5 September 2011

Caltex Jet Fuel Pipeline Upgrade Project

The Proposal

The proposal is to upgrade the existing Caltex infrastructure to supply jet fuel to Sydney Airport. The project includes:

- Kurnell Refinery works - installation of new pumps, coalescer filters & associated instruments and a new pigging station;
- Kurnell B Line - replacement of around 1.5km of piping between the refinery and Caltex's wharf on the southern side of Botany Bay; and
- Banksmeadow terminal - installation of new booster pumps, piping modifications and an electrical switch room.

Construction works would be undertaken concurrently over a period of 9-10 months.

Delegation to the Commission

The Director General of the Department of Planning and Infrastructure (the Department) referred the application to the Planning Assessment Commission for determination as it meets the Ministerial delegation issued on 28 May 2011 because the Proponent has declared a reportable political donation.

The Commission consisted of Ms Janet Thomson (chair) and Mr Joe Woodward.

The Director General's Assessment Report

The proposed project received a total of 13 submissions, 9 from public authorities and 4 from the general public. The Department identified the key issues were:

- Potential hazards and risk,
- Noise and vibration,
- Soil contamination; and
- Water contamination.

Other minor issues included flora and fauna, air quality, Aboriginal and non-Aboriginal heritage, greenhouse gas emissions, transport, socio-economic impacts and cumulative construction impacts.

The Department's assessment report canvassed the key issues extensively and concluded that the proposal would improve the safety, efficiency and reliability of jet fuel supply from the Caltex Refinery to Sydney Airport. Potential environmental impacts can be mitigated or managed to meet relevant statutory environmental criteria. The recommended conditions of consent together with the safeguards and recommendations of the EA and Preliminary Hazards Analysis will ensure the project will not pose an unacceptable risk to the surrounding area and be implemented at acceptable level of environmental performance.

COMMISSION SECRETARIAT
Level 13, 301 George Street SYDNEY, NSW 2000
GPO BOX 3415, SYDNEY, NSW 2001
TELEPHONE (02) 9383 2100 FAX (02) 9299 9835
pac@pac.nsw.gov.au

Meeting with the Department of Planning and Infrastructure

On 2 September 2011 the Commission met with Ms Felicity Greenway, Ms Lilia Donkova-Vassileva and Mr Andrew Hartcher from the Department for a briefing on the proposal. The focus of the meeting was to seek clarification on the issues of noise, risk level, potential odour from contaminated soil, and spill management.

In response to the Commission's question about risk level the Department advised that there was an error in the report (page 12), ie the "800,000 to 1" and this should be deleted. Thus the risk level should read "… site boundary is $0.08x10^{-6}$ a year, and negligible at the terminal site…"

Commission's Comments

The Commission has considered the Department's assessment report and associated documents, including the recommended conditions of consent. The Commission found the Department has carried out a thorough assessment of key issues raised in submissions.

Following discussion with the Department on the issues of potential odour arising from contaminated soil and spill management, the Commission considered two additional conditions should be included to ensure these issues will be appropriately managed. The additional conditions are:

Schedule 3

19(f) detail the measures that would be put in place to ensure residents are not subject to offensive odour;

19(g) detail the measures that would be put in place to manage and contain potential spills during cleaning and commissioning of the pipeline;

The Commission also required a modification to Condition 2 in Schedule 4 to ensure the relevant local councils will be notified of any exceedance of the approval criteria. Condition 2 should read:

2. As soon as practicable after detecting an exceedance of the criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department, relevant agencies and relevant local councils of the exceedance/incident.

Commission determination

The Commission considered the Department's recommendation to approve the application is reasonable. Consent is granted subject to conditions in Attachment 1.

Ms Janet Thomson
Member

Mr Joe Woodward
Member

Attachment 1

Instrument of Approval

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

Under the Minister for Planning and Infrastructure's delegation of 28 May 2011, the Planning Assessment Commission of New South Wales approves the project application referred to in Schedule 1, subject to the conditions in Schedules 2 to 4.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

Janet Thomson
Member of the Commission

Joe Woodward
Member of the Commission

Sydney 5 September 2011

SCHEDULE 1

Application Number:	11_0004
Proponent:	Caltex Refineries (NSW) Pty Ltd
Approval Authority:	Minister for Planning and Infrastructure
Land:	Kurnell Refinery - Lot 25 DP776328, Lot 570 DP752064, Lot 283 DP752064, Lot 1 DP132055, Kurnell Wharf - Lot 3 DP1165618, Kurnell Right of Way - Lot 122 DP8135, Lot 123 DP8135, Lot 124DP8135, Lot 125 DP8135, Lot 77 DP8135, Lot 78 DP8135, Lot 79 DP8135, Lot 43 DP8135, Lot 44 DP8135, Lot 45 DP8135, Lot 46 DP8135, Lot K DP362655, Lot F DP361103, Lot G DP361103, Lot B DP338897, Lot H DP362655, Lot J DP362655, Lot D DP 361103 and Banksmeadow Terminal - Lot 1 DP1050144.
Project:	Caltex Jet Fuel Pipeline Upgrade Project

