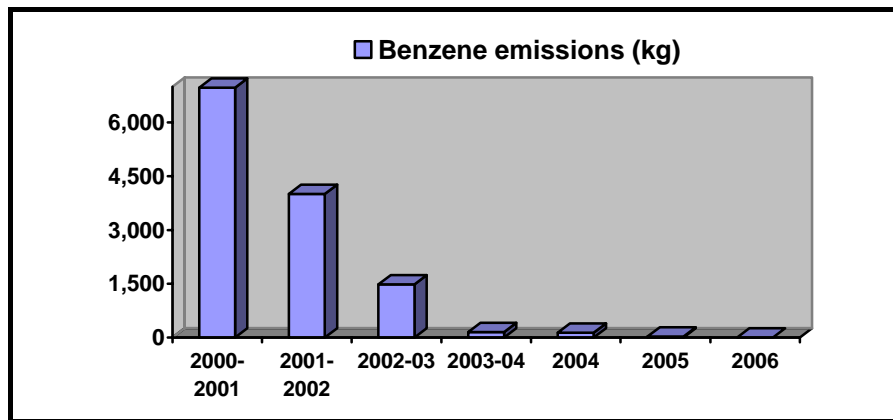
- Vapour return at 100%
- Combustor at 99.6% but initially (2002-03) combustor efficiency factor of 99.96% was used on actual design performance effectiveness. The assumption of 99.6% has been verified by previous results and confirmed by results in 2005 and 2006. The effectiveness could be higher but the accuracy is limited by the measuring sensitivity of the outlet results.

- Activated carbon bed at 90% after July 2001 and 85% previously due to workload and performance. Testing has confirmed treatment efficiency greater than 90% except for low load conditions when accuracy is limited by the measuring sensitivity of the outlet results.
- Caustic scrubbers for acrylates range from 85% to 90%, while two in series or scrubber with activated carbon VEC scored 98.5%
- Phenol scrubber at 95% and at 99.6% from July 2005 when new phenol tank (44) was commissioned and emissions treated by combustor.
- PO scrubber 99%. This assumption has been verified by analysing results.
- TDI ammonia scrubber plus activated carbon treatment at 99%.

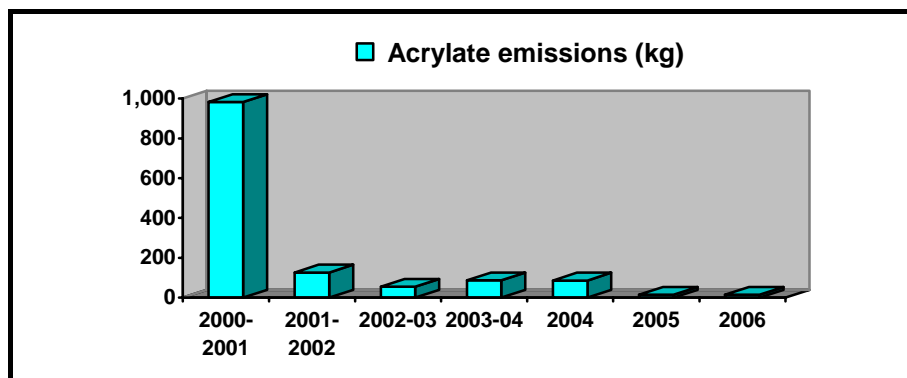
Efforts to reduce VOC emissions have been focused on reducing emissions of class 3 indicators, benzene and acrylonitrile, as well as odour generators, acrylates, as priority. This has been achieved as demonstrated in the graph above and the following specific graphs. The reasons are:

- Combustor started treating benzene and crude benzene emissions from November 2002.
- Combustor started treating acrylate storage tank emissions from December 2002 at Plant B.
- Combustor started treating acrylonitrile storage tank emissions from June 2003.
- Combustor started treating acrylate road tanker loading emissions from December 2004.
- Acrylonitrile storage tank was decommissioned in June 2004.
- Benzene and crude benzene were no longer stored nor handled from April 2005. However a new product of Pygas (mainly benzene) has been stored from early 2006 in two semi pressurised tanks and one atmospheric tank. The semi pressurised tanks have further reduced the benzene emissions due to their higher pressure (less need to vent for Pygas vapour pressure) coupled with vapour balancing to road tanker unloading operations.
- Storage tanks at both Plants B and C have steadily been switched to the combustor with only seven tanks at Plant B west side remaining in 2005 on the activated carbon bed system. In 2006, remaining seven relevant tanks have been switched to the combustor. Only the Plant B road tanker loading operations remain to be switched from carbon bed system to the combustor vapour treatment system.
- During 2005, the east side storage tanks were decommissioned. This included all PO storage tanks being decommissioned by April 2005.

