



Caltex Kurnell Refinery Conversion

*State Significant
Development
Modification Assessment
(SSD 5544 MOD 6)*



December 2019

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Cover photo

Kurnell Wharf, Sydney (Department of Planning, Industry and Environment 2018)

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Glossary

Abbreviation	Definition
ACS	Asbestos contaminated soil
AHD	Australian Height Datum
Applicant	Caltex Refineries (NSW) Proprietary Limited
CCMP	Containment Cell Management Plan
Commission	Independent Planning Commission
Council	Sutherland Shire Council
DEMP	Demolition Environmental Management Plan
Department	Department of Planning, Industry and Environment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPL	Environment Protection Licence
HDPE	High Density Polyethylene
km	Kilometres
LGA	Local government area
m	Metres
Minister	Minister for Planning and Public Spaces
NSW	New South Wales
Region Plan	A Metropolis of Three Cities – The Greater Sydney Region Plan
SEE	Statement of Environmental Effects
SSD	State Significant Development



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1. Introduction

This report provides an assessment of an application to modify the State significant development consent (SSD) for the conversion of the Caltex Kurnell Refinery (SSD 5544).

The modification application was lodged on 18 November 2019 by Caltex Refineries (NSW) Proprietary Limited (the Applicant) pursuant to section 4.55(1A) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The modification application seeks approval to extend the duration of the asbestos contaminated soil (ACS) management works period by an additional four months, from 30 November 2019 to 31 March 2020.

1.1 Background

The Applicant operates a finished fuel product import and distribution terminal (the terminal) at 2 Solander Street, Kurnell in the Sutherland local government area (LGA) (see **Figure 1**).



Figure 1 | Site Location

Between 1956 and 2014, the site was used as both an oil refinery and a storage and distribution terminal. Following a review of its operations in July 2012, the Applicant announced it would cease its refining operations. However, the site would continue to import finished and processed fuels, including gasoline, diesel and jet fuel, for storage and distribution to its market customers.

To facilitate the conversion, the Applicant sought development consent (SSD 5544) to convert the Kurnell Refinery to a finished product import and distribution terminal, referred to as the Kurnell Refinery Conversion (the development). The Kurnell Refinery Conversion was approved on 7 January 2014 and commenced in late 2014. The development involved the conversion of existing infrastructure to allow for the site to operate as a terminal, and the shutdown of the existing refinery (completed in 2016). The conversion was considered necessary to ensure operations within Australia remain viable, while also guaranteeing a safe and reliable supply of petroleum fuels to New South Wales (NSW) and the Australian Capital Territory.

The Applicant modified its development consent to undertake the demolition of redundant refinery infrastructure (SSD 5544 MOD 1), which commenced in late 2015 and was originally expected to be completed by mid-2018. The modification permitted the demolition and removal of redundant tanks, pipes and infrastructure within the terminal and on Silver Beach, Kurnell Wharf and various road reserves surrounding the site, including Captain Cook Drive, Prince Charles Parade, and Cook Street.

The development consent was modified again in late 2017 to allow for the on-site management of ACS via on-site containment. ACS was mainly contained in sections of the redundant pipe network, at depths of around 0.2-0.5 metres (m) below ground level (see **Figure 2**). The modification permitted the construction of an on-site aboveground containment cell with a maximum airspace capacity of up to 24,500 tonnes (t) of ACS, as well as associated leachate management and groundwater monitoring systems.

As of December 2019, the Applicant has completed the majority of the on-site demolition works, including the removal of existing refinery process units, redundant storage tanks and other associated refinery infrastructure. Excavation of ACS in the vicinity of the redundant pipe network was completed in mid-2019, while the closure of the ACS containment cell is currently being finalised.

1.2 Subject Site

The terminal is located on the Kurnell Peninsula, within the Sutherland LGA, and is located approximately 15 kilometres (km) south of the Sydney CBD and 4 km south-east of Sydney Airport. The site has an area of approximately 187 hectares and is relatively level and low lying, at an elevation between 5-10 m Australian Height Datum (AHD).

