

Construction and Operational Traffic Management Plan

Terminals Pty Ltd – Proposed Modification 2 to DA246/96

1.0 INTRODUCTION

This is operational traffic management plan prepared by Terminals Pty Ltd in respect to the operation of a Modification (Mod 2) to the existing Stage 5 bulk liquid storage facility to the subject land located at 9-11 Simblist Road, Port Botany.

The proposal is detailed in the Environmental Assessment dated August 2013, prepared by Urbis.

This plan has been prepared in response to the Director General Requirements (Department of Planning and Infrastructure) dated 20 August 2013 on a Proposed Modification to D246/96 under Section 75W of the Environmental Planning and assessment Act 1979. The DGRs state in relation to Traffic and Transport, to include:

- *accurate predictions of the traffic volumes likely to be generated during construction and operation;*
- *a detailed traffic impact study of the development; and*
- *details of any upgrades to road or shipping infrastructure.*

2.0 BACKGROUND AND EXISTING CONDITIONS

The Terminals Pty Ltd bulk liquid facility is located at 43 -45 Friendship Road and 9-11 Simblist Road, Port Botany. The site has heavy vehicle access to separate parts from Simblist Road and Friendship Road. Simblist Road and Friendship Road form a one-way clockwise loop from Bumborah Point Road, providing access to a number of bulk liquid storage and container terminal facilities. As such these roads experience significant heavy vehicle volumes.

The one-way loop arrangement was implemented in recent years in order to better manage the increasing traffic volumes and on-street truck queuing / short-term parking in the precinct, as well as improving road safety.

Terminals Pty Ltd obtained development consent for the expansion of their Port Botany Bulk Liquid Facility in 1997. This expansion comprised an additional 20,250 m³ of storage capacity across 12 tanks for various flammable and combustible chemicals including petroleum hydrocarbons, as well as road tanker loading and unloading facilities including an access driveway to Simblist Road. Of that proposed expansion, the loading and unloading facilities were constructed as well as one tank with a volume of 5,000m³ (Tank 270).

In order to understand the existing heavy vehicle traffic generation of the site, the following comments can be made:

- Terminals Pty Ltd has provided monthly totals of truck movements for a six month period from August 2007 to January 2008.

That data provided information on both product deliveries from the site (separated into those occurring from the Simblist Road and Friendship Road access points) as well as supply deliveries to the site. When conservatively assuming a 6-day week for the Simblist Road precinct and a 5-day week for the Friendship Road precinct, this represents a current heavy vehicle traffic generation of:

- 9 vehicles per day using the Simblist Road access; and
- a total of 29 vehicles per day for the overall site.

Heavy vehicles transporting petroleum hydrocarbons from the Simblist Road loading facilities use an automated self-load system that can be accessed by security card on a 24/7 basis. This facility can only be used by one vehicle at a time. Normal loading operations generally occur outside of road network peak periods to avoid periods of high traffic congestion on the surrounding road network.

- In addition, the traffic implications of the approved modification to DA 246/96 (Mod 1) as well as the approval to construct two new 1,750m³ capacity storage tanks for storage of Ethanol and Premium Unleaded Petrol has been assessed and approved (C09/1141).
- GTA Traffic Consultants assessed the heavy vehicle traffic generation in the previous Modification to the bulk liquid storage consent (Mod 1), as outlined in the table below:

Table 1: Terminals Bulk Liquids Storage Facility traffic generation (vehicles per day)

| Precinct | Existing Operation (2007/8) | Original DA | Proposed New Storage (2009) | Total Revised DA(2009) | Future Estimate (~2014) |
|-------------------|-----------------------------|-------------|-----------------------------|------------------------|-------------------------|
| Simblist Road | 9 | | 10 | 19 | 24 |
| Total Site | 29 | 40 | 10 | 39 | 44 |

Ref: GTA traffic report dated June 2008

- The heavy vehicle traffic generation for the Bitumen Import facility, C10/7175, (on the Simblist Road frontage) was estimated to increase the traffic generation by approximately 10 vehicles per day and a total site traffic generation of 40 vehicles per day, consistent with the original DA. Further, at this time, for the purposes of sensitivity analysis only, it was assumed the forecast growth estimates with a five-year horizon result in an indicative increase to a total of 44 vehicles per day.

Overall, the proposed additional traffic generation is approximately 6-10 vehicles per day which would bring the total site traffic generation of approximately 46-50 vehicles per day. This is considered to be generally consistent with the current traffic generation of the on site operations and especially when considered against the future natural growth of the on site operations as compared to an original approval obtained in 1997, of 40 truck movements, some 16 years ago. The traffic impact is discussed further below.

3.0 TRAFFIC IMPACT OF APPROVED DEVELOPMENT

The subject Modification to further expand the Stage 5 storage capacity by the proposed increase of 12 tanks with a total capacity of 14,500m³ is anticipated to result in an additional 6-10 truck movements per day.

To put these volumes in context, Port Botany experiences in the order of 2,900 truck movements per day and key access roads such as Foreshore Road carry upwards of 30,000 vehicles per day.

The conversion of Simblist Road and Friendship Road to a clockwise one-way loop configuration in recent years (by NSW Ports, formerly Sydney Ports Corporation) has significantly improved the operation and traffic volume capacity of this precinct. The proposed additional traffic volumes are not expected to have a significant effect on these roads. The increase in traffic volumes would have a negligible effect on the arterial road network and key freight transport routes further away from the site.

