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AECOM Services Pty Ltd
Level 21, 420 George Street
Sydney NSW 2000
PO Box Q410
QVB Post Office NSW 1230
Australia
www.aecom.com

+61 2 8934 0000 tel
+61 2 8934 0001 fax
ABN 46 000 691 690

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Pamela Morales
Planning Officer
Industry Assessments
320 Pitt Street
Sydney
NSW 2001

Dear Pamela

Caltex Kurnell Refinery Conversion Project: Tank 101 Demolition Modification (SSD 5544 MOD3)

Thank you sending through submissions on Caltex Refineries (NSW) Pty Ltd's (Caltex) proposed Tank 101 demolition works (SSD 5544 MOD3). Submissions have been received from the following organisations:

- NSW Roads and Maritime Services – submission dated 8 September 2017
- NSW Health – submission dated 11 September 2017
- Office of Environment and Heritage - submission dated 15 September 2017
- Department of Primary Industries - submission dated 19 September 2017
- Sutherland Shire Council – submission dated 20 September 2017
- NSW Environment Protection Authority - submission dated 21 September 2017
- Department of Planning and Environment Hazards Unit - submission dated 21 September 2017
- Ausgrid - submission dated 21 September 2017
- Fire and Rescue NSW - submission dated 21 September 2017
- Safework NSW - submission dated 21 September 2017

NSW Health, NSW Roads and Maritime Services, Office of Environment and Heritage, Sutherland Shire Council, Ausgrid, Fire and Rescue NSW and Safework NSW raised no comments that require a specific response on the proposed Tank 101 demolition works.

NSW Department of Primary Industries (DPI), NSW Environment Protection Authority (EPA) and the Hazards Unit of NSW Department of Planning and Environment (DPE) asked questions or made recommendations. A response to each of these is provided below.

Department of Primary Industries

The submission from DPI requested that "*All groundwater monitoring results should be published in the Annual Review*".

Caltex already report the analytical results of the groundwater monitoring required by the Environment Protection Licence on the annual review for DPE. Caltex will continue to report on these wells in the annual report.

NSW Environment Protection Authority

The submission from the EPA made two comments.

1. Hydrocarbon residues

The EPA commented on the potential presence of residual hydrocarbon residues in Tank 101. The EPA noted that in Section 4.2 of the Statement of Environmental Effects (SEE) for the Tank 101 demolition works it was stated that Tank 101 has already been cleaned and is currently empty

awaiting demolition. The EPA then noted that Section 8.4.1.1 of the SEE indicates that hydrocarbon residues are likely to be present in the tank. Their concern is that the potential presence of hydrocarbon residues may change the conclusions of the air quality, hazard and risk and waste management assessments.

For context it is worth noting that Section 8.4.1.1 of the SEE actually states "…*it is expected that only minor to negligible hydrocarbon residuals would likely be present…*". It can be confirmed that this statement is incorrect and that following further testing there are no hydrocarbon residues remaining in Tank 101.

The tank has been cleaned, with any residues being removed. The tank was then checked for hydrocarbon residues using gas testing which confirmed their absence. Given there are no hydrocarbon residues remaining in the tank, the assessments for air quality, hazard and risk and waste management within the SEE remain valid, and there are expected to be negligible air quality, waste or hazard and risk impacts from the demolition of the tank.

2. Demolition noise

The second EPA comment discusses the potential noise impacts that may occur during the Tank 101 demolition works. The EPA recognises that Caltex have proposed to restrict the Tank 101 demolition works to daytime hours only. They have asked what reasonable and feasible measures would be implemented to ensure that noise from the demolition does not exceed the project approval criteria. The EPA have noted that Caltex intend to implement respite periods for nearby residents during high noise generating works and have noted that Caltex must be able to clearly demonstrate through appropriate noise monitoring that it is complying with project approval noise limits.

The SEE for the Tank 101 demolition works is supported by a Demolition Noise Assessment that includes a number of reasonable and feasible measures (refer to Section 6, Appendix A of the SEE). These measures have been included as management and mitigation measures for the proposed Tank 101 demolition works. These management and mitigation measures are presented in Table 14-1 of the SEE. Measures G1 to G15 in Table 14-1 specifically relate to noise. A number of these measures are currently being implemented for the ongoing demolition works being completed at the Site (as approved under SSD 5544 MOD1). However of particular note for the Tank 101 demolition works are:

- Measure G10 which limits demolition works near 30D Cook Street (i.e. within 500 m) to 7.00am to 6.00pm Monday to Saturday; and
- Measure G15 which commits Caltex to coordinating the Tank 101 demolition works with other nearby demolition works to reduce the potential for cumulative impacts.

