



Our reference: EF15/15401:DOC15/372014-05:JB  
Contact: Jen Byrne (02) 4224 4100

Department of Planning and Environment  
(Attention: Pamela Morales)  
GPO Box 39  
SYDNEY NSW 2001

Dear Madam

**EXHIBITION OF ENVIRONMENTAL IMPACT STATEMENT  
PORT KEMBLA BULK LIQUIDS TERMINAL (SSD 15 7264)**

I am writing to provide comment on the Environmental Impact Statement (EIS) for the Bulk Liquids Terminal at Port Kembla (SSD 15\_7264) which was recently publicly exhibited.


The Environment Protection Authority (EPA) has undertaken a review of the EIS and provides the following matters which require either clarification or additional information. These matters are detailed in Attachment A and include:

1. Secretary's environmental assessment requirements
2. EPA licensing
3. Approved project MP08\_0083 as modified
4. Air quality and odour management
5. Noise and vibration
6. Water quality
7. Traffic and transport

The EPA considers the above matters should be resolved as part of the development assessment process and to assist the EPA in determining relevant licensing requirements (if approved). The EPA may have additional comments upon receipt and review of the above information.

The EPA met with the Proponent on 14 January 2016 to discuss future licensing requirements and our preliminary comments on the exhibited EIS. The EPA is able to meet with the Department of Planning and Environment (DPE) and the Proponent at a mutually convenient time to discuss the above issues, if required.

Please contact Jen Byrne on (02) 4224 4100 if you have any further questions.

  
08/02/16  
**PETER BLOEM**  
Manager Illawarra  
**Environment Protection Authority**

Att A: Comments and additional information required

## ATTACHMENT A

### 1. Secretary's Environmental Assessment Requirements

The EPA provided its Secretary's Environmental Assessment Requirements (SEARs) for the preparation of an EIS in a letter to the DPE dated 30 September 2015. The EIS does not appear to have fully addressed all of its requirements. Some but not all of the following comments relate to the EPA's key assessment requirements. The EPA recommends that the requirements of this letter should be fully addressed. A copy of this letter can be provided on request.

### 2. EPA licensing

TQ Holdings Australia Pty Ltd (TQ) does not currently hold a licence under the *Protection of the Environment Operations Act 1997* (POEO Act) for the premises. Schedule 1 of the POEO Act contains a full list of activities that require a licence. Scheduled activities that that could be accommodated under this proposal include, but are not limited to, chemical storage and shipping in bulk.

Should development approval be granted, TQ Holdings will need to apply for a licence for work that is designed to enable a scheduled activity to be carried on (scheduled development work). Once scheduled development work is completed, TQ Holdings will then need to apply for a licence variation to authorise scheduled activities to be carried out.

Further information on applying for a licence and the type of documentation that should be included with licence applications can be found in the *Guide to Licensing* (DECC, 2009), available at: [www.epa.nsw.gov.au/licensing/licenceguide.htm](http://www.epa.nsw.gov.au/licensing/licenceguide.htm).

### 3. Approved Project MP08\_0083 as modified

In 2009, National Biodiesel Pty Ltd obtained major project approval for a Soybean Processing Plant and Biodiesel Production Facility (MP08\_0083). The EPA provided its recommended conditions of approval to MP08\_0083 to the DPE on 12 February 2009. Three modifications to MP 08\_0083 were subsequently proposed and approved (MOD 1, MOD 2 and MOD 3). The EPA also provided its recommended conditions of approval to the DPE in relation to MOD 1, MOD 2 and MOD 3.

National Biodiesel have determined that the Soybean Processing Plant and Biodiesel Production Facility is no longer viable, however the storage and distribution component of MP08\_0083 remains viable. TQ Holdings Australia Pty Ltd have acquired the approved project rights and propose to establish the Port Kembla Bulk Liquids Terminal at the same location.

TQ have advised that they intend on commencing construction of selected elements of MP08\_0083 as modified prior to the determination of SSD 15\_7264. The EPA is not in a position to issue a licence under the POEO Act unless development consent has been granted for the scheduled development work or scheduled activity. The conditions of consent for MP08\_0083 as modified include a number of conditions and commitments that relate to the Soybean Processing Plant and Biodiesel Production Facility.