Benzene emissions to air are graphed below and further demonstrate the VOC emission findings.



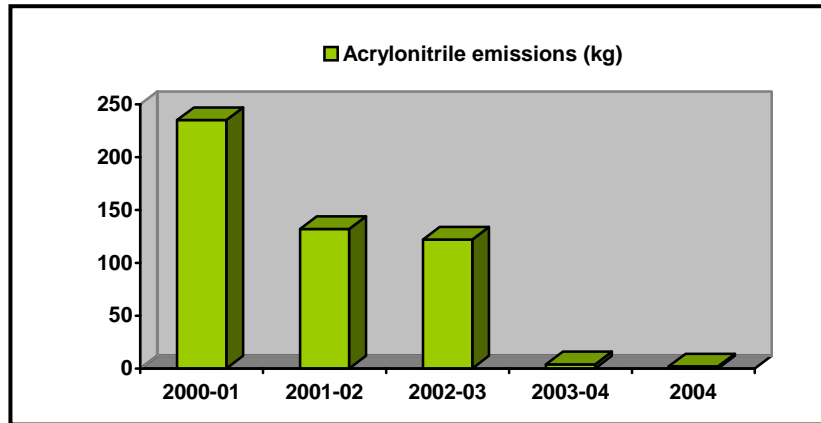
Acrylate emissions are graphed below.



Because of the significant number of odour complaints in 2001 from acrylate operations, several strategies were implemented to reduce odour (acrylate) emissions and complaints from handling 10-20 acrylate storage tanks located at different parts of the site. These treatment improvements included:-

- Two stage treatment process using available caustic scrubbers with activated carbon VECs.
- Installing a new purpose built caustic scrubber for acrylate treatment.
- Consolidating acrylates into one area to make use of best available caustic scrubbers then later combustor treatment in stages starting from December 2002.
- Exiting the highly odorous ethyl acrylate business in late 2001.

Acrylonitrile emissions are graphed below.



From July 2004, acrylonitrile is no longer stored nor handled on site.

## 7.1 LIQUID WASTE

Overall the total waste stream has decreased substantially by 4,280 tonnes (82%) in 2006 from 5,210 to 927 tonnes. This is further to the 35% decrease in waste in 2005 and a longer term trend reduction in waste levels over the last five years.

Total EPA prescribed wastes transported from Melbourne site to an approved treatment facility are detailed in the table below. Breakdown components and previous results are tabulated as a means to identify waste sources and minimisation strategies. In general terms, the Melbourne site has been undergoing major upgrading of its facilities while decommissioning and demolishing or relocating tanks from the east side of Mackenzie road. This has involved cleaning storage tanks, major renovations to tanks, new foundations including environmental liners and moving storage tanks.

This appears to have started to stabilise in 2005 with a substantial decrease of 2,293 tonnes (45%) in tank and pipeline cleaning waste. Furthermore 2006 has seen a further substantial decrease of 2,217 tonnes (80%) from the 2005 level. A contributing factor to this decrease appears to be the segregating stormwater project that was completed in five areas in 2005. The waste from the carbon bed VEC system has continued to decrease significantly (74% in 2006 and a 3,000 tonne reduction in 2006 based on 2001 to 2003 figures) with the combustor taking all relevant tank venting and Plant C tanker loading during 2006; leaving the carbon beds on Plant B tanker loading duty plus emergency back up. The propylene oxide waste stream is now nil as PO ceased being stored on site in April 2005.

<b>Waste Description</b>	<b>2001/02</b>	<b>2002/03</b>	<b>2003/04</b>	<b>2005</b>	<b>2006</b>	<b>% Difference</b>	<b>Comments</b>	
	<b>tonnes</b>							
Activated carbon	36	16	2	0.4	0.4	0	Load on carbon VECS low now combustor commissioned	
Corrosive Washings	240	1255	1256	905.9	0	-100	Propylene oxide gone	
Tank & line washings (non flammable)	746	1350	5080	2787.4	Flammable 194.4 Non Flammable 375.8	-80	Major decrease due to stability and starting to segregate stormwater	
Ship first flush	58	2	0		0	NA	Customers unable to handle pure waste separately	
Phenol wastes	33	93	0	285.7	30	decrease	Back to usual	
VECS waste (flammable )	3975	3342	1769	1230.3	324	-74	Load on carbon VECS low now combustor taking all relevant tank venting and Plant C loading	
Pigs and Rags					2.7	NA	Usual quantity	
<b>Total</b>	<b>6376</b>	<b>6067</b>	<b>8107</b>	<b>5209.7</b>	<b>927.3</b>	<b>-82</b>		



## 7.2 SOLID WASTE

The total waste transported off site in 2006 was 3.1 tonnes. The breakdown of this waste into components with comparison to previous years is tabulated below.

