

Our reference: EF13/2741:DOC14/206077-03:CP
Contact: Craig Patterson (02) 4224 4100

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

Dear Sir/Madam

**KURNELL REFINERY CONVERSION
DEMOLITION AND REMOVAL OF REDUNDANT INFRASTRUCTURE (SSD 5544 MOD 1)
NOTICE OF EXHIBITION**

I am writing in reply to your letter to the Environment Protection Authority (EPA) dated 28 November 2014 seeking comments on the above modification application. This included a Statement of Environmental Effects (SEE).

On the basis of a review of the information submitted in the SEE and taking into consideration the existing approval conditions for the conversion project (SSD 5544), the EPA provides its comments on this application in the attachment to this letter (Attachment 1). These comments relate to the following sections of the SEE:

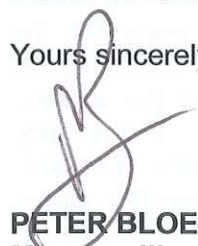
- General comments on the SEE
- Legislation, Planning Policy and Approvals
- Soil, Groundwater and Contamination
- Waste Management
- Surface water, Wastewater and Flooding
- Noise and Vibration
- Air Quality and Odour

It should be noted EPA's comments relate to the development as proposed in the documents and information currently provided to EPA. In the event that the development is modified either by the applicant prior to the granting of consent or as a result of the conditions proposed to be attached to the consent, it will be necessary to consult with EPA about the changes before the consent is issued. This will enable EPA to make additional comments and ensure consistency with the Environment Protection Licence and/or the requirements of the Protection of the Environment Operations Act 1997.

The EPA may have further comments on receipt and review of any additional information provided.

Please contact Craig Patterson on (02) 4224 4100 if you have any comments regarding this letter.

Yours sincerely



16/12/14

PETER BLOEM
Manager Illawarra
Environment Protection Authority

Att

ATTACHMENT 1

General comments on the SEE

1. The SEE states the project relates to the demolition, dismantling and removal of redundant infrastructure. This includes demolition of refinery process units and associated infrastructure. There is insufficient information in the SEE to understand the demolition techniques proposed to be used.

The SEE states demolition of refinery process units will involve lowering to ground level where they may be cut up using heavy machinery. It also states that structures will be pushed over and cut up.

Further information is required on the demolition techniques of "*lowering*" and "*pushing over*" to understand potential environmental impacts and the necessary measures to mitigate them. For example, the demolition of tall structures such as the chimneys or Fluidised Catalytic Cracking Units has not specifically been addressed. It is unclear whether top down segmenting techniques will be used or structures may be felled using cutting at ground level or explosives.

2. The nature of the materials that may be contained within structures to be felled should be assessed and documented. This will assist in selecting the most appropriate demolition techniques and the measures required to mitigate any impacts. These materials could include asbestos, crystalline silicas, heavy metals/PAH and residual hydrocarbon products. This information will also assist in waste management (including sorting, reuse, disposal, future grinding and crushing operations) and the development of relevant air monitoring and reporting programs.
3. There is a strong reliance in the SEE on the preparation of a Demolition Environmental Management Plan (DEMP) and supporting subplans including:
 - soil and water management plan
 - contamination management plan
 - air quality management plan
 - asbestos management plan
 - noise and vibration management plan
 - waste and resource management plan

Underpinning these management plans must be clear environmental performance outcomes. The proposed actions must support the delivery of these outcomes. This is not clear from the SEE. The environmental outcomes are defined in the Environment Protection Licence (EPL) and associated Protection of the Environment Operations (POEO) Act 1997. Some are reflected in the project approval SSD 5544. For example, these outcomes include no odours beyond the boundary of the premises, air pollution (including dust) to be prevented/minimised and no pollution of waters (except in accordance with licence requirements).

4. The SEE appears to lack clear connections between the existing requirements for the conversion project approval and those proposed for the demolition project. This demolition project is a modification to an existing project approval. There is an opportunity for plans to be better integrated/consolidated between both projects. It is unclear how some proposed plans for the demolition project relate to existing plan requirements for the conversion project. For example, the Contamination Management Plan and Water Management Plan are requirements of the existing consent. A Soils and Water Management Plan is proposed for the demolition project. The existing conversion project approval also includes a requirement for erosion and sediment control. The SEE does not appear to take into account existing project approval conditions and identify where modifications or new conditions are sought.
5. Given its sensitive location a specific Management Plan should be considered for the removal of the cooling water outlet pipeline in Caltex's right of way and at Silver Beach.