The EPA requests that DPE provide a consolidated consent of MP08\_0083 (as modified) which clearly details only those conditions of consent and statement of commitments which relate to the storage and distribution component.

The EIS states that TQ obtained endorsement from DPE on 21 January 2015 for its staging plan. The EPA also requests a copy of this staging plan and endorsement from DPE to inform any future licensing requirements.

#### 4. Air quality and odour management

The EPA has undertaken a review of the EIS and accompanying Air Quality and Greenhouse Gas Assessment (AQGGA) and provides the following comments which require either clarification or additional information is required.

##### Construction

Dust emissions from the construction phase of the proposed Project have the potential to cause environmental impact. The EIS states that dust management will be addressed and incorporated into the Proponent's Construction Environmental Management plan (CEMP). Dust mitigation measures must be incorporated into the proposed CEMP to ensure effective measures are implemented during all construction activities. If approved, the CEMP should support any application for a scheduled development work licence.

##### Assessment of additional emission sources

Project emission sources include the following:

- Tank breathing
- Ship unloading and truck loading emissions
- Fugitive emissions from leakages, spills, and the truck loading gantry; and
- Auxiliary engine combustion emissions from ships importing petroleum products at berth.

The AQGGA estimates VOC emissions from tank venting and breathing losses and emissions from the Vapour Recovery Unit (VRU) servicing road tanker load out. The AQGGA does not include emission estimates for other sources. It is stated that 'fugitive emissions associated with filling the shorelines and transfer lines, initial filling of volatile storage tanks up to the internal floating roof working level, and leakages and spills are expected to be minor and temporary. Thus, these potential emission sources are not considered further in the modelling.'

The EPA notes that VOCs emissions from tank breathing losses and from truck loading activities have been modelled and presented separately rather than for the project site as a whole.

In addition, the proposed Project throughput has not been contextualised with other major industrial sources of VOCs in close proximity.

The AQGGA states that 'in view of the adjacent land uses, it is not anticipated that there will be significant concentrations of VOCs that should be considered on a cumulative basis. In any event, the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales* (EPA, 2005) (EPA's Approved Methods) does not require the evaluation of cumulative impacts (that is, addition of existing ambient concentrations) for the assessment of VOCs and air toxics. Rather, these parameters are evaluated in terms of their incremental contribution. For this reason, it has not been deemed necessary to conduct background monitoring of ambient concentrations of VOCs/air toxics.'

The EPA advises that incremental assessment (project contributions only) are applicable where it can be reasonably demonstrated that existing ambient levels are low and there are no other significant emission sources in close proximity to the proposed Project which emit the same substances. Based on other sites and activities undertaken between the proposed Project and nearby receptors, there are likely to be other emission sources that also contribute to potential localised air quality impacts.

No comprehensive assessment characterising the potential impacts from all emissions associated with other major VOC sources in the locality of the proposed Project is available for the EPA's review.

Potentially significant VOCs emission sources not included in the AQGGA include, but may not be limited to:

- Tanks - of other operators in the vicinity of the proposed Project; and
- Large steelmaking operations in the vicinity of the proposed Project - coke ovens and metal coating.

The AQGGA should be revised to comprehensively characterise and assess emissions associated with the proposed Project as a whole, in conjunction with other emission sources located in close proximity to the proposed Project. Where toxic air pollutants are emitted from other sites, in significant quantities and in close proximity to the proposed Project, these additional emissions should be assessed on a cumulative basis.

Sources of information on emissions in the Illawarra include, but may not be limited to:

- *Air Quality Trends in the Illawarra* (OEH, 2015), available at: [www.epa.nsw.gov.au/esdsmoky/illawarra-air-quality.htm](http://www.epa.nsw.gov.au/esdsmoky/illawarra-air-quality.htm)
- *The NSW Air Emissions Inventory* - information on natural and human-made sources of air emissions, available at: [www.epa.nsw.gov.au/air/airinventory.htm](http://www.epa.nsw.gov.au/air/airinventory.htm)
- *The NSW air quality monitoring network* - continuous, high quality measurements of air pollutant concentrations at Wollongong, Kembla Grange and Albion Park South, available at: [www.environment.nsw.gov.au/aqms/aqi.htm](http://www.environment.nsw.gov.au/aqms/aqi.htm)
- *National Pollutant Inventory* - information on emissions reported annually by industrial facilities, available at: [www.npi.gov.au](http://www.npi.gov.au)
- *Particle speciation and source apportionment studies* - sampling of particles and analysis of their composition by ANSTO at Warrawong, available at: [www.research-data.ansto.gov.au/collection/401](http://www.research-data.ansto.gov.au/collection/401)
- *National shipping air emissions inventory* - an inventory of ship engine exhaust emissions and fuel consumption in Australian ports, available at: [www.epa.nsw.gov.au/resources/epa/presn-exhaustemissions.pdf](http://www.epa.nsw.gov.au/resources/epa/presn-exhaustemissions.pdf); and
- *Industry air quality monitoring* - the EPA requires a number of industries in the Illawarra to conduct air quality monitoring as a condition of their environment protection licence. Each licence is available on the EPA's public register at: [www.epa.nsw.gov.au/prpoeoapp/](http://www.epa.nsw.gov.au/prpoeoapp/), with monitoring requirements generally contained in Condition 'M2'. As well as monitoring their emissions, an EPA licence holder may be required to monitor the surrounding ambient air, to measure the pollutant concentration in the existing environment plus pollutants emitted from their activity. Across the Illawarra, there are approximately 110 industry ambient air quality monitoring stations operating as a result of a licence condition. Licence holders who undertake ambient air quality monitoring under a licence condition must make pollution monitoring data available in response to a specific request.

### Speciation of fuel

The US EPA TANKS software program has been used to estimate total VOCs emissions from the storage tanks for each fuel type to be stored at the proposed Project. Storage tank emissions have been speciated into hydrocarbons of interest using the US EPA's SPECIATE software.

Where possible, tank emissions should be characterised based on measured vapour phase speciation data for each product (mixture) as products can vary between refiners/markets. The speciation profile used must also reasonably reflect Australian fuel characteristics and standards. For example, the speciation profile used for unleaded petrol in the assessment assumes 0.755% benzene whereas it could be as high as 1% as per Australian fuel standards.

The Proponent should obtain speciation profiles for the proposed products where possible and revise the AQGGA accordingly. If product specific profiles are not available, the Proponent must demonstrate that the US speciation profiles used in the assessment reasonably reflect products to be handled at the proposed Project.

### Assessment of peak impacts

Section 5.4 of the AQGGA indicates that the assessment was conducted on the assumption that emissions occur 24 hours per day, 365 days per year. Appendix A of the AQGGA provides a summary output of the emissions model (TANKS), which indicates emissions were estimated on an annual basis. Emissions rates

applied to the dispersion model were grams per second. As such it is likely that annual emissions were smoothed evenly across the model year.

The EPA advises that smoothing emissions throughout the model year is not an appropriate assessment methodology when assessing peak 1-hour impacts from emissions that will vary temporally.

The AQGGA should be revised to ensure that peak emissions are assessed for the proposed Project and neighbouring emission sources, without smoothing based on annualised variables.

### Justification of model meteorology

#### Representativeness of model meteorology is not adequately demonstrated

The meteorological data used in dispersion modelling is of fundamental importance as it drives the transport and dispersion of the air pollutants in the atmosphere. For a detailed assessment, the EPA's Approved Methods requires site representative data to be correlated against a longer duration meteorological data set. Analysis of wind speed data between 2005 and 2009 at Bellambi and Wollongong Airport is provided.

The dispersion modelling was undertaken for the year 2009. It is stated that:

- 'Long term wind speed analysis of Bellambi monitoring site shows that wind speeds from the years 2008 and 2009 fitted best with the long term averages;' and
- 'It is noted that the Port Kembla Harbour automatic weather station (Site Number 68253) was commissioned post- 2009 and as such, this data was not able to be incorporated within the meteorological modelling. However, annual wind roses for this location compare well with the CALMET generated wind roses presented in Figure 6.4.'