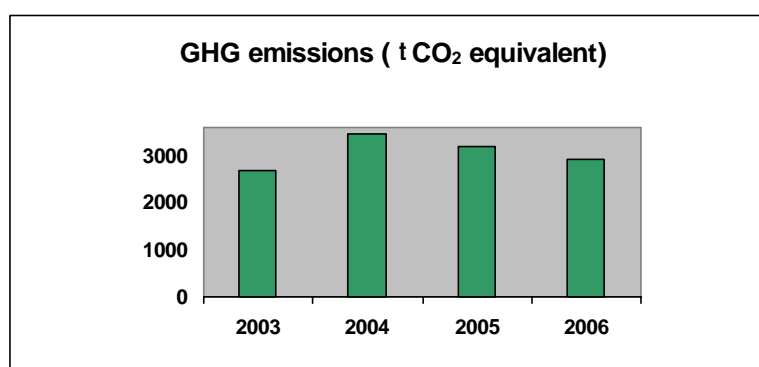
PRESCRIBED SOLID WASTE					
	YEARS				
	2001/02	2002/03	2003/04	2005	2006
	(tonnes)				
Foam pigs (F100)	1.5	3.8	7.6	4	2.7
Contaminated Soils including sandblasting grit (N120)	22.9	2.3	17.5	17.4	
Activated carbon (N210)		16	2.3	0.4	0.4
Drums (N100)		2.2			
Sludges & residues (N205)	36.5				
Organic cyanides (M210)	26.9				
Polymerised acrylate (N180)				0.2	
<b>TOTAL</b>	<b>87.8</b>	<b>24.3</b>	<b>27.4</b>	<b>22</b>	<b>3.1</b>

A dominating theme is the upgrading of tanks, foundations and pipework during previous years. This causes waste from cleaning tanks/pipework, grit blasting tanks and removal of contaminated soil hot spots in accordance with our Groundwater Management Plan.

## 8. ENERGY EFFICIENCY AND GREENHOUSE GASES

A level two energy audit was undertaken on 21 October 2003 by ERM. The energy assessment was undertaken as part of the Victorian EPA Protocol for Environmental Management (PEM) requirements, ie. a category C of the PEM requiring a level two energy and greenhouse gas assessment. With additional information, this report was accepted by the EPA in October 2005.

Greenhouse Gas (GHG) emissions are graphed below in equivalent tonnes of CO<sub>2</sub> emissions. These figures do not include the combustion products from treating the product vapour emissions.



These are derived from usage of natural gas for boilers (2) and combustor treatment units (2); electricity for pumps/fans/utilities and diesel for firewater pumps and forklifts/trucks. Fuel usages are converted to energy consumption (GJ) and, in turn, to GHG emissions (t CO<sub>2</sub> equivalent) using standard emission factors from the AGO (Australian Greenhouse Office) website. The last four years are tabulated below and cover the period of the combustor operating. The information is based on invoice meter readings. A minority of the records prior to 2005 cannot be found and these values have been estimated based on the available majority of data.

Fuel Type	2003		2004		2005		2006	
	Fuel consumed	GHG emissions (t CO <sub>2</sub> equivalent)	Fuel consumed	GHG emissions (t CO <sub>2</sub> equivalent)	Fuel consumed	GHG emissions (t CO <sub>2</sub> equivalent)	Fuel consumed	GHG emissions (t CO <sub>2</sub> equivalent)
Natural Gas (GJ)	14,279	738	23,256	1,202	27,847	1,440	22,132	1,140
Electricity (KWH)	1,306,733	1,887	1,530,220	2,210	1,163,660	1,680	1,186,600	1,713
Diesel (kl)	25	68	25	68	25	68	25	68
<b>Total</b>		<b>2,693</b>		<b>3,480</b>		<b>3,190</b>		<b>2,925</b>

In 2006, of emission contributions were from electricity at approximately 60%, natural gas at approximately 39% and diesel at 2%. Natural Gas emissions have decreased by 21% from 2005 providing a decreased GHG component factor of about 45% in 2005, although only 30% in 2004.