Section 9.6.1.2 states that the removal of the cooling water outlet from below low tide mark would result in the disturbance of sediments within Botany Bay. Given the recent incident involving the discharge of hydrocarbons from this pipe, Caltex will need to consider and implement appropriate management measures to address this issue. The marine growth and associated sediments on top of the pipe may also be impacted by hydrocarbons and will need to be considered.

Section 18.6.2 states that Section 18.7 provided management and mitigation measures to manage the risk of releasing contaminants from the use of plant and equipment within the water column during pipeline removal works. Section 18.7 does not include any management or mitigation measures to this effect. Appropriate measures must be identified to manage identified risks associated with this activity.

Legislation, Planning, Policy and Approvals

6. The SEE states the demolition works are not defined as a scheduled activity under the POEO Act and no licensed emission source has been identified. The EPA reminds Caltex of its general obligations under this Act to prevent pollution of waters, minimise/prevent air pollution where emission source requirements are not specified on a licence.
7. The SEE has assessed the need for other scheduled activities such as *Contaminated Soil Treatment and Crushing, Grinding and Separating* that may be relevant to the demolition works. These are not currently regulated under the existing EPL. If this modification is approved, Caltex should carefully consider the need to apply to vary the licence to include scheduled activities not current listed prior to these activities commencing.

Soils, Groundwater and Contamination

8. The SEE states remediation of the land will not occur. Contaminated land management is currently regulated by the EPA under the EPL and the Contaminated Land Management Act 1997.
9. The SEE states approximately 150,000 tonnes of soil may be excavated during demolition. This soil will be stockpiled and then assessed/classified for backfill in the excavated site. It is unclear from the SEE what the assessment and classification criteria are for use of fill for backfill. It appears to be based on visual and olfactory assessment. The Trigger Action and Response criteria should be defined.

Where material is proposed to be reused onsite, Caltex must undertake an assessment of the suitability of the material to remain onsite and a detailed description of any management measures considered necessary to allow its reuse. The EPA also reminds Caltex that it is an offence to cause land pollution under the POEO Act.

10. Section 9.6.1 states that a potential soil and groundwater impact from the demolition works is contaminants from stockpiles. Whilst the SEE states that the stockpiles would be placed on plastic sheeting and appropriately bunded and managed, it is unclear as to what contingencies measures are proposed to manage the stockpiles during heavy rainfall events which may cause localised flooding at the site. The EPA also reminds Caltex that suitable measures must be implemented for the storage of contaminated material so as not to cause land pollution.
11. Section 9.7.14 refers to an Asbestos Management Plan. This appears to focus on contaminated soils handling. In relation to asbestos management, Caltex must comply with conditions specified in this licence or where no specific conditions are outlined in this licence, Caltex must comply with the POEO (Waste) Regulation 2005. Caltex should also implement an appropriate asbestos monitoring plan during all works associated with the removal, handling and management of asbestos materials.

Waste Management

12. Section 11.7.9 states that a database inventory would be used to record and report all waste streams, volumes and management measures for all waste streams arising through the demolition work. The database should also be used to track all materials reused at the premises including its reuse location, type of waste and classification.

Surface water, Wastewater and Flooding

13. The EPA continues to regulate the premises under an EPL. As the premises are transitioning from a refinery to a distribution terminal, the EPL will be important in regulating this activity over time through limit, monitoring, reporting conditions and pollution reduction programs.
14. The Soil and Water Management Plan needs to be clearly underpinned by the EPL requirements. There is no detail on the monitoring and reporting of water quality data. This could include data required by the EPL. It could also include additional data that may be used to provide confidence to the community that the site is being appropriately managed.
15. The Soil and Water Management Plan must identify appropriate measures that will be implemented to manage impacts on stormwater quality from contaminated soils and stockpiles potential exposed or generated by the demolition/excavation works. As indicated above, measures should include periods of heavy rainfall which may cause localised flooding on the site.
16. Section 12.6.1 states that the main ongoing potential impact on catchment yields following demolition works are on Catchment B where the refinery process units are located. It also states that these areas would be disconnected from the oily water sewer system and some bunding and oily water sewer system connection infrastructure removed. Prior to disconnecting this area from the oily water sewer system, Caltex must ensure that any contaminated water from these areas is managed appropriately so as not to cause pollution of waters.

