



NSW GOVERNMENT
Department of Planning

***MAJOR PROJECT ASSESSMENT:
Upgrade of the Hydrodesulphurisation Unit
Shell Refinery, Clyde***



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

March 2008

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EXECUTIVE SUMMARY

Shell Refining (Australia) Pty Ltd (Shell) proposes to upgrade the hydrodesulphurisation (HDS) unit within its Clyde refinery. The Federal Government's *Fuel Quality Standards Act, 2000* requires that the sulphur content of diesel fuel be reduced from 50 parts per million (ppm) to 10ppm by 2009. The HDS unit removes sulphur from diesel fuel and was commissioned at the refinery in 1962. Shell propose to update the HDS unit so that diesel fuel produced at the Clyde Refinery will meet the Federal Government's new standard for sulphur content in diesel fuel

The proposed upgrade would be completed by November 2008.

It has a capital cost of \$35 million, and would employ up to 30 workers during construction. There would be no change to the workforce during operation.

The proposal is classified as a Major Project under Part 3A under the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is a development for the manufacture of fuels with a capital investment value of more than \$20 million. Consequently, the Minister is the approval authority for the project.

During the exhibition period, the Department received 4 submissions on the project, all from government agencies. These agencies generally support the project subject to conditions.

The Department has assessed the merits of the project in accordance with the relevant requirements in the EP&A Act, and is satisfied that the impacts of the project can be mitigated and/or managed to ensure an acceptable level of environmental performance.

It is also satisfied that the project is unlikely to have any significant off-site impacts, as it is located in a designated industrial area and is consistent with the aims and objectives of *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*.

As the project would reduce the amount of sulphur in diesel from 50ppm to 10ppm, attract a capital investment of \$35 million and employ up to 30 workers during construction, the Department believes the project is in the public interest and should be approved subject to conditions.

1. PROPOSED DEVELOPMENT

1.1 Background

Shell Refining (Australia) Pty Ltd (Shell) has operated the oil refinery at Clyde since the early 1920s (see Figure 1).

This refinery is located adjacent to Duck River in the Camellia industrial area, and is surrounded by industrial development and Rosehill racecourse. The closest residence to the refinery is located in John Street in Ermington and is about 500 metres away.

The refinery currently produces up to 14 megalitres (ML) of crude oil products per day, including 3.5 ML of diesel.

The hydrodesulphurisation (HDS) unit at the refinery is used to remove sulphur from diesel fuel. The HDS was commissioned in 1962. The HDS unit was previously upgraded in 2002 in order to comply with the Federal Government's standard for sulphur content in diesel of a maximum 50 parts per million (ppm), as defined under the *Fuel Quality Standards Act, 2000* (FQS Act). A further upgrade to the HDS unit is now required to meet a new standard for sulphur content in diesel of 10ppm that will come into force in 2009.

Shell proposes to upgrade the HDS, and is seeking approval for the upgrade under Part 3A of the EP&A Act.



Figure 1: Project Location

1.2 Project Description

Shell proposes to upgrade the HDS unit and replace several of its components, in order to produce diesel with 10ppm of sulphur content, as will be required under the FQS Act from 2009.

The proposal is summarised in Table 1, depicted in Figures 2, 3, 4 and 5 and described in full in the Environmental Assessment (EA) in Appendix E.

Table 1: Major components of the project

Component	Description
Summary	Upgrade to the existing HDS unit including installation of a new reactor to handle increased catalyst in order to reduce the sulphur content in diesel from 50ppm to 10ppm.
<i>HDS Process</i>	<p>Sulphur is removed from diesel through the following processes:</p> <ul style="list-style-type: none"> diesel and hydrogen are combined at an elevated pressure and heated via burning fuel gas in the HDS heater. Emissions from the HDS heater are discharged through the HDS stack; contact between the diesel/hydrogen product and solid catalyst in the HDS reactor, results in separation of sulphur from the diesel as hydrogen sulphide (H₂S); hydrogen rich gases and H₂S are then removed from the diesel by high and low pressure separators. The majority of the hydrogen rich gas is reused in the process, and the remaining H₂S is recovered by the amine treater unit for conversion into elemental sulphur by the sulphur recovery unit. Residual H₂S is converted into sulphur dioxide prior to discharge through the fluidised catalytic cracking unit (FCCU) stack; light materials, dissolved H₂S and water are removed from the desulphurised diesel by a steam stripper and vacuum drier for use in the gas recovery boiler or for treatment prior to discharge. Residual gases from the gas recovery boiler are discharged through the FCCU stack.
<i>Associated Infrastructure</i>	<p>Shell proposes to upgrade the HDS unit by:</p> <ul style="list-style-type: none"> modifying the system to blend diesel; increasing the temperature of the diesel/hydrogen product, via an increase in the amount of gas fuel burnt in the HDS heater and amount of emissions through the HDS stack; installing an additional HDS reactor including a quench system; installing a spare fresh/recycle gas compressor; and installing new product quality analysers and implementing an advanced control system.
<i>Site Access</i>	The new components of the HDS unit are to be transported via sea to Newcastle or Port Kembla, then delivered via road, accessing the site at Durham and Devon Streets.
<i>Construction</i>	6 months during 2008.
<i>Hours of Operation</i>	Audible works between 7am and 6pm Monday to Friday and 7am and 1pm Saturday, and inaudible works at other times.
<i>Capital Cost</i>	\$35 million
<i>Employment</i>	Up to 30 during construction. The number of operational jobs will not change.
<i>Production Input</i>	<p>Quantities of the following key inputs would change:</p> <ul style="list-style-type: none"> reactor catalyst would increase from 90m³/24 months to 240m³/18 months; fuel gas would increase from 4.2t/day to 8.0t/day; lubricity additive would increase from 15t/month to 15-35t/month; and electricity requirements would increase from 7000MWh/year to 7200MWh/year.
<i>Production Output</i>	<p>The upgraded HDS unit would produce 10ppm sulphur diesel fuel and change quantities of the following outputs:</p> <ul style="list-style-type: none"> increase catalyst to be removed from 90m³/24 months to 240m³/18 months; increase emissions of sulphur oxides in HDS flue gas from 0.07g/s to 0.19g/s; and increase in hydrogen sulphide off-gas.