Road access to the site is via Solander Street, off Captain Cook Drive. The site is surrounded by residential and industrial land uses and natural features (see **Figure 1**), including:

- the community of Kurnell village immediately to the north and north-west
- Quibray Bay Aquatic Reserve and Towra Point Nature Reserve (a RAMSAR wetland) to the west
- light industrial uses and the Sydney Desalination Plant to the west and south-west
- Kamay Botany Bay National Park to the east.

The closest sensitive receiver to the site is located approximately 30 m to the north of the site on Cook Street. The site is also subject to an existing Environment Protection Licence (EPL) No. 837 issued by the Environment Protection Authority (EPA).

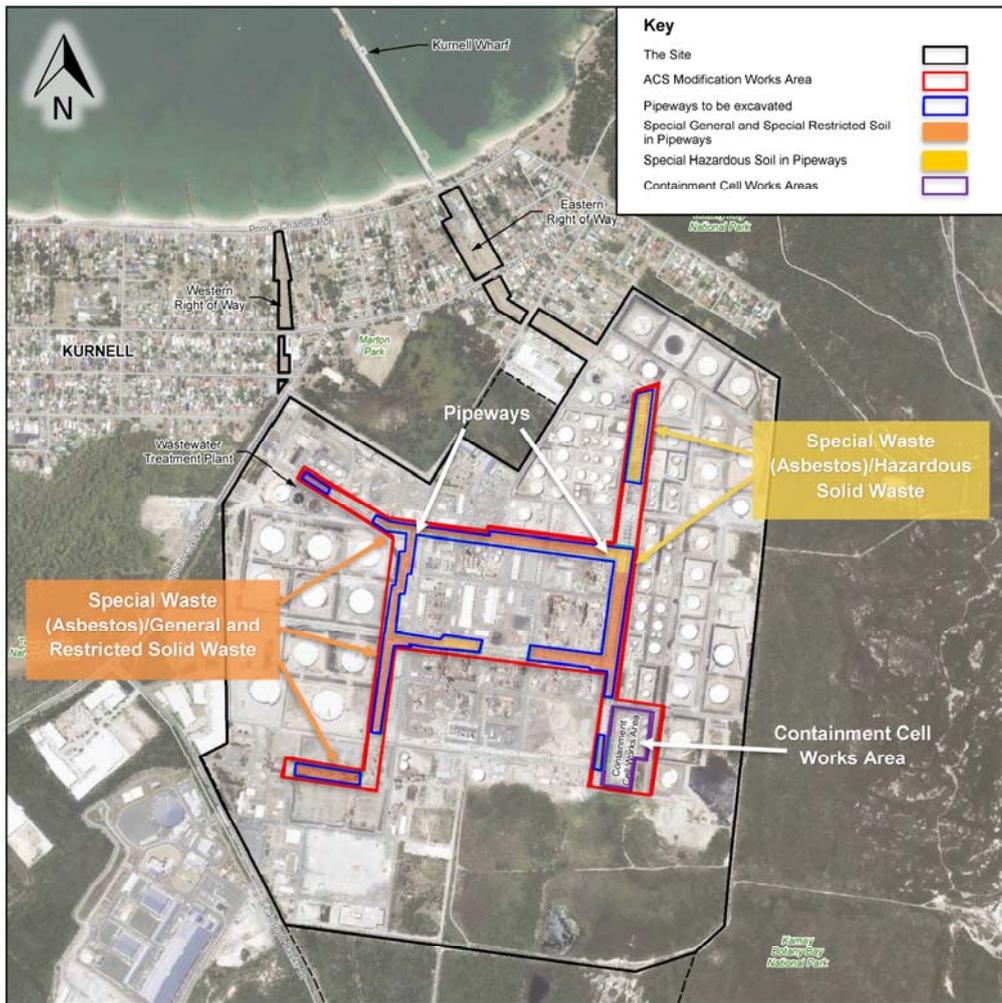


Figure 2 | Location of ACS containment works approved under SSD 5544 MOD 2

1.3 Approval History

On 7 January 2014, development consent was granted by the former Planning Assessment Commission (the PAC) for the Kurnell Refinery Conversion (SSD 5544). The development consent permits the conversion of the Kurnell Refinery to a finished product import and distribution terminal, including modification of existing fuel storage tanks and extension of product pipelines for gasoline, diesel and jet fuel.

SSD 5544 has been the subject of five previous modifications. A summary of each modification is provided in **Table 1** below.

Table 1 | Summary of previous modifications to the development consent

MOD Number	Summary of Modifications	Approval Date
MOD 1	The modification permitted demolition and removal of redundant refinery process units, tanks, pipelines, pipe ways and infrastructure at the site.	10 August 2015
MOD 2	The modification permitted on-site containment and management of ACS present at the site.	27 October 2017
MOD 3	The modification permitted demolition and removal of Tank 101 in the far north-eastern corner of the site.	17 November 2017