In addition measure G12 commits Caltex to ensuring "*that the noise generated by the demolition works does not exceed the criteria defined in Table 2 (from Condition of Consent C16 of SSD 5544) unless the reasonable and feasible noise mitigation strategies outlined within the Demolition Noise and Vibration Management Plan have been implemented. Reasonable and feasible noise mitigation strategies would include appropriate respite periods during particularly noisy or prolonged activities.*"

Noise monitoring is currently undertaken as part of the ongoing approved demolition works and would continue as these works progress. This noise monitoring would be extended to the demolition of Tank 101, should this modification application be approved.

Caltex regularly consult with the community regarding activities undertaken within the Site and have provided specific information to the community (including nearby residents) about the proposed Tank 101 demolition works. This consultation would continue as the demolition of Tank 101 progresses. If respite periods are required these will be agreed with the potentially affected residents.

It should be noted that there is broad community support for the demolition of Tank 101 and that when Tank 102 (the neighbouring tank to the south east) was demolished (as part of the conversion works, SSD 5544), Caltex did not receive any community complaints.

Department of Planning and Environment Hazards Unit

The submission from the DPE made four comments:

1. Program

DPE have asked how the Tank 101 demolition works are being absorbed into the current schedule for the demolition works if there are no increases in staff and the work hours are the same, as outlined in the SEE. They are concerned that the inclusion of the works could compromise safety and therefore they would like further details regarding the demolition program.

Caltex have been planning for the demolition of Tank 101 for over 12 months. In that time the tank has been cleaned, opened (e.g. man hole covers in the top of the tank have been removed) and prepared for demolition. The modification application for the tank's demolition has also been prepared and lodged. The SEE for the modification application states that the demolition works are likely to be completed by the end of 2017. However the ongoing demolition works (MOD1) are now planned to extend beyond this date, with the majority of the demolition works due to be completed by the end March 2018, with certain residual works (e.g. civil works) progressing until July 2018. These timescales are within the limit of the consent for the demolition works (SSD 5544 MOD1) which states that the works must be complete by August 2018.

During the demolition works carried out under SSD 5544 MOD1, Caltex has demolished a number of tanks across the Site. These tanks have been demolished without incident. Similarly Caltex also empties, cleans, removes, rebuilds and commissions new tank infrastructure as necessary on a continuous rotating basis throughout the Site as part of its Turnaround and Inspection (T&I) maintenance program. Caltex has extensive documented procedures which are used routinely during T&I activities. These procedures allow all safety and environmental aspects of the process to monitored and managed.

The final program for the demolition of Tank 101 is dependent on whether and when development consent for its demolition is granted and the requirements of the associated conditions of consent. The development consent for the ongoing demolition works (SSD 5544 MOD1) was assessed and approved with enough contingency to ensure that the Tank 101 demolition works can be completed within the existing limits of that consent with regards to staffing requirements, working hours and overall program. As such the demolition of this one additional tank would not lead to works being rushed or safety being compromised.

The program to demolish the tank would include three main stages:

1. Preparing the works area. This would involve setting up a hot work exclusion zone, completing final checks, confirming access requirements and other preparation activities.
2. Demolishing the tank. This would include cutting a window in the tank for access, removing the roof, cutting the tank to grade and removing the tank floor.
3. Demobilising and cleaning the tank compound.

Caltex's current program seeks to obtain development consent for the Tank 101 works by the end of October 2017 and complete the demolition in November and possibly early December 2017. However this program is dependent on when and if development consent is granted.

2. Tank cleaning

DPE have requested further information on the method used to clean Tank 101, whether the tank is gas free and whether the adjoining pipework has been isolated and purged of residual vapour. They have asked for further information on the current status of the tank and associated pipework with regard to residual refinery product and what verification methods would be applied prior to shearing.

The tank has been cleaned using high pressure water and checked for hydrocarbon residues using gas testing. As part of this process any remaining hydrocarbon residues have been removed. The tank is currently decommissioned, open to atmosphere (e.g. man hole covers have been removed) and ready for demolition. The relevant pipework has been air gapped and unbolted. Both the tank and the relevant pipework have been in this condition for over 6 months and have not been used for approximately 12 months. There are no hydrocarbon residues or vapours remaining in the tank or relevant pipework. As such the tank and relevant pipework are ready for demolition.