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DEFINITIONS

AHD	Australian Height Datum
BCA	Building Code of Australia
CEMP	Construction Environmental Management Plan
Council	City of Botany Bay Council and Sutherland Shire Council, unless referred to separately
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
OEH	Office of Environment and Heritage
Department	Department of Planning and Infrastructure
Director-General	Director-General of Department of Planning and Infrastructure, or delegate
EA	Environmental Assessment titled *Environmental Assessment: Kurnell B Line Upgrade*, prepared by URS Australia Pty Ltd dated 14 April 2011, the Response to Submissions Report titled *Submissions Report – Kurnell B Line Upgrade* prepared by URS Australia Pty Ltd dated 28 June 2011 and the *Caltex Construction Noise & Vibration Assessment of Jet Fuel Pipeline*, prepared by Renzo Tonin & Associates (NSW) Pty Ltd dated 2 August 2011
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPL	Environmental Protection Licence
Evening	The period from 6pm to 10pm
Feasible	Feasible relates to engineering considerations and what is practical to build
KBL	Kurnell B Line
Land	The whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Minister	Minister for Planning and Infrastructure, or delegate
NOW	Department of Primary Industries – NSW Office of Water
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Project	The development as described in the EA
Proponent	Caltex Refineries (NSW) Pty Ltd, or its successors in title
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements.
RTA	Roads and Traffic Authority
Site	The land referred to in Schedule 1 and shown with a red line on the plans in Appendix A
SPC	Sydney Ports Corporation
Statement of Commitments	The Proponent's commitments for the project in Appendix B
WorkCover	WorkCover NSW

SCHEDULE 2
ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation or decommissioning of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
   (a) EA;
   (b) project plans (see Appendix A);
   (c) statement of commitments (see Appendix B); and
   (d) conditions of this approval.

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
   (a) any audits, reports, plans, programs, strategies, studies or correspondence that are submitted in accordance with this approval; and
   (b) the implementation of any actions or measures contained in these audits, reports, plans, programs, strategies, studies or correspondence submitted by the Proponent.

Management Plans/Monitoring Programs

5. With the approval of the Director-General, the Proponent may:
   (a) submit any management plan or monitoring program required by this approval on a progressive basis; and
   (b) combine any management plan or program required by this approval with any similar management plan or program that have been approved under previous consents or approvals.

Structural Adequacy

6. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, on the site are constructed in accordance with the relevant requirements of the BCA.

   Notes:
   - Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
   - Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.

Demolition

7. The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601:2001: The Demolition of Structures, or its latest version.

Protection of Public Infrastructure

8. The Proponent shall:
   (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and

(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

Operation of Plant and Equipment

9. The Proponent shall ensure that all plant and equipment used for the project is:
   (a) maintained in a proper and efficient condition; and
   (b) operated in a proper and efficient manner.

End of Schedule 2

SCHEDULE 3
SPECIFIC ENVIRONMENTAL CONDITIONS

HAZARDS AND RISK

Pre-Construction Studies

1. At least one month prior to the commencement of construction of the proposed project (except for construction of those preliminary works that are outside the scope of the hazard studies), or within such further period as the Director General may agree, the Proponent shall prepare and submit for the approval of the Director General the studies set out under subsections a) to d) below, namely:
   (a) a **Fire Safety Study** for the proposed project. This study shall cover the relevant aspects of the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines' and the New South Wales Government's 'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'. The study shall also be submitted for approval to Fire and Rescue NSW. The study should specifically consider and implement, if necessary, further measures to ensure acceptable fire protection levels at the foam pump house at Banksmeadow Terminal in case of a major fire at the booster pump station;
   (b) a **Hazard and Operability Study** for the proposed project, chaired by a qualified person, independent of the project, approved by the Director General prior to the commencement of the study. The study shall be consistent with the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'. The study report must be accompanied by a program for the implementation of all recommendations made in the report. If the Proponent intends to defer the implementation of a recommendation, reasons must be documented;
   (c) a **Final Hazard Analysis** of the proposed project, consistent with the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 6 'Guidelines for Hazard Analysis'; and
   (d) a **Construction Safety Study**, consistent with the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 7 'Construction Safety Study Guidelines'. For projects in which the construction period exceeds six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of commissioning.

   Construction, other than of preliminary works, shall not commence until approval of (b) to (d) has been given by the Director General and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW.

Pre-Commissioning Studies

2. No later than two months prior to the commencement of commissioning of the proposed project, or within such further period as the Director General may agree, the Proponent shall submit the following for the approval of the Director-General:
   (a) an updated **Emergency Plan/s** and detailed emergency procedures for Caltex Refinery, Banksmeadow Terminal and Kurnell B Line (KBL) to incorporating any changes due to the project. These plans shall be consistent with the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning'; and
   (b) an updated **Safety Management System/s** for the Caltex Refinery, Banksmeadow Terminal and KBL including any changes due to the project. These documents shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept on-site and shall be available for inspection by the Director General upon request. The Safety Management System shall be developed in accordance with the Department of Planning and Infrastructure's Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'.

   Commissioning of the project shall not commence until approval of each of these plans has been given by the Director General and following approval, the Proponent shall implement each of the approved plans set out in subsections a) to b) above.

Pre-Startup Compliance

3. One month prior to the commencement of operation of the project, the Proponent shall submit to the Director General, a report detailing compliance with conditions 1 and 2 of this schedule, including:
   (a) dates of study/plan/system submission, approval, commencement of construction and commissioning;
   (b) actions taken or proposed, to implement recommendations made in the studies/plans/systems; and
   (c) responses to each requirement imposed by the Director General under conditions 1 and 2 of this schedule.