The statistics as presented, do not confirm 2009 as a representative year for dispersion modelling. The EPA notes that the Port Kembla wind roses referred to in the report have not been provided. In addition, the statement that the 2008/2009 wind data best fits with long term averages is based on qualitative assessment alone.

The AQGGA should be revised to include the results of the analysis demonstrating year 2009 is a representative year.

#### CALMET model evaluation not adequate

It is important to undertake an evaluation of the CALMET modelling results as the CALMET module requires careful consideration of input data, modelling domain, grid resolution, and the seven critical parameters (TERRAD, RMAX1, RMAX2, R1, R2, IEXTRP and BIAS).

The AQGGA presents a summary of the 2009 CALMET data extracted for Port Kembla.

Observed wind fields for Wollongong Airport are provided in the AQGGA as Appendix C. Observed wind fields for Port Kembla are not provided. Appendix C shows some potentially significant differences between modelled and observed wind fields. The AQGGA does not demonstrate the suitability of the CALMET generated data.

An adequate evaluation of the CALMET generated data is always important but particularly necessary where observational data assimilation requires the user to make 'several critical choices which can significantly affect the final outcome of the model runs.'<sup>1</sup>

<sup>1</sup> OEH (2011) Generic guidance and Optimum Model Settings for the CALPUFF Modelling System for Inclusion into the 'Approved Methods for the Modelling and Assessment of Air Pollutants in NSW, Australia' March 2011, Prepared for NSW Office of Environment and Heritage, Prepared by Jennifer Barclay and Joe Scire, TRC Environmental Corporation

The AQGGA should be revised to include an evaluation of the CALMET generated meteorology data to demonstrate it is suitable for use in CALPUFF.

Assessment of impacts at and beyond boundary of the facility for combined project emission sources

Stage three has been modelled to represent maximum throughput and emissions from the proposed Project. Results have been presented for Xylene, which had the highest emission rate of the VOCs entered into the model. The EPA notes:

- Predicted impacts from the storage tanks and truck loading operations have been presented separately
- Total predicted impacts from the project have not been provided; and
- Predicted impacts have been presented at the nearest non-industrial sensitive receptors and not at and beyond the boundary of the project premises as is required for air toxics and individual odorous pollutants such as xylene in the EPA's Approved Methods.

The EPA notes that one of the designated receptors is the entry/exit to the site and notes that predicted impacts at this receptor are at a minimum one order of magnitude above predicted impacts for the other non-industrial receptors for both the storage tanks and truck unloading operations. As such, a clearer indication of total combined tanks and VRU predicted impacts at and beyond the boundary of the proposed Project is required.

The AQGGA should be revised to include a summary of total predicted impacts for each of the modelled air toxics and individual odorous pollutants at and beyond the boundary of the premises in tabular format.

Assessment of odour impacts at nearest sensitive receptors

As for air toxics, the predicted odour impacts have been provided at the nearest non industrial receptors to the Port Kembla port complex. Predicted impacts of 2OU at the entrance to the proposed Project are anticipated. It is stated that '...it is considered valid to inspect the dispersion modelling contours presented to assess potential occupational exposures for those working outside the wider port complex, providing the maximum predictions presented are compared with occupational exposure criteria...'

The EPA notes the EPA's Approved Methods defines sensitive receptors as 'a location where people are likely to work or reside' (underlined for emphasis). In addition, offensive odour provisions under Section 129 of the POEO Act apply at and beyond the boundary of scheduled premises. It is recommended that the assessment is revised to assess potential for impacts at and beyond the boundary to determine if management and mitigation options are required.

The Proponent should consider predicted odour impacts at and beyond the boundary of the facility, and, if required proposed odour mitigation measures.

Justification for the control efficiency of the proposed Vapour Recovery Unit

Under the *Protection of the Environment Operations (Clean Air) Regulation 2010* (Clean Air Regulation) a vapour recovery or disposal system is required for large storage tanks in the Sydney, Newcastle or Wollongong Metropolitan Area where the volatile organic liquid to be stored has a vapour pressure of or below 75 kilopascals.

In section 5.6 of the AQGGA, it is stated that 'potential emissions from the VRU servicing the RTL were estimated using an assumption that the VRU will operate at all times during truck loading and will have a control efficiency adequate adsorb [sic] 99.5% of potential VOC emissions from this process.'