Overall, the GHG emissions have reduced by 8% in 2006 in addition to the 8% decrease in 2005. The facility has undergone substantial changes over the last 4 years with most changes occurring in 2005 and therefore impacting on 2006. They were:

- Commissioning air dilution stream for road tanker loading as an additional feed to the combustor in late 2004; combustor is located at Plant B. The air dilution stream is operated with sufficient additional air to conservatively maintain this feed stream in the fuel lean range for safety reasons. This adds a substantial air stream that is energy (gas) hungry in order to keep the combustor at 890 C. In addition this involves a large air dilution fan that increases power usage.
- Shutting down the boiler and activated carbon VEC system at Plant C east side during first half of 2005. Resulting in reduced gas (boiler) and power (VEC fans) usage.
- Benzene and crude benzene tanks were decommissioned in April 2005. The loss of this stream as a fuel to the combustor means higher fuel usage to maintain the combustor temperature control but only by a 5% factor.
- Upgrading tanks and transfer systems at Plants B and C west side facilities including new tank foundations and more efficient pump motors. This means less power usage when pumps operating due to more efficient pump motors and are used when loading as connected to automatic loading system that stops motors when not required.
- Decommissioning tanks on the east side and then either relocating them to west side or demolishing them. In turn, power usage decreasing on the east side but increasing on the west side as many of these tanks and systems are returned to service.
- Reducing combustor temperature set point from 890 to 750 C during 2006 to reduce natural gas (energy) usage and GHG emissions.

These effects are reflected in the following tables.

#### Electricity Usage (KWH)

	Plant B	Plant C West	Plant C East	Overall
2004	661,092	439,428	429,700	1,530,220
2005	869,039	159,391	135,230	1,163,660
2006	1,048,000	138,100	0	1,186,600
Effect from previous years	21% increase after 31% increase last year	13% decrease after 64% decrease last year	100% decrease after 69% decrease last year	2% increase after 24% decrease last year

### Natural Gas (GJ)

	Plant B	Plant C	Overall
2004	20,727	2,529	23,256
2005	26,375	1,472	27,847
2006	22,131	0	22,131
Effect from previous years	16% decrease after 27% increase last year	100% decrease after 42 % decrease last year	21% decrease after 20% increase last year

In summary, overall the GHG emissions have reduced by 8% in 2006 in addition to the 8% decrease in 2005 due to significant improvements over the last four years. The largest factor in GHG emissions is the combustor located at Plant B in both natural gas and electricity as demonstrated by the Plant B figures. The combustor system is almost fully commissioned with all tanks now connected leaving only the Plant B road tanker loading via a new gas hungry plant B air dilute stream. Full commissioning will assist in having a steady reference point for comparing GHG emissions as there continues to be several conflicting influences, eg: tank renovations, old top loading at Plant B, new bottom loading at Plant C including more efficient pump motors and online times.

The status of the GHG reduction action plan is tabulated below.

Action	Status
<ul style="list-style-type: none"> <li>- Improve combustor efficiency &amp; Greenhouse Gas Emissions by:- <ul style="list-style-type: none"> <li>• Trialling 50°C reduced temperature set points for combustion</li> <li>• Minimising night time duty for combustor while no transfers.</li> </ul> </li> </ul>	Reduced combustor temperature set point to 750 C after EPA approval based on successful trials showed treatment effectiveness maintained above 99.6% ie the stated design performance by manufacturer.
<ul style="list-style-type: none"> <li>- Shut down east side operations including boiler, VEC &amp; pumps / fans/ utilities. Monitor reduction of natural gas by 10% &amp; electricity by 20 – 25%.</li> </ul>	<p>Completed by July 2005. Boiler and VEC systems were located at Plant C east.</p> <p>Plant C east side electricity decreased by 100% &amp; 69% in 2006 &amp; 2005 respectively ie 429,700 to 0 KWH. This equates to 36% saving of the company electricity usage in 2006 terms.</p> <p>Natural gas usages for Plant C decreased by 100% &amp; 42% per year over the last two years ie from 2,500 to 0 GJ. This equates to 11% savings of the company gas usage in 2006 terms.</p>
<ul style="list-style-type: none"> <li>- Replace motors with high efficiency motors as opportunity arises.</li> </ul>	All new pump/motors are designed at maximum efficiency pump loading point.
<ul style="list-style-type: none"> <li>- Nominate Energy Manager for site.</li> </ul>	Complete. Nominee is Engineering Manager, Paul Hayward.
<ul style="list-style-type: none"> <li>- Regular reporting of energy and associated GHG emissions, as part of EIP.</li> </ul>	Complete as per this annual report to the EPA.