MOD 4	The modification permitted extension of the demolition works period until 10 June 2019.	9 August 2018
MOD 5	The modification permitted an increase in the capacity of the ACS containment cell, extension of the ACS management works period until 30 November 2019 and the retention of a section of the cooling water outlet pipeline.	10 July 2019



2. Proposed Modification

On 18 November 2019, the Applicant lodged a modification application under section 4.55(1A) of the EP&A Act to modify development consent SSD 5544. The modification is described in full in the Statement of Environmental Effects (SEE) included in **Appendix A** and is illustrated in **Figure 3** and **Figure 4** below.

Under the development consent (as modified), the Applicant is required to ensure all ACS management works are completed by 30 November 2019. The ACS management works include:

- construction of the ACS containment cell
- excavation of ACS from the redundant pipe network and subsequent filling of the ACS containment cell
- closure of the ACS containment cell once full.

The Applicant is seeking to extend the duration of the ACS management works period by an additional four months, from 30 November 2019 to 31 March 2020. The Applicant has completed the majority of the ACS management works, and is currently in the process of closing the containment cell. This involves the installation of a number of capping layers, including the placement and sealing of a High Density Polyethylene (HDPE) liner by specialist contractors (see **Figure 3**). Due to delays experienced on another project, the specialist contractors employed by the Applicant were unable to complete the installation of the HDPE liner until November 2019, which has delayed installation of the remaining capping layers.

The Applicant is subsequently seeking an extension until 31 March 2020, to allow for the installation of the remaining capping layers and to provide additional contingency, should further delays be encountered.