Noise and Vibration

17. The existing development approval for the conversion project (SSD 5544) includes construction noise limits. The SEE states that these limits are appropriate for assessing demolition works. These limits may be appropriate for the demolition project, however the following should be considered:
 - a) The background noise levels may have changed (reduced) following closure of the refinery and cessation of refinery operations in late 2014; and
 - b) The limits and noise assessment are based on 15 minute averaging periods. Depending on the nature of demolition work, smaller averaging periods may become important for impact noises, for example one minute averaging periods (sleep arousal).
18. The SEE states that there are some predicted noise criteria exceedances during both demolition activities and pipeline removal works at Kurnell wharf and Silver Beach. Caltex must ensure that appropriate respite periods are implemented to minimise potential noise impacts on the Kurnell community and to address any noise complaint(s) associated with demolition activities.

Air Quality and Odour

19. The proposed measures under the Air Quality Management Plan outlined in the SEE do not clearly state the expected environmental outcomes and how they will be achieved. This includes but is not limited to:
 - No odours beyond the premises, prevent minimise dust as per licence requirements.
 - An assessment and statement of compliance against recognised air impact assessment criteria (as specified in the EPA Approved Methods for Modelling and Assessment of Air Pollutants).

- Further work is required on the Various Trigger, Action, Response Procedures to prevent minimise dust. This should include the use of air quality monitoring data; for example, continuous (real time) particle monitoring.
20. The SEE does not clearly describe the locations and type of ambient air quality monitoring that will be undertaken during the entire demolition project and public access to this information. This monitoring is vital in demonstrating to the community impacts are not occurring in residential areas or other sensitive locations neighbouring the premises. Table 14-2 does not appear to mention the type of monitoring that will be undertaken. It only states during adverse weather monitoring will be undertaken during crushing operations. Section 14.7.2 appears to make a recommendation for real time particulate monitoring associated with the crusher start up only. The types of substances should include as a minimum PM₁₀, PM_{2.5} and asbestos. There is a strong focus on the protection of worker health in the SEE from air impacts. Ambient air quality monitoring and the public reporting of this information is also important for the community.
 21. Section 14.6.1.5 of the SEE states "*The majority of asbestos in the infrastructure to be removed would have been removed as part of the decommissioning process, prior to the demolition works*". This is an ambiguous statement. Table 11-1 indicates an estimated 2,000 tonnes of asbestos will be generated from insulation on lines and vessels, refractory and building materials. As stated above further information is required on the demolition techniques. The extent of these materials contained within structures to be felled also needs to be assessed and documented. This will assist in selecting the most appropriate demolition techniques and the measures required to mitigate any impacts. This information will influence further decisions on waste management (including sorting, reuse, future grinding and crushing operations) and the development of air monitoring and reporting programs. There is mention of asbestos monitoring but there is no details of the number and location of these monitors. In developing an appropriate monitoring plan, Caltex should also consider monitoring at suitable locations within the community in addition to any onsite monitoring. This information should be made publically available.
 22. Section 14.6.1.5 makes reference to amending an existing Site Safety Management Plan to manage asbestos during demolition. The relationship of this plan to the proposed Asbestos Management Plan is unclear.
 23. The SEE states a jaw crusher will operate in the last three months of the demolition project at the CLOR site. This will process concrete, aggregates and asphalt. The SEE states it has the potential to result in dust impact on commercial receivers to the south west of the site. An air impact assessment of this operation should be undertaken in accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants to demonstrate compliance with recognised air impact assessment criteria.
 24. Section 14.7.1 refers to odour and VOC monitoring. It is unclear from the SEE whether the odour surveys will include both onsite and offsite surveys. Where Caltex identify odours materials during demolition activities, appropriate surveys should also be conducted offsite to ensure there is not potentially offensives odours emitted from the premises.