Post-Startup Compliance

4. Three months after the commencement of operation of the project, the Proponent shall submit to the Director General, a report verifying that:
   (a) the updated Emergency Plan/s required under condition 2 a) of this schedule are effectively in place and that at least one emergency exercise related to the project has been conducted at the Caltex Refinery and Banksmeadow Terminal; and
   (b) the updated Safety Management System/s required under condition 2 b) of this schedule for the Caltex Refinery and Banksmeadow Terminal have been fully implemented and that records required by the system are being kept.

Hazard Audit

5. Twelve months after the commencement of operations of the proposed project and every three years thereafter, or at such intervals as the Director General may agree, the Proponent shall carry out a comprehensive **Hazard Audit** of the proposed project and within one month of each audit submit a report to the Director General.

   The audits shall be carried out at the Proponent's expense by a qualified person or team, independent of the project, approved by the Director General prior to commencement of each audit. Hazard Audits shall be consistent with the Department of Planning and infrastructure's *Hazardous Industry Planning Advisory Paper No. 5 'Hazard Audit Guidelines'*.

   The audit report must be accompanied by a program for the implementation of all recommendations made in the audit report. If the Proponent intends to defer the implementation of a recommendation, reasons must be documented.

   The Hazard Audit may be incorporated with any existing requirements for Hazard Audits of Caltex Refinery, Banksmeadow Terminal or KBL.

NOISE AND VIBRATION

Construction Noise Criteria

6. The Proponent shall ensure that construction noise generated by the project does not exceed the criteria in Table 1.

Table 1: Construction noise criteria dB(A)

Receiver	***Day*** $L_{Aeq(15\ minute)}$
1	75
2	51
3	51
4	51
5	70

Notes:

- *To identify the receiver locations referred to in Table 1, see the figures in Appendix C.*
- *Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.*

Operating Hours

7. The Proponent shall only carry out the project during the operating hours specified in Table 2, unless otherwise agreed to in writing by the Director-General.

Table 2: Operating Hours

Activity	***Day***	***Hours***
Construction	Monday – Friday	7 am – 6 pm
	Saturday	8 am – 1 pm
	Sunday & Public Holidays	Nil
Operations	Monday – Sunday	24 hours, 7 days a week

Operating Conditions

8. The Proponent shall:
   (a) implement best practice noise and vibration management during construction, including all reasonable and feasible noise and vibration mitigation measures to minimise construction noise and vibration generated by the project; and
   (b) regularly assess the noise monitoring data and relocate, modify and/or stop operation on-site to ensure compliance with the relevant conditions of this approval,

   to the satisfaction of the Director-General.

Noise and Vibration Management Plan

9. The Proponent shall prepare and implement a Noise and Vibration Management Plan for the project to the satisfaction of the Director-General. This Plan must:
   (a) be prepared in consultation with OEH by a suitably qualified and experienced expert;
   (b) be submitted to the Director-General for approval prior to the commencement of construction;
   (c) identify the nature, location and duration of works (including scheduled construction times);
   (d) identify construction activities that are expected to generate offensive noise and vibration;
   (e) identify the location of potentially affected sensitive receivers;
   (f) set out all reasonable and feasible noise and vibration mitigation to minimise construction noise and vibration generated by the project;
   (g) include a noise monitoring program that can be used to demonstrate compliance with the construction noise criteria in condition 6 of this schedule; and
   (h) detail what management and/or contingency actions will be taken if noise emissions are found to be approaching or exceeding the construction noise criteria in condition 6 of this schedule.

Community Consultation Plan

10. The Proponent shall prepare and implement a Community Consultation Plan for the project to the satisfaction of the Director-General. This Plan must:
    (a) be submitted to the Director-General for approval prior to the commencement of construction;
    (b) include procedures for notifying and consulting nearby residents prior to the commencement of construction activities (or particularly noisy works) including local community groups;
    (c) provide details of a telephone complaints line (all hours) and relevant site personnel responsible for following up complaints;
    (d) include procedures for handling and monitoring all complaints received; and
    (e) detail what management and/or contingency actions will be taken if complaints are received.

Vibration Intensive Plant

11. The Proponent shall develop and implement safe site-specific working distances for all vibration intensive plant to be used for the project to avoid human discomfort and structural damage.

SOIL AND WATER

Discharge Limits

12. Except as may be expressly provided in the EPL for the site, the Proponent shall comply with Section 120 of the POEO Act.

Stormwater

13. The Proponent shall ensure that all clean stormwater is diverted away from any contaminated areas of the site and beneficially re-used or directed into existing stormwater drains. The clean areas must be maintained to a satisfactory level to ensure pollution of waters does not occur.

14. The Proponent shall ensure that all contaminated water from the site is captured and stored at the site and beneficially re-used where safe and practicable to do so or removed off-site, appropriately treated and disposed of by a licensed waste disposal contractor.

Water Conservation

15. The Proponent shall ensure that where possible, opportunities to replace potable water with captured stormwater, or treated process water from the site is maximised where it is safe and practicable to do so.

Spillage Control

16. The Proponent shall store all chemicals, fuels and oils used on-site in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, unless double-skinned tanks are used. Any bunds shall be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or OEH's *Environmental Protection Manual: Technical Bulletin Bunding and Spill Management.*

17. The Proponent shall ensure that any contamination of stored/piped products into the ground as a result of the project is reported to OEH and SPC upon detection.