Heavy vehicles travelling to and from the site would use the existing freight transport routes suitable for carrying dangerous goods. These include Bumborah Point Road, Foreshore Road, General Holmes Drive and Joyce Drive/ Qantas Drive.

Further, given the context of the proposal, which seeks to “transfer” the operations of Vopak when it ceases, the interim situation would see no increase in truck movements within the immediate precinct as the proposed 6-10 truck movements are already existing as part of Vopak’s operation. In theory, this chemical storage operation will be shifted onto Terminals site and any associated truck movements and generation.

4.0 OPERATIONAL TRAFFIC MANAGEMENT MEASURES

The following management measures will apply as part of the on-going operation:

Loading Access and Times

- The loading of the trucks at Friendship Road access is presently on a ten hour (6am to 4am) Monday to Friday business basis. The Friendship Road loading hours are being extended to a 13hr/5day Monday to Friday basis to provide improved customer service. This project using the existing, but extended, Stage 3 loading gantry on the Friendship Road frontage will offer to customers these extended business hours which may reduce traffic density.
- Loading is via a purpose built tanker loading hoses and that load at a rate of up to 1,600litres per minute into each truck compartment. The project is using faster automatic loading technology and estimated that loading times will be reduced from 40 to less than 40mins on average.
- No queuing of trucks is permitted within the site for safety reasons and operations will also consistent with existing site protocols for truck parking/queuing along Friendship Road. There is no potential for congestion of queuing along Simblist Road as truck gantry access will remain at Friendship Road.

Vehicle Types and Sizes

The types of vehicles that are proposed to be used for product transport are consistent with the approved development; comprising heavy rigid vehicles, semi-trailers and B-Doubles with a capacity ranging from 10,000 to 50,000 litres.

Access Routes

- The heavy vehicles travelling to and from the site will continue to use the existing freight transport routes suitable for carrying dangerous goods.
- These include Bumborah Point Road, Foreshore Road, General Holmes Drive and Joyce Drive/ Qantas Drive.

5.0 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

5.1 Construction Duration

Construction is to be undertaken between 7:00 am to 6:00 pm Monday to Friday, 7:00 am to 4:00 pm Saturday and potentially every second Sunday. Therefore there is the potential for construction to be undertaken outside of general construction hours on Saturday and Sunday during the day-time period.

The construction period is anticipated to take approximately 9-12 months to complete. Most of the construction works will access the Simblist Road entrance while a number will access the Friendship Road side.

5.2 Anticipated Construction Traffic Volumes

The estimated construction traffic volumes have been outlined below.

Phase 1 - Initial Site Works (approximately 2 months)

- Front end loader, excavator and roller on site;
- 100-200 trucks of sandstone and concrete deliveries; and
- 3 workers vehicles per day for first 5 weeks of the project.

Phase 2 - Tank and Pipework Fabrication Works (approximately 6-9 months)

- 25 workers vehicles per day for 6-9 months starting in the 2nd month;
- 1 truck delivering steel plate as required during job say 2 trucks every 2 weeks for 6 months;
- 1 truck delivering pipework, equipment and infrastructure as required – approximately 1 truck per week for 6-9 months
- Crane on site for 6-9 months – one trip & stays on site plus a crane accessing Friendship Road side as needed for approximately 3 months;
- Front end loader, excavator and roller on site; and
- Moving of tanks with crane or flat loader on maybe 3-6 times over 6-9 months.

Phase 3 - Final Completion Works (approximately 2 months)

- 15 worker's vehicles for the last 1-3 months of project; and
- 1 crane for lifting pipes into position.

General Deliveries

- General deliveries of valves, pumps & equipment – estimated 20-30 trucks over construction phase of 9-12 months.

5.3 Induction Management for Construction Staff

All staff working on the project will be required to undertake an induction process that includes:

- Briefing on driver behaviour and vehicle maintenance;
- Route selection for heavy vehicles;
- Agreed locations for worker vehicle parking (to be located on-site or Prince of wales Drive or nearby off site parking);
- Construction induction card; and
- Emergency muster points and response actions.

5.4 Traffic Management Protocols

Terminals will, if requested by NSW Ports or DP&I, provide traffic marshals during the construction period to manage safe vehicle entry and exit in the event that NSW Ports or DP&I considers this necessary.

5.5 Complaint Management Protocol

During the construction process, Terminals Pty Ltd will be responsible for ensuring that all conditions of approval including this construction traffic plan are adhered to.

Contact Details:

Wayne Jarman
Engineering Project Manager
Terminals Pty Ltd
Ph: 9316 1906
Mobile: 0418 516 542

All complaints will be recorded in a log book and investigated via the Terminals Incident Reporting system as well as notifying NSW Ports of any incidents.

5.0 UPGRADES TO ROAD OR SHIPPING INFRASTRUCTURE

In terms of implications on shipping infrastructure, it is estimated that the proposed modification will generate an additional 5-8 additional ships per year dependent on product breakdown and parcel sizes (as some of these products may share existing ship arrivals). Importantly there are no additional movements for Port Botany area and the BLB usage.

Overall, there are no proposed upgrades to either road or shipping.