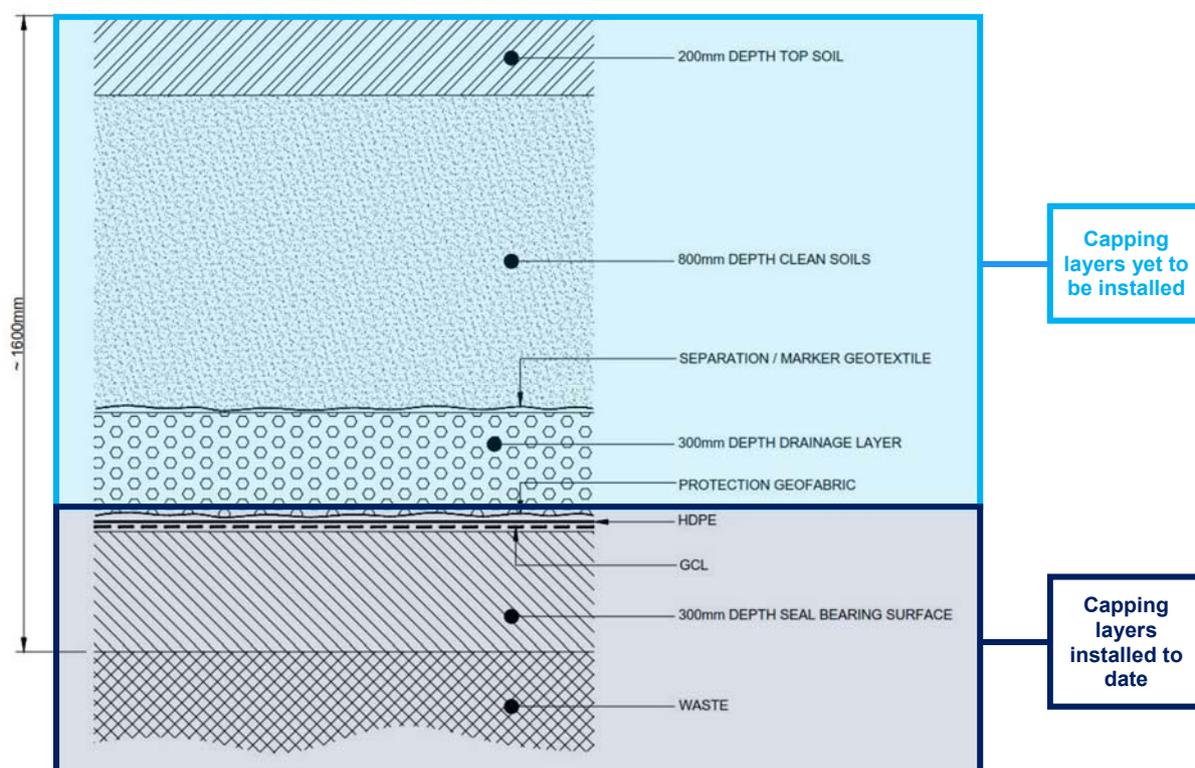


Figure 3 | ACS containment cell capping layers

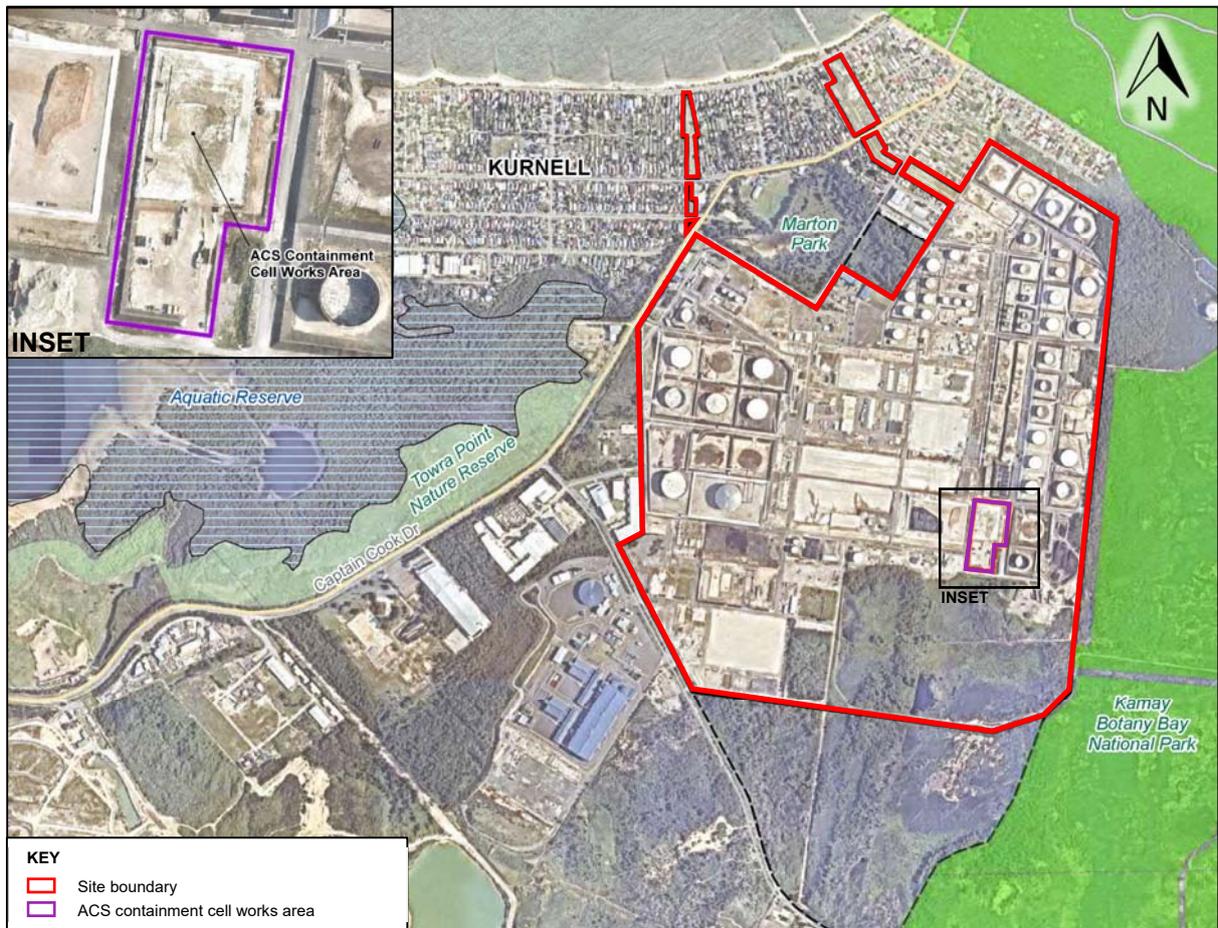


Figure 4 | Location of the ACS containment cell



3. Strategic Context

3.1 Greater Sydney Region Plan

The vision of the Greater Sydney Region Plan 2018, *A Metropolis of Three Cities* (the Region Plan) falls within the integrated planning framework for Sydney (see **Figure 5**) and seeks to meet the needs of a growing and changing population by transforming Greater Sydney into a metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City. It brings new thinking to land use and transport