Erosion and Sediment Control

18. During the construction of the project, the Proponent shall implement suitable erosion and sediment control measures on-site, in accordance with the relevant requirements in the latest version of the *Managing Urban Stormwater: Soils and Construction Guideline.*

Soil and Water Management Plan

19. The Proponent shall prepare and implement a Soil and Water Management Plan for the project to the satisfaction of the Director-General. This Plan must:
    (a) be prepared in consultation with OEH and NOW by a suitably qualified and experienced expert;
    (b) be submitted to the Director-General for approval prior to the commencement of site preparation;
    (c) outline the preliminary investigations that have be undertaken to test for the presence of contamination;
    (d) detail the protocols to be put in place and followed in the event that contaminated soil or water is encountered during construction;
    (e) detail how excavated soil will be tested, handled and stockpiled;

(f) detail the measures that would be put in place to ensure residents are not subject to offensive odour;
(g) detail the measures that would be put in place to manage and contain potential spills during cleaning and commissioning of the pipeline;
(h) detail the measures that will be employed to prevent erosion and sedimentation of contaminated soil; and, if necessary,
(i) outline how contaminated soil and water will be disposed of off-site (e.g. at a licensed facility).

20. Prior to the commencement of site preparation or construction works, the Proponent shall:
(a) undertake Acid Sulfate Soil (ASS) testing for areas of the site to be disturbed during site preparation and construction in accordance the NSW State Government's Acid Sulfate Soils Manual (ASSMAC 1998);
(b) provide all results of this testing to OEH; and
(c) should testing indicate that any potential or actual ASS may be disturbed during the life of the project, the Proponent shall prepare and implement an ASS Management Plan in accordance with condition 21 of this schedule (see below).

21. Prior to the commencement of any site preparation or construction works on the site, but only if potential or actual ASS are identified on the site (refer to condition 20 of this schedule, above), the Proponent shall prepare and implement an ASS Management Plan for the project to the satisfaction of the Director-General. This Plan must:
(a) be prepared in consultation with OEH and NOW by a suitably qualified and experienced expert;
(b) be submitted to the Director-General for approval prior to the commencement of any site preparation or construction works;
(c) outline the preliminary investigations that have be undertaken to test for the presence of ASS;
(d) detail the protocols to be put in place and followed in the event that ASS is encountered;
(e) detail how the ASS will be tested, handled and stockpiled;
(f) detail measures to prevent erosion and sedimentation of ASS; and, if necessary
(g) outline how the ASS will be disposed of off-site (e.g. at a licensed facility).

AIR QUALITY AND GREENHOUSE GAS

Odour

Discharge Limits

22. The Proponent shall not cause the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.

Operating Conditions

23. The Proponent shall:
(a) implement best practice air quality management during construction including all reasonable and feasible measures to minimise odour, fume and dust emissions generated by the project; and
(b) minimise any visible air pollution generated by the project,

to the satisfaction of the Director-General.

24. During construction, the Proponent shall ensure that:
(a) all trucks entering or leaving the site with loads have their loads covered; and
(b) all trucks do not track dirt onto the public road network.

Air Quality Management Plan

25. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Director-General. This Plan must:
(a) be prepared in consultation with OEH by a suitably qualified and experienced expert;

(b) be submitted to the Director-General for approval prior to the commencement of construction;
(c) outline all reasonable and feasible measures that will be implemented to minimise site odour, fume and dust emissions to ensure that dust emissions are no greater than predicted in the EA.

Greenhouse Gas

26. The Proponent shall implement all reasonable and feasible measures to minimise:
    (a) energy use on-site; and
    (b) the greenhouse gas emissions produced on-site,

    to the satisfaction of the Director-General.

FLORA AND FAUNA

Flora and Fauna Management Plan

27. The Proponent shall prepare and implement a Flora and Fauna Management Plan for the project to the satisfaction of the Director-General. This Plan must:
    (a) be prepared in consultation with OEH by a suitably qualified and experienced expert;
    (b) be submitted to the Director-General for approval prior to the commencement of construction;
    (c) outline all reasonable and feasible measures to mitigate and mange impacts on flora and fauna including sediment, erosion and pollutant run-off management measures; and
    (d) include a Weed Management Plan outlining all reasonable and feasible measures to identify noxious/exotic weeds on-site, prevent their spread and ensure their appropriate management/disposal during construction.

Vegetation Clearing

28. During the construction of the project, the Proponent shall
    (a) minimise vegetation clearing as far as practicable; and, if necessary,
    (b) replant with a similar species any trees that are removed during the construction of the project.

WASTE

Waste Management Plan

29. The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This Plan must:
    (a) be prepared in consultation with OEH by a suitably qualified and experienced expert;
    (b) be submitted to the Director-General for approval prior to the commencement of construction; and
    (c) outline all reasonable and feasible measures that will be implemented to mange and appropriately dispose of construction waste.

TRAFFIC

30. The Proponent shall ensure that the project is undertaken in accordance with the Deed of Agreement between Caltex Refineries (NSW) Pty Ltd and the RTA dated 29th January 2003 to lay, construct and operate a steel pipeline, for the carriage of liquid jet fuel in, under and across parts of the Sydney road network.

HERITAGE

Heritage Management Plan

31. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This Plan must:
    (a) be prepared in consultation with OEH by a suitably qualified and experienced expert;

(b) be submitted to the Director-General for approval prior to commencement of construction;
(c) include programs/procedures for:
    i. managing the discovery of previously unidentified heritage relics including halting of works in the vicinity, assessment of the significance of the item(s), notification of OEH and the Department, and determination of appropriate management and mitigation measures including when works can re-commence;
    ii. managing the discovery of human remains including halting of works in the vicinity, notification of the NSW Police, the Department, the OEH and the Aboriginal stakeholders and not-recommencing any works in the area unless authorised by the Department and/ or the NSW Police (whichever is relevant); and
    iii. heritage inductions for construction personnel (including procedures for keeping records of inductions).