## 9. GROUNDWATER MANAGEMENT PLAN

The eastern parts of the facility were demolished and remediated during 2005 as detailed in the Remediation Action Plan of July 2002. Final assessment reports culminating in a Statement of Environmental Audit, signing off the clean up of the site for industrial use, was received on 28 August 2006. A groundwater monitoring plan to assess any offsite impact has been developed and is part of the Statement of Environmental Audit. Initially this requires groundwater monitoring of key boundary wells every quarter for the first 15 months and an assessment report on performance after 12 months. The first two quarterly sampling rounds have been carried out and results are either below the target criteria or, for two wells, have decreased significantly from post remediation results of December 2005 and are now within a factor of two to four of the target criteria. This compares favourably with exceedances above target criteria in December 2005 of 12 analytes at 8 wells while in September 2006 found 4 analytes at 3 wells and in December 2006 found 3 analytes at two wells

The annual Groundwater Monitoring Program of the west side for 2006 calendar year was completed by ERM (first half) and WSP Environmental Pty Ltd (second half). This included two separate reports detailing gauging, samples and analysis and a final annual assessment report. These reports are in accordance with our Groundwater Management Plan dated 30 November 2001.

These results show:

- Separate Phase Hydrocarbons found in the Plant B northern area and Plant C southern plus south central areas. Recovery trench system has been installed at Plant B northern and Plant C southern areas. Manual pump out recovery system has been successfully trialled at Plant C. The next step in 2006 is to install automatic pump out recovery systems at both Plant B northern and Plant C southern trenches.
- Down gradient off site monitoring wells are generally meeting the adopted criteria; usually ANZECC Guidelines for Fresh and Marine Waters:-
- Exception is at Plant C north (RF3A, RF9A, RF10A etc). As reported last year; this has been delineated and it appears the cause is historical from a neighbouring site and previous company. This is being pursued by PoMC.

Terminals proposes to continue the existing annual monitoring program and assessment plus undertake installing automatic pump out recovery systems at Plant B north and Plant C south trenches. The environmental consultant has recommended a tuning of the monitoring program to basically return to the pre-2006 level, now that the unexpected elevated results of 2005 can be explained and results have returned to normal during 2006. It further recommended the removal of SVOC scan, as the only chemical reported above the analytical sensitivity over the last 3 years is naphthalene and this is analysed for during the VOC scan.

The annual Groundwater Monitoring Report of the previous Plant A site for 2006 was completed by Lane Piper environmental consultants. The results are consistent with previous year's results and show a general decreasing trend to levels below the level of concern. Off site monitoring wells did not detect any analytes above the ANZECC guidelines. After nine years of groundwater monitoring after the site clean up and levels below level of concern; recommendation to EPA is to cease the annual groundwater monitoring program for this site

## 10. ENVIRONMENT IMPROVEMENT PLAN (EIP)

Completion of action items from the first EIP (2002 to 2004) is summarised below.

Year	Completed	Deferred Indefinitely	Recycled
2002 to 2004	30	1	14

Some of the major achievements include:

- commissioning of majority of stages of combustor treatment unit, ie new vapour emission control system;
- upgrading of acrylate storage tanks and loading systems to sealed systems;
- fitting high density polyethylene impermeable liners under tank floor as tanks were renovated;
- implementing new exchanger area for Plant C and for acrylates;
- installing waste minimisation pipe work for acrylate storage tanks; and
- installing backup emergency power supply for combustors and critical equipment.

This EIP concluded at end of 2004. A new EIP has been developed for the following four years to the end of 2008. This has been approved by the EPA and community consultative committee (CICCC). The new EIP and its status is summarised below. Steady and consistent progress is being shown as at end of 2006, a total of 35 actions have been completed compared to 14 being completed by end of 2005.

Year	Total Number	Completed
2005 to 2008	62	35

Some of the major achievements include:

- installing five roofs and drainage systems over truck fills and exchanger areas to minimise waste by segregating rain water;
- refurbishing all tanks at Plant C expansion and upgrading their foundations;
- refurbishing all tanks at Plant B combustible area and upgrading their foundations;
- upgrading pumps, pipe work, loading systems for above Plant B and C tank upgrades;
- installing waste minimisation pipe work for above Plant B and C tank upgrades;
- installing emergency lighting for Plant B;
- decommissioning, demolishing and remediating east side facilities;
- shutting down boiler and carbon bed VECS on east side facilities;
- all flammable storage tanks are vented to the combustor;
- phenol tank is vented to the combustor;
- all flammable tanks have high pressure alarms as well as high level alarms;
- all tanks at Plant C are connected through hard piped exchanger areas;
- combustor temperature set point has been lowered to 750 C.