patterns to boost Greater Sydney’s liveability, productivity and sustainability by spreading the benefits of growth.

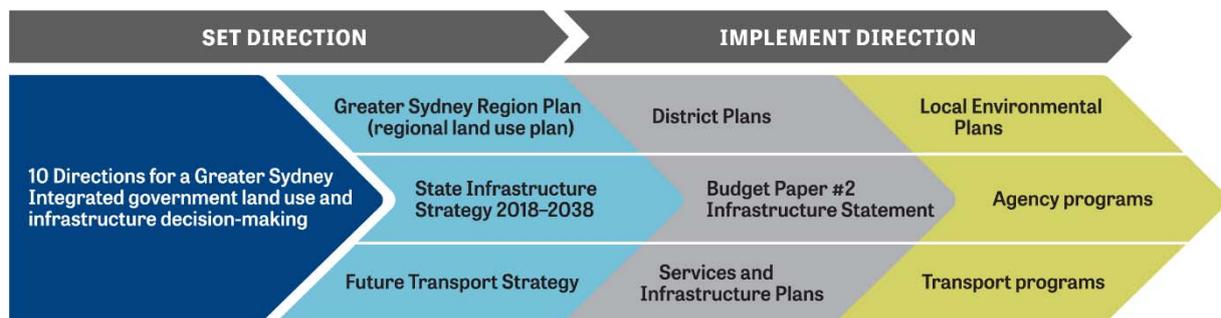


Figure 5 | Integrated Planning for Greater Sydney

The proposed modification would continue to support the directions and objectives of the Region Plan by ensuring:

- the terminal (and the ACS containment cell) are not compromised by encroachment from sensitive land uses (see Objective 23)
- management of ACS at the site is undertaken in a safe and cost-effective manner, without the need for this material to be transported from the site (see Strategy 35.1).