Emission parameters for the proposed VRU are claimed to be based on those provided in a prior AQGGA for a bitumen storage facility in Sydney, the SPECIATE based speciation profile and a recent journal article<sup>2</sup> although specific calculations are not provided. The EPA notes that:

<sup>2</sup> A, P and H (2015) Hydrocarbon Release During Fuel Storage and Transfer at Gas Stations: Environmental and Health Effects

- Justification for the proposed control efficiency has not been provided. The EPA notes that the low predicted impacts from tank unloading operations are predicated on the VRU achieving high control efficiencies
- No supporting information such as performance specifications has been provided to demonstrate that the proposed VRU will meet the requirements of the Clean Air Regulation. Note, that the EPA considers that a contemporary VRU operating in a proper and efficient manner should be able to achieve significantly lower emissions than required under the regulation, and this level of performance is expected for a new facility; and
- No information is provided regarding how the VRU is proposed to be monitored to ensure high control efficiencies and compliance with Clean Air Regulation design and regulatory requirements.

The AQGGA should be revised to include additional information about the performance of the proposed VRU including, but not limited to, manufacturer's performance specifications and proposed monitoring regime.

#### Assessment of all relevant pollutants

Tables 4.1 and 4.2 of the AQGGA specify the impact assessment criteria for the pollutants assessed, including NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, Benzene, Toluene, Xylenes, Ethylbenzene and PAHs. The EPA notes:

- The annual criteria for NO<sub>2</sub>, and the ten minute average and annual average criteria for SO<sub>2</sub> were not included in the table. It is unclear whether assessments were conducted for these averaging periods
- PM<sub>2.5</sub> has not been included in the assessment. The EPA notes that while the NEPM reporting standard for PM<sub>2.5</sub> was recently adopted in December 2015 an advisory reporting standard was in place at the time of preparation of the AQGGA; and
- There is no discussion as to whether an ozone impact assessment was required or not required utilising the EPA's tiered assessment framework guidance.

The Proponent should confirm whether NO<sub>2</sub> and SO<sub>2</sub> were assessed for all averaging periods. Justification needs to be provided regarding assessment of ozone and PM<sub>2.5</sub>.

#### Human Health Risk Assessment

The Human Health Risk Assessment accompanying the EIS relies upon information in the AQGGA. The Human Health Risk Assessment should be revised following the revision of the AQGGA.

### **5. Noise and vibration**

The EPA has undertaken a review of the EIS and accompanying Noise Impact Assessment (NIA) and provides the following comments which require either clarification or additional information is required.

#### Construction noise

The EIS states that construction may include piling of pre-cast driven concrete piles for tanks. The EIS does not contain any further information on any proposed piling. The EIS states that noise and vibration management will be addressed and incorporated into the Proponent's CEMP through the development of a Noise Management Plan. It is therefore important that additional information on any proposed piling be incorporated into the proposed CEMP.

Additional information to be addressed in the CEMP includes:

- Selection of the piling method
- Sufficient justification for the method selected
- Assess the feasibility of alternative quieter methods or equipment
- An assessment of piling noise in accordance with the *Interim Construction Noise Guideline* (DECC, 2009) available at <http://www.epa.nsw.gov.au/noise/constructnoise.htm>. If any high noise activities are to be undertaken, they should be factored into the quantitative assessment by adding 5 dB to the predicted levels

- An assessment of vibration in accordance with the *Assessing Vibration: A Technical Guideline* (DEC, 2006) available at <http://www.epa.nsw.gov.au/noise/vibrationguide.htm>
- A description of all feasible and reasonable measures to minimise noise and vibration impacts.

Past piling activities have proven to be annoying to occupants of nearby industrial premises in Port Kembla. The Proponent should consult with occupants of industrial premises prior to finalising the proposed CEMP. During construction, the Proponent should also regularly update the occupants of industrial premises regarding noise levels and hours of work. If approved, the CEMP should support any application for a scheduled development work licence.