VISUAL AMENITY

Visual Mitigation

32. During the life of the project, the Proponent shall mitigate the visual impacts of the project in such a manner that it does not create nuisance to surrounding properties or the public road network, or operations associated with Sydney Airport.

End of Schedule 3

SCHEDULE 4
ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Construction Environmental Management Plan

1. The Proponent shall prepare and implement a Construction Environmental Management Plan for the project to the satisfaction of the Director-General. The Plan must:
   (a) be submitted to the Director-General for approval no later than two weeks prior to the commencement of construction or demolition or within such period otherwise agreed by the Director-General;
   (b) identify the statutory approvals that apply to the project;
   (c) consolidate all relevant management plans and monitoring programs required in the conditions of this approval;
   (d) outline all environmental management practices and procedures to be followed during construction and demolition works associated with the project;
   (e) describe all activities to be undertaken on the site during construction of the project, including a clear indication of construction stages;
   (f) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts;
   (g) describe of the roles and responsibilities for all relevant employees involved in construction and demolition works associated with the project; and
   (h) include arrangements for community consultation and complaints handling procedures during construction and demolition.

   Construction of the project shall not commence until written approval of this plan has been received from the Director-General.

ENVIRONMENTAL REPORTING

Incident Reporting

2. As soon as practicable after detecting an exceedance of the criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department, relevant agencies and relevant local councils of the exceedance/incident.

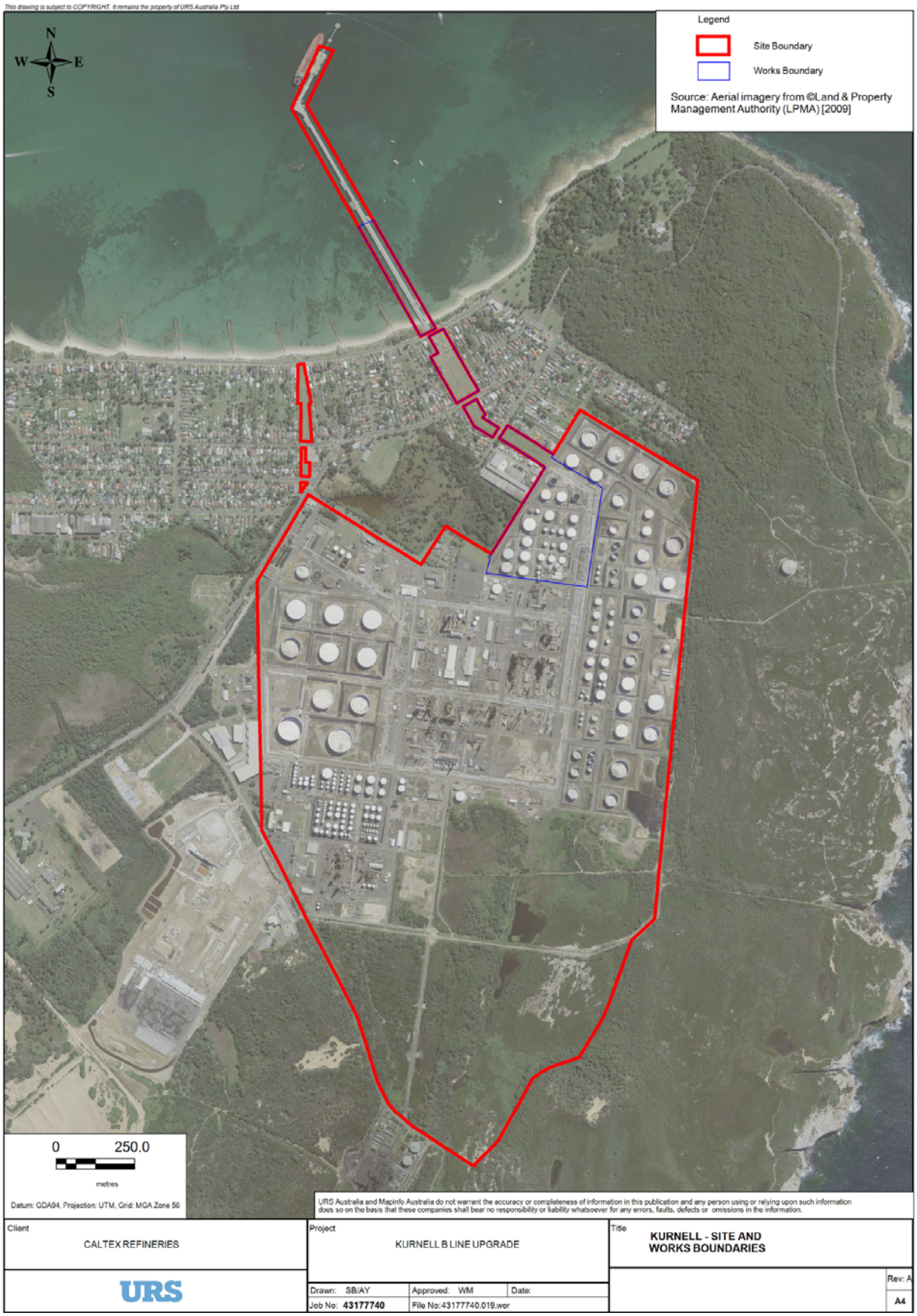
3. Within six (6) days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that:
   (a) describes the date, time, and nature of the exceedance/incident;
   (b) identifies the cause (or likely cause) of the exceedance/incident;
   (c) describes what action has been taken to date; and
   (d) describes the proposed measures to address the exceedance/incident.