3.2 South District Plan

The Greater Sydney Commission has released six district plans encompassing Greater Sydney, which will guide the delivery of *A Metropolis of Three Cities*. The subject site is located within the South District, which forms part of the Eastern Harbour City.

The proposed modification is consistent with Planning Priority S10 and S11 of the *South District Plan*, as the closure of the ACS containment cell will improve the operational efficiency of the terminal and facilitate the future development of new industrial and urban services activities on unused sections of the site.



4. Statutory Context

4.1 Scope of Modifications

The Department of Planning, Industry and Environment (the Department) has reviewed the scope of the modification application and is satisfied the proposed modification would result in minimal environmental impacts, and relates to substantially the same development as the original development consent on the basis that:

- the primary function and purpose of the approved liquid fuel terminal would not change as a result of the proposed modification
- the modification is of a scale that warrants the use of section 4.55(1A) of the EP&A Act
- the approved fuel storage capacity of the liquid fuel terminal would remain unchanged as a result of the proposed modification
- any potential environmental impacts would be minimal and appropriately managed through the existing or modified conditions of consent.

Therefore, the Department is satisfied the proposed modification is within the scope of section 4.55(1A) of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers that the application should be assessed and determined under section 4.55(1A) of the EP&A Act rather than requiring a new development application to be lodged.

4.2 Consent Authority

The Independent Planning Commission (the Commission) is the consent authority for the purposes of section 4.55(1A) of the EP&A Act and in accordance with clause 8A(2) of State Environmental Planning Policy (State and Regional Development) 2011, as a reportable political donation was made by the Applicant in the past two years.



5. Engagement

5.1 Department's Engagement

Clause 117(3B) of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) specifies that the notification requirements of the EP&A Regulation do not apply to SSD. Accordingly, the application was not notified or advertised. However, it was made publicly available on the Department's website and referred to Sutherland Shire Council (Council) and the EPA for comment.

During the notification period, a total of two submissions were received, none of which objected to the proposed modification.

Council did not object to the extension of the ACS management works period, but requested the Applicant ensure all management plans associated with the closure of the ACS containment cell are prepared following the completion of the ACS management works. These plans include the Containment Cell Final Report, the Long Term Environmental Management Plan and the Pipeway Validation Report.

The **EPA** did not object to the modification and advised the extension of the ACS management works period would not require a variation to the development's existing EPL. The EPA subsequently recommended the Applicant continue to implement the Demolition Environmental Management Plan (the DEMP) and its associated sub-plans until the ACS management works are completed.



6. Assessment

The Department has assessed the merits of the proposed modification. During this assessment, the Department has considered the:

- SEE provided to support the proposed modification (see **Appendix A**)
- submissions received from Council and the EPA (see **Appendix A**)
- assessment report for the original development application and subsequent modification applications
- existing conditions of consent (as modified)
- relevant environmental planning instruments, policies and guidelines
- requirements of the EP&A Act, including the objects of the EP&A Act.

The Department considers the key assessment issue to be the extension of the ACS management works period.

6.1 Extension of the ACS management works period

The Applicant is seeking to extend the duration of the ACS management works period by an additional four months, from 30 November 2019 to 31 March 2020. The proposed extension has the potential to impact upon nearby sensitive receivers, primarily in relation to air quality and noise impacts associated with the closure of the ACS containment cell.

The Applicant has indicated the proposed modification would not involve any additional demolition or civil works beyond those which were previously assessed and approved as part of SSD 5544 MOD 2. The Applicant's assessment of the modification subsequently concluded any potential impacts experienced during the extended ACS management works period would be minimal or of the same scale as those previously assessed by the Department. These impacts would continue to be managed in accordance with the environmental protection measures contained in the existing development consent (as modified), the DEMP and the Containment Cell Management Plan (CCMP).