### Operational noise

Considering the proposed Project location, the EPA presents the Proponent with two options in addressing the key issues where either clarification and/or additional information is required. These options include but are not necessarily limited to the following:

#### Option 1

That the Proponent commit to the project being designed, built and operated to not exceed an operational noise level of  $L_{Aeq(15min)}$  36 dB at the nearest residential receiver during F class stability category conditions. TQ must also commit for the life of the project to not exceed maximum  $L_{eq}$  sound pressure levels, at one metre from each piece of equipment, of:

- 87 dBA for each of the four marine loading arms
- 94 dBA for the air compressor
- 92 dBA for each of the loading and product pumps; and
- BA for the vapour recovery unit pump.

#### Option 2

That the Proponent:

- Provides more detail to support noise monitoring results, such as:
  - noise logger model and date of last calibration
  - photographs of monitoring equipment in place
  - detailed descriptions of monitoring locations
  - plots of weather data on the noise monitoring graphs; and
  - an assessment background levels.
- Further explains the method used to estimate existing industrial noise levels
- Provides third octave sound power levels for each modelled source
- Provides the number and speed of vehicle movements modelled in each 15 minutes to explain how the sound power levels were used
- Specifies which source type from the DEFRA database was used for idling trucks
- Explains the source heights used in modelling, describing the actual equipment which will be used
- Explains why additional sources such as pumps on the berthed ship and the other three marine loading arms were not modelled, or provides model results including all significant noise sources
- Explains why F class stability category conditions were not modelled based on local data, or provides model results including F class stability category conditions
- Provides operational noise results including all applicable modifying factor adjustments, and an assessment of low frequency noise in accordance with the INP; and
- Provides result tables referring to the correct noise catchment areas and criteria. In the result tables provided, noise catchment areas A and C appear to have been confused.

## **6. Water Quality**

The EPA has undertaken a review of the EIS and accompanying Surface Water Assessment (SWA) and Soils and Groundwater Impact Assessment (SGIA) and provides the following comments which require either clarification or additional information is required.

### Erosion and Sediment Control

The proposed Project has the potential to impact surface water, groundwater and soils during the construction phase. The EIS states that soil and water management will be addressed and incorporated into the Proponent's CEMP through the development of an Erosion and Sediment Control Plan. The Proponent should ensure that any sediment and erosion control measures to be implemented are designed, constructed and maintained in accordance with guideline document *Managing Urban Stormwater – Soils and Construction* (Landcom, 2004) available at:

[www.environment.nsw.gov.au/resources/water/BlueBookVol1.pdf](http://www.environment.nsw.gov.au/resources/water/BlueBookVol1.pdf). The Erosion and Sediment Control Plan should also address the risks associated with disturbance of any Acid Sulfate Soil encountered during the construction phase. If approved, the CEMP should support any application for a scheduled development work licence.

### Water Quality Objectives

The EIS has identified three Water Quality Objectives for Port Kembla harbour, specifically primary contact recreation, secondary contact recreation and visual recreational use. The *Illawarra Water Quality Objectives* (DECCW, 2006) available at: <https://www.environment.nsw.gov.au/ieo/LakeIllawarra/report-02.htm> identify two objectives for Port Kembla harbour, specifically aquatic ecosystems and visual amenity. The Proponent should detail the relevant Water Quality Objectives for Port Kembla harbour and demonstrate how the proposed Project will be designed and operated to restore or maintain these requirements.

### Discharge to Waters

The EIS has identified hydrocarbons, total suspended solids and pH as typical pollutants which may be discharged from the proposed Project via an oil water separator. Where a discharge to waters is proposed, the Proponent should provide a justification for any discharge. This should include a description of best management practices to be used, and an assessment of what wastewater can be beneficially reused (for example, in fire water tanks) in preference to being discharged to waters.

If a discharge is unavoidable, the Proponent should undertake a wastewater characterisation to identify pollutants likely to be present in the water discharge at levels that are not trivial. Trivial relates to both the concentration of the pollutant as well as its risk to the environment. An assessment of the likely impacts of discharges on the waters and the proposed mitigation, monitoring and management measures that will be installed, operated and maintained should also be provided. Treatment in addition to an oil water separator may be required to remove pollutants likely to be present in the water discharge at levels that are not trivial.