Access to Information

4. From the commencement of construction, the Proponent shall make the following information publicly available on its website as it is progressively required by the approval:
   (a) a copy of all current statutory approvals;
   (b) a copy of the current plans and programs required under this approval;
   (c) a summary of the monitoring results of the project, which have been reported in accordance with the relevant conditions of this approval;
   (d) a complaints register, which is to be updated on a monthly basis; and
   (e) any other matter required by the Director-General.

End of Schedule 4

APPENDIX A
SITE PLANS

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Site Boundary
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Client
CALTEX REFINERIES
Project
KURNELL B LINE UPGRADE
Title
BANKSMEADOW - SITE AND WORKS BOUNDARIES
URS
Drawn: SB/AY
Approved: WM
Date:
Job No: 43177740
File No:43177740.018.wor
Rev: A
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APPENDIX B
STATEMENT OF COMMITMENTS

Mitigation Measure and Commitment	Implementation of mitigation measures		
	Design	Construction	Operation
General			
Caltex would carry out the construction and operation of the Project in accordance with the EA and the approval conditions.	✓	✓	✓
Caltex would implement all practicable measures to avoid, or minimise, any impacts to the environment that may arise from the construction and operation of the Project.	✓	✓	✓
Caltex would ensure that the Contractor prepares and implements a Construction Environmental Management Plan (CEMP) that would be reviewed and approved by an EMR.		✓	
Caltex would appoint an EMR to monitor the implementation of all environmental management measures. The Environmental Management Representative (EMR) would ensure that all mitigation measures are being effectively applied during construction and that the work is being carried out in accordance with the CEMP and all environmental approval and legislative conditions.		✓	
Caltex personnel would undergo training in accordance with the CEMP and any other training commitments agreed as part of Project Approval.		✓	
Contact details for Sydney Ports Corporation would be included within the CEMP.	✓	✓	
All works would be carried out in a manner that would comply with the existing Environmental Protection Licences (EPL) held by the Proponent for each site. Caltex would amend the EPLs in consultation with OEH, in line with the recommendations of Appendix B of the OEH Submission.		✓	✓
Soil			
A Site specific contamination management plan would be prepared.	✓	✓	
Any contaminated soils would be tested and disposed of within one month of excavation.		✓	
Soils would be tested for contamination as they are stockpiled. Any contaminated soils would be stored within Kurnell Refinery at least 800m from any properties within Kurnell.		✓	
Contaminated soil would be disposed of off-site to appropriately licensed landfill facility once it has been classified in accordance with the DECC, NSW (2009) Waste Classification Guidelines: Part 1: Classifying Waste		✓	
Any soil excavated and stockpiled on-site would be appropriately validated prior to reuse as backfill.		✓	
Stockpiled soils would be appropriately managed (in accordance with 'Blue Book' requirements to reduce the risk of soil erosion and/or dust creation and propagation. Silt fences would be installed around the stockpiles where necessary and stockpiles would be covered and wetted down as required.		✓	
A Preliminary assessment would be carried out to assess the presence of potential acid sulphate soils (PASS)	✓	✓	

An Acid Sulphate Soils Management Plan would be prepared in accordance with the Acid Sulphate Soil Manual (ASS Management Advisory Committee 1998) if ASS are encountered	✓	✓	
The pipeline would be maintained and repaired as required to ensure public safety, EPA licence compliance and to maintain high levels of system reliability.			✓
Ground and Surface Water			
The proposed relocation of pigging launching system from the Wharf to within the boundaries of the Kurnell Refinery avoids the risk of any pollution events affecting Botany bay.	✓		✓
Groundwater removed by dewatering, and any runoff that may accumulate in excavations, would be periodically tested for elevated levels over contamination. Any water removed by dewatering that was considered contaminated would be disposed of into the oily water system and treated in the Waste Water Treatment Plant (WWTP).		✓	
Clean water removed through the dewatering process would be collected and re-used onsite where possible to minimise discharges to the stormwater drainage system.		✓	
A Groundwater Management Plan (GWMP) would be developed to manage contaminated groundwater and prevent the infiltration of contaminated runoff. This plan would be included as part of the CEMP.	✓	✓	
Erosion control measures would be implemented at each work site as per **Chapter 6 Soil, Geology and Topography** for the EA		✓	
Any required dewatering activities would be carried out in strict compliance with NSW Office of Water licensing conditions.		✓	
In the event of prolonged wet conditions creating vulnerability for water quality impacts, Caltex would direct the contractor to cease work at any location where it is considered that there is a significant risk to water quality until conditions improve.	✓		
Platforms will be attached to the wharf as the new pipeline is installed to intercept any rust or metals falling from the works.		✓	
Spill teams will be placed along the route of the new pipeline as it is hydro-tested to check for leaks and ensure a swift response in the unlikely event of a leak.		✓	