Both Council and the EPA did not object to the extension, subject to the Applicant satisfying all existing conditions of consent relating to the ACS management works.

The Department considers the proposed modification would not result in any additional environmental impacts beyond those which were previously assessed as part of SSD 5544 MOD 2. While the modification would extend the length of time taken to close the ACS containment cell, the Department notes any potential impacts associated with the works would continue to be effectively managed through the environmental protection measures contained in the development's DEMP and CCMP.

In addition, the Department notes the ACS containment cell is located within the eastern section of the site, and is shielded from nearby sensitive receivers by the terminal's existing tanks and infrastructure (see **Figure 4**). To date, the Applicant has not received any complaints regarding the ACS management works, and will continue to update the local community on the ACS management works as part of its quarterly community meetings.

The Department's assessment concludes the proposed modification can be appropriately managed through the existing development consent (as modified), the DEMP and the CCMP. The extension of the ACS management works period would ultimately allow for the completion and closure of the ACS containment cell, reducing any potential risk to the operating terminal, on-site workers, the local community and the surrounding environment.



7. Evaluation

The Department has assessed the proposed modification and SEE, and considered the submissions provided by Council and the EPA. The Department has also considered the objectives and the relevant considerations under section 4.55 of the EP&A Act. The Department considers the proposed modification is appropriate on the basis that:

- it will not result in any additional environmental impacts beyond the approved finished fuel product import and distribution terminal
- the extension of the ACS management works period would allow for the completion of the ACS containment cell
- the ACS containment cell has been capped with a layer of soil, and the Applicant would ensure any residual impacts upon the local community, on-site workers and the surrounding environment associated with the extension are minimised.

Following on from its assessment, the Department considers the modification application is approvable, subject to the modification conditions outlined in **Appendix B**. This assessment report is hereby presented to the Commission for determination.


Chris Ritchie 19/12/19.
Director
Industry Assessments


Anthea Sargeant 9/1/20
Executive Director
Compliance, Industry & Key Sites



Appendices

Appendix A – List of Documents

The Department has relied upon the following key documents during its assessment of the modification:

Modification Application

- Section 4.55(1A) modification (Modification 6) to SSD 5544, prepared by AECOM Australia Pty Ltd, dated 14 November 2019 and all attachments.

Submissions

- submissions received from Council and the EPA.

Strategic Documents

- Greater Sydney Region Plan, A Metropolis of Three Cities – Connecting people, prepared by the Greater Sydney Commission, dated March 2018
- Our Greater Sydney 2056, South District Plan – Connecting communities, prepared by the Greater Sydney Commission, dated March 2018.

Statutory Documents

- relevant environmental planning instruments, policies and guidelines
- relevant requirements of the EP&A Act.

Other Documents

- Environmental Impact Statement – Kurnell Refinery Conversion, prepared by URS Australia Pty Ltd, dated May 2013
- State Significant Development Assessment: Caltex Kurnell Refinery Conversion SSD 5544, prepared by the Department of Planning and Infrastructure, dated December 2013
- Statement of Environmental Effects – ACS Management Project, prepared by AECOM Australia Pty Ltd, dated October 2016
- Section 96(2) Modification Assessment: On-site Management of ACS, SSD 5544 MOD 2, prepared by the Department of Planning and Environment, dated 12 October 2017
- Letter titled 'Determination of Modification Application – Kurnell Refinery Conversion Works (SSD 5544 MOD 2)' prepared by the Planning Assessment Commission, dated 27 October 2017
- existing conditions of consent in SSD 5544 (as modified).

All documents relied upon by the Department during its assessment of the modification may be viewed at:

<https://www.planningportal.nsw.gov.au/major-projects/project/25986>

Appendix B – Recommended Modification Instrument

Available on the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/25986>

Appendix C – Consolidated Consent

Available on the Department's website at:

<https://www.planningportal.nsw.gov.au/major-projects/project/25986>