The existing sediment basin on Site 3 currently discharges treated stormwater from the neighbouring GrainCorp Terminal. The EIS states that this will be replaced with an underground gross pollutant trap and an oil and grease treatment system. The Proponent should outline the measures that will be installed, operated and maintained to ensure continued access to this discharge point.

The EIS states that the proposed Project is separated from Tom Thumb Lagoon by the Gurungaty Waterway causeway. The causeway includes culverts, which allow the incoming tide to enter Tom Thumb Lagoon and the outgoing tide to enter Port Kembla Harbour. Tom Thumb Lagoon is a sensitive estuarine environment, which features a remnant Coastal Saltmarsh endangered ecological community and tidal mudflats. It is therefore vital that any discharge to waters be designed and operated to protect the relevant Water Quality Objectives for Port Kembla harbour and its sensitive environments.

### Spill Containment

The Proponent should identify all measures to address the potential for spills and leaks and any spill management contingency measures that may need to be implemented, including but not limited to:

- Information to demonstrate that any pipes, pipe fittings and pumps will be arranged in such a way that no spills or leaks can escape the containment bund and that all pumps will still operate if the bund is

full. Any pipes connected to the storage tanks should be located over the containment bund and sited above ground and properly supported to make inspection and repair easier

- Information to demonstrate that the shoreline pipeline across Gurungaty Waterway will be arranged in such a way that no spills or leaks can escape the pipeline. The pipeline should be located over the containment bund and properly supported to make inspection and repair easier
- Details on the proposed routine inspection and maintenance program for any bunds, sumps, pipes, pipe fittings and pumps; and
- Information to demonstrate that the net capacity of gantry containment provides sufficient containment to hold tanker contents.

### Firefighting Foams

The EIS states that a detailed Fire Safety Study and fire system design will be undertaken to determine optimal type and methods for collection and dewatering of foams within bunded areas. It is therefore important that additional information on any proposed firefighting foams be incorporated into the proposed Fire Safety Study.

Additional information to be addressed should include:

- Selection of the firefighting foams to be handled, stored or used
- Justification for the foams selected
- Characterisation of any potential discharges to surface or groundwater waters
- An assessment of the likely impacts in the event of any discharge of contaminated fire water; and
- A description of all feasible and reasonable measures to minimise any discharge of contaminated fire water.

The proposed firefighting foam should not contain perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

## **7. Traffic and Transport**

The EPA has undertaken a review of the EIS and accompanying Traffic Impact Assessment (TIA) and provides the following comments which require either clarification or additional information is required.

### Delivery of Ethanol and Biodiesel

The EIS states that the proposed Project will import bulk liquids by ship, store the liquids at the premises and distribute the liquids by road. The EIS also states that biodiesel and ethanol will be delivered by road. It appears that the TIA has not made predictions of the traffic volumes likely to be generated by the delivery of biodiesel and ethanol by road. The Proponent should clarify if accurate predictions of the traffic volumes likely to be generated by the proposed Project have been made in the TIA.

### Best Management Practices for Ships

The EIS makes predictions about expected noise levels from ships at Berth 104. The best way to manage noise from ships at berth is to engage operators with quieter ships and exclude poorly performing ships. The Proponent should include the development and implementation of a shipping noise auditing program to confirm vessels at berth achieve noise standards for shipping activities.

The Proponent should also include a feasibility assessment of best management practices for vessels at berth, including but not limited to:

- The provision of shore power; or
- The use of low sulphur content fuel.

### Best Management Practices for Diesel Vehicles

In its SEARs, the EPA required the EIS to include a feasibility assessment of best management practices for all on-road diesel trucks associated with the proposed Project. It appears that such an assessment has not been made. The Proponent should include the development and implementation of a truck noise auditing program to confirm trucks achieve noise standards for engine brake noise.

All on-road diesel trucks associated with the project should:

- Conform with relevant and current emission standards as prescribed in Australian Design Rules for heavy-duty engines and vehicles (EURO IV); or
- Where the vehicle is older than the 2006 model year (that is, EURO I, EURO II or EURO III standards), the vehicle should be fitted with a diesel exhaust treatment device.
- Consider emission reduction options in the diesel NEPM.