Ecology			
Flora Management			
A Weed Management Plan will be developed as part of the CEMP if noxious/ exotic weeds are identified on site during construction. This plan would include: • wash down procedures to reduce the spread of weeds via vehicles and machinery; • target areas of potential new outbreaks including soil stockpiles and any other disturbed areas; • recommend measures including cleaning of vehicle tyres before leaving a property, cleaning of footwear and minimising soil movement between locations; • monitoring programs for noxious and problematic weeds on sites and in the surrounding areas; and • measures to mitigate noxious and problematic weeds, should they be found, would be in accordance with the DII specifications for the Sutherland Shire and Botany Bay Council area.		✓	
Standard industry measures for sediment runoff on urban developments would be implemented according to the '*The Blue Book* Volumes 1 and 2 (Landcom 2004), and *Managing* Urban Stormwater: Soils and Construction Volume 1, and (DECC, 2008). Specifically, sediment and pollutant run-off controls would be managed to protect sensitive ecological receptors in adjacent areas to the footprint. Management methods would include: • stockpiling to be appropriately sediment fenced to avoid scouring and runoff into adjoining creeklines and vegetated areas; • if excavated soils are found to be contaminated they would be removed from site as soon as possible and taken to an appropriate waste facility. In circumstances where soils need to be temporarily stored on site, contaminated materials would be stockpiled on non-permeable sheeting and covered with plastic sheeting to prevent infiltration of rain water and possible run-off; and • wash down protocols of construction vehicles and machinery to prevent the spread of root-rot fungus (*Phytophthora cinnamomi*).		✓	
Fauna Management			
Frog-friendly and wetland friendly herbicides such as Roundup Biactive or Weedmaster DUO will be used for the control of noxious weeds.		✓	✓
Wash down protocols In accordance with DECCW guidelines (DECC, 2008b) to prevent the spread of amphibian chytrid disease *chytridiomycosis* would be included. Wash down would occur whenever vehicles enter or leave an excavation area.		✓	
Indigenous Heritage			
Should any previously unidentified Aboriginal objects or sites be uncovered during the course of construction, work in that area would cease and DECCW would be informed to seek advice on how to best proceed. If burials are uncovered, the NSW police would be informed immediately. Should the remains be then identified as archaeological in context, DECCW would be informed to clarify how to best proceed.		✓	

Non-Indigenous Heritage			
Burying and returfing the new pipeline with existing soil, where possible, through the Kurnell Refinery right of way.		✓	
Traffic and Transport			
Vehicle movements would be limited to the designated routes to minimise impacts to road users caused by the Project.	✓		
All construction traffic will drive in a safe and responsible manner at all times to reduce the risk of accidents occurring.		✓	
Local Government councils and local residents will be contacted for concurrence to any work which will affect the road network.		✓	
A Traffic Management Plan will be developed for the construction phase. The Traffic Management Plan will comply with all relevant Regulations and By-Laws and in particular address safe access and egress to the public road network.	✓	✓	
Noise			
A Construction Noise and Vibration Management Plan (CNVMP) would be developed and included in the CEMP for the Project. This plan would be incorporated into the CEMP. Together these plans would: • provide details of the project; • outlines the nature, duration and location of the works; • estimate construction times; • identify construction activities that are expected to generate offensive noise; • identify the location of potentially sensitive receptors; • provide an assessment of the construction noise levels and potential impacts on sensitive receivers; • detail reasonable and feasible work practices and control measures to minimise potential noise impacts; and • detail performance evaluation procedures to assess the effectiveness of implemented site controls and mitigation measures. The CNVMP would be developed in line with the ICNG.	✓	✓	
Low-noise plant and equipment would be selected in order to minimise potential for noise and vibration, all equipment would be regularly checked to ensure that the mufflers and other noise reduction equipment is working correctly.		✓	
Alternatives to reversing alarms and horns, such as manually adjustable or ambient noise sensitive types (“smart” reversing alarms) and closed circuit TV systems would be considered.		✓	
Equipment would be located to take advantage of the noise screening provided by existing site features and structures, such as embankments, storage sheds and/or boundary fences.		✓	
Acoustic engineers would work closely with the construction contractors and carry out preliminary testing of construction equipment prior to commencement of construction works.		✓	
Concrete trucks, rock breakers, pneumatic jack hammers, and bulldozers will not be used in the pipeline Right of Way or Wharf.		✓	
Caltex would operate no more than three items of plant in close proximity to a sensitive receiver at any one time during the Kurnell construction work		✓	
Acoustic enclosures would be constructed and implemented for the bevelling machine and hand held grinders when in use during the Kurnell construction work.		✓	