3. Fire water system

DPE identified that there was "*no information within the SEE pertaining to the removal and isolation of fire water system around Tank 101*". They asked that details be provided of "*what measures will be in place to ensure that the fire system and fire fighting will not be compromised throughout the demolition.*"

The fire water system would not be affected by the Tank 101 demolition works. No parts of this system would be removed or altered and therefore the fire water system would not need to be isolated. The fire water system would remain place and be ready for use as required.

4. Movement of heavy vehicles

DPE have asked what methods "*will be employed to ensure that the movement of heavy vehicles does not encroach hazardous zones and are restricted to the demolition working areas.*"

The Kurnell Terminal is a large site with numerous sealed and unsealed roads. These roads run throughout the Site and allow easy access for large vehicles and construction/demolition plant.

The hazardous zones at the Site are clearly marked and many of these areas have high containment bunds which would restrict vehicle access.

Management and mitigation measure H2 commits vehicles working on the Tank 101 demolition works (and the conversion, demolition and ACS management works) to only travel on designated roads where possible. It also limits the speed that vehicles can travel to be in line with the existing speed limits within the terminal site. As noted in management and mitigation measure I2, a Traffic Management Plan (TMP) has been developed for the demolition works, which amongst other things, requires that Caltex have designated routes for demolition traffic and defined access points to the Site and the demolition works area, as well as designated truck turning areas, and areas for parking, loading, and unloading. The TMP also outlines speed limits for vehicles involved in the demolition works.

These measures and the TMP form part of the Demolition Environmental Management Plan (DEMP) for the demolition works. The DEMP was approved by DPE in September 2015 and has been implemented by Caltex throughout the demolition works.

In addition to these requirements, Caltex implements a comprehensive Permit to Work (PTW) system, and uses Safe Work Method Statements (SWMS) and Job Hazard Analyses (JHA), as well as Hazardous Area Classification drawings and equipment rated in accordance with zoning requirements that follow the Australian Standard for Hazardous Areas. All of these systems would continue to be implemented by Caltex personnel during the Tank 101 demolition works.

Further detail on three key controls is provided below:

- All Caltex personnel involved with all aspects of the conversion and demolition works undergo seven day training to understand the specific risks associated with the decommissioning and demolition works. A further three day course is implemented for all Caltex personnel involved with the demolition works to understand their roles in implementing the unique control measures that are specific to these works.
- As per the process used during the operation of the terminal, only Caltex personnel can issue a PTW for contractor activities on the Site, including for all the demolition works. All demolition contractors undergo Permit Receiver Training, detailing their roles and responsibilities when receiving a permit as well as Caltex's expectation on when and for what a permit is required. All permits include a Job Hazard Analysis and/or Safe Work Method Statement, detailing the hazards and precautions required to carry out the permitted work.
- For work in a Hazardous Area, specific hot work permits are used, including the need for stand-by personnel. Control of ignition sources is of paramount importance in these areas and the required control measures are detailed on the permit. All contracting personnel participating in an activity sign onto the hot work permit. The hot work permit receiver is trained so that they understand the hazards and control measures associated with the activity.

All contractors also undergo induction training which has been developed specifically for the demolition works. During this training, the controls for the demolition works, and the specific hazards associated with each Hazardous Area, are discussed.

The Tank 101 demolition works would be completed within the Tank 101 bunded area. Vehicles would drive to the tank along internal roads to a designated access point into the bunded area. This access point has been created by removing a small section of the bund along its north eastern edge. Demolition plant and trucks would enter and leave the bund at this point. Tank 101itself has been cleaned, open to the atmosphere and is ready for demolition.

By following the requirements of the PTW procedures, the DEMP, using the designated roads throughout the Site, restricting work to the Tank 101 bunded area, and maintaining speed limits, Caltex are confident that sufficient controls are in place to ensure that heavy vehicles would not affect hazardous areas or result in increased risks to the terminal, its staff, the local community or the environment.

Conclusion

A number of submissions on the proposed Tank 101 demolition works have been reviewed by Caltex. Where comments have been raised these have been addressed in this letter. The submissions and the responses provided do not require any changes to the proposed Tank 101 demolition works or the proposed management and mitigation measures.

Given the responses above and the broad support from the community for the proposed works, Caltex requests that the modification application for SSD 5544 MOD3 is swiftly assessed and favourably determined.

Yours faithfully

William Miles
Associate Director - Environment
william.miles@aecom.com

Mobile: +61 451966011
Direct Dial: +61 2 8934 0544
Direct Fax: +61 2 8934 0001

cc: Craig Collard - Caltex
Steve Grant - Caltex