If required following testing, mobile screens would be used to reduce noise levels at nearby sensitive receivers when the beveling machine and hand held grinders are being used.		✓	
Community consultation with local residents would be undertaken to assist in the alleviation of community concerns. A complaints register would be maintained.		✓	
Any noise complaint(s) would be investigated immediately and noise monitoring would be undertaken to ascertain the extent of any exceedance at the locations concerned. Reasonable and feasible measures would then be implemented to reduce noise impacts.		✓	
Construction works would be carried out during the hours of 7.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm on Saturdays, as is outlined in the ICNG, except for: • the delivery of materials which is required outside these hours as requested by the RTA or other authorities for safety reasons; • emergency work to avoid the loss of lives, property and/or prevent environmental harm; • any works which do not cause emissions to be audible at any nearby residential property; • any other work as agreed through negotiations between Caltex and potentially affected noise receivers. Work outside standard hours would require the formal written consent of Caltex. Caltex would notify potentially affected neighbours at least five days in advance of such works. General notification of the planned works (including peak and noisy construction activities undertaken during standard working hours) would be provided to potentially affected parties.		✓	
Construction work outside standard hours requires a further noise reduction to meet the noise management level of 35 dB(A). Further reduction in noise levels can be achieved by programming quieter works during these hours: • by reducing number of truck movements and equipment used at the same time on site; and • not operating noisy equipment such as a bulldozer.		✓	
Construction stages would be scheduled to minimise the multiple use of the noisiest equipment or plant items near noise sensitive receptors.	✓	✓	
Plant items would be strategically positioned to reduce the noise emission to noise sensitive receptors, wherever possible.	✓	✓	
Awareness training of staff and contractors in environmental noise issues would be undertaken.		✓	
Any equipment not in use for extended periods during construction work would be switched off.		✓	✓
Heavy vehicle entry and exit from site would be restricted to the nominated construction hours, except where the RTA or other authorities require movements to be outside these hours.		✓	
Should any unexpected construction activities occur which could potentially generate significant noise not described in this report, monitoring would be undertaken to ensure equipment noise emission levels do not deteriorate.		✓	
Where noise level exceedances cannot be avoided, consideration would be given to applying time restrictions and/or providing quiet periods for nearby residents.		✓	

Caltex would produce a Community Consultation Plan (CCP) as part of the CEMP. Together these documents would: • provide procedures for consulting and notifying nearby residents of the commencement of the construction activities. This would include providing written notification to residents around the Kurnell ROW area.; • Provide regular updates to Kurnell Progress and Precinct Committee; • outline procedures for consulting and notifying nearby residents at appropriate stages throughout the construction activities of any specific works that may result in potential noise impacts; • provide details of a telephone complaints line (including a daytime and after hours contact phone number) for the purposes of receiving any complaints or enquiries for members of the public in relation to the construction activates; • provide contact details of relevant site persons responsible for following up complaints; • outline procedures for handling and monitoring all complaints received by the proponent; and • provide details of contingency measures to be implemented when complaints are received. The CCP would be developed in line with the ICNG.	✓	✓	
Air Quality			
Vehicles on the right of way would be subject to a speed limit of 10km/h		✓	
Vehicle movements on unsealed roads would be minimised where practical.		✓	
Haul vehicle tailgates would be properly sealed, such that they do not deposit loose dirt onto the road surface.		✓	
Vehicles would be loaded to less than the height of the side and tailboards, and loads of fill will be covered during transport.		✓	
Any soil adhering to the undercarriage and wheels of trucks would be removed prior to departure from the site.		✓	
All vehicles would travel on designated roadways where feasible.		✓	
Vehicles would not be left with engines idling for extended periods.		✓	
Vehicles would be properly maintained to operate in an efficient manner.		✓	
Material transfer requirements would be optimised through excavation planning, such that material double handling will be avoided where possible and work areas will be minimised.	✓	✓	
Soils would be tested for contamination and odour as they are stockpiled. Any contaminated soils would be stored within the Caltex Lubricating Oil Refinery (CLOR). The soils would be placed into uniquely identified stockpiles on plastic sheeting and appropriately covered and bunded.		✓	
Stockpiles within along the proposed pipeline route would be continually monitored for odour.		✓	
Excavation rates would be controlled in order to manage potential VOC and odour emissions.		✓	
Where visible dust emissions are present during unloading/loading events near to sensitive receptors, water sprays and/or mists would be used.		✓	

Operations would be minimised or ceased during undesired weather conditions or forecasts (e.g. periods of high winds) near sensitive receptors or when offensive odours are noticed by receptors.		✓	
In unfavourable weather conditions (e.g. dry and windy conditions), water sprays would be used to dampen down soils prior to excavation and handling in locations likely to impact on sensitive receptors. Exposed surfaces and stockpiles would also be watered, sprayed or covered where required, to minimise nuisance dust to sensitive receptors.		✓	
Soil stockpiles would be covered as required.		✓	
Works will be undertaken during favourable meteorological conditions.		✓	
Exposed soil on completed areas would be re-vegetated.		✓	
Workers would maintain a visual awareness of dust emissions.		✓	
Excavations would be inspected for hydrocarbon odours.		✓	
In the Right of way, portable aerosol monitoring (e.g. DustTrak) would be used to monitor particulate matter levels where dust emissions are present near to residential receptors.		✓	
VOC monitoring would be used near to excavations.		✓	
Hazard and Risk			
All pipes outside of contained areas will be full welded not flanged.		✓	
Emergency Response Plans for Kurnell Refinery, Banksmeadow Terminal and the KBL will be updated prior to the Project being commissioned.	✓	✓	
The final Fire Safety Study will be reviewed prior to the Project being commissioned to ensure that any further risk reduction measures are appropriately implemented.	✓	✓	
Greenhouse Gas			
Equipment will be inspected and maintained to ensure efficient running and so it is appropriately sized for the task in hand.	✓	✓	
Local supplies and/or facilities will be utilised to minimise vehicle kilometres travelled (where reasonable and feasible)	✓	✓	
Energy efficiency opportunities will be identified and implemented (where reasonable and feasible) during construction and operation of the Project.	✓	✓	✓

APPENDIX C
NOISE RECEIVER LOCATIONS


Botany
Road
Beauchamp
Road
R5
N
BANKSMEADOW
TERMINAL
Key
Proposed Construction Area
Receiver Location
Image © 2011 Sinclair Knight Merz & Fugro
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