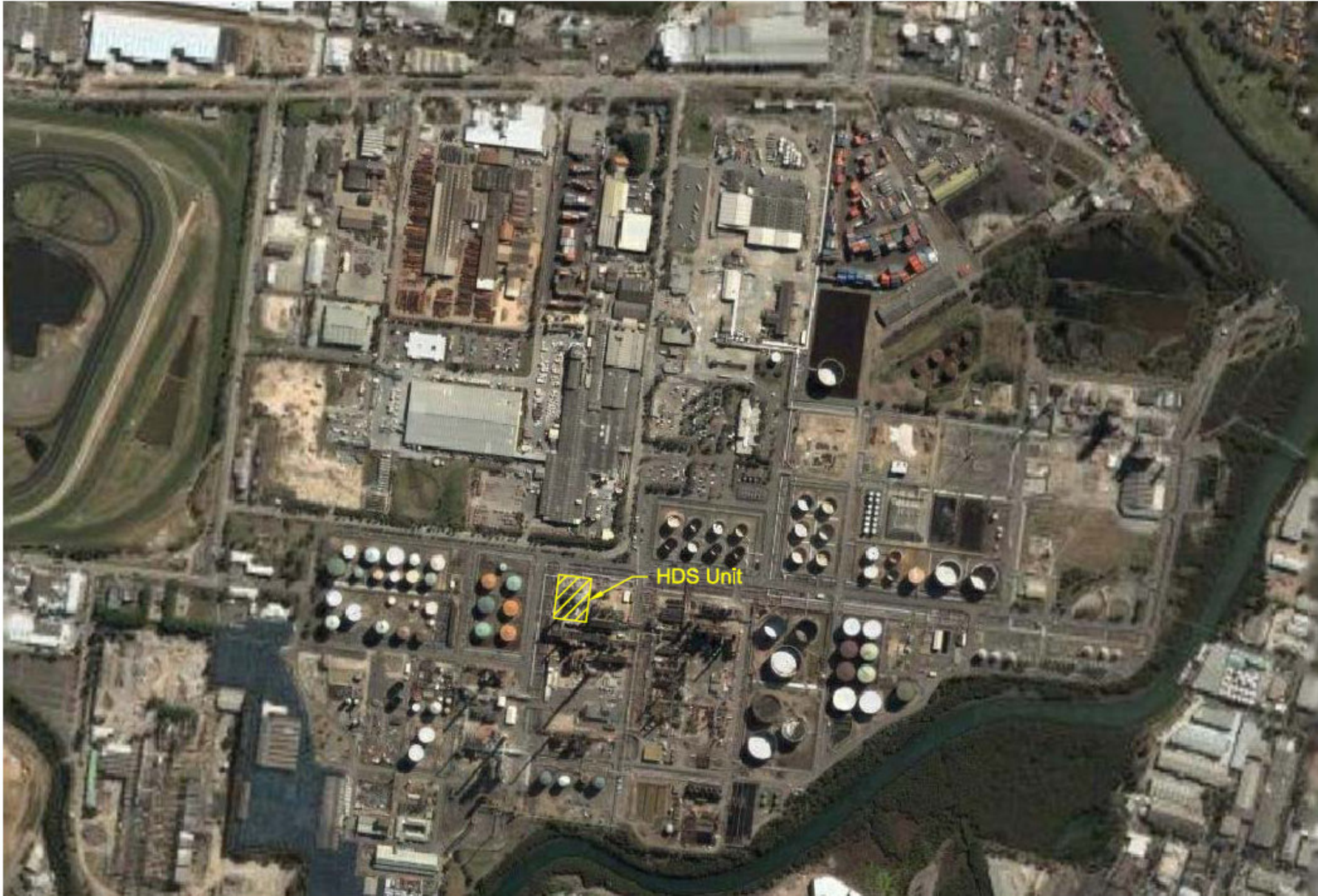


Figure 3: Shell Refinery Layout – location of the HDS

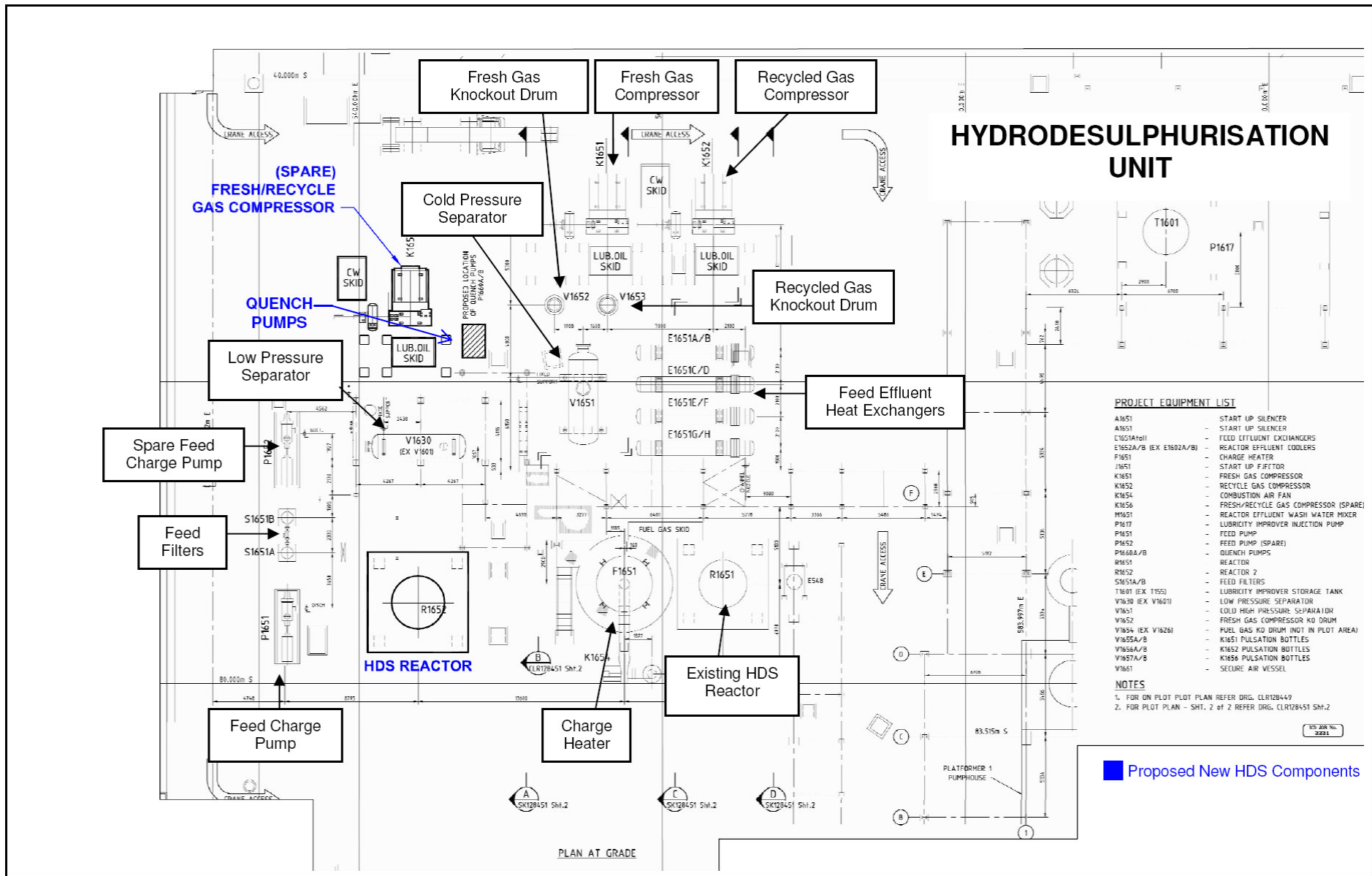


figure 4: Upgrade of the existing HDS

2. STATUTORY CONTEXT

2.1 Major Project

The proposal is classified as a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act) because it meets the criteria of Clause 10 of Schedule 1 of the *State Environmental Planning Policy (Major Projects) 2005*, as it is development for the purpose of the manufacture of fuels with a capital investment value of more than \$20 million.

Consequently, the Minister for Planning is the approval authority for the project.

2.2 Permissibility

The site is zoned Regional Enterprise under the *Sydney Regional Environmental Plan No. 28 – Parramatta*. The proposed upgrade of the HDS is classified as an industry and is permissible with consent in this zone.

Consequently, the Minister for Planning may approve the carrying out of the project.

2.3 Exhibition and Notification

Under Section 75H(3) of the EP&A Act, the Director-General is required to make the environmental assessment of a project publicly available for at least 30 days.

After accepting the environmental assessment for the project, the Department:

- made it publicly available from 17 January 2008 until 18 February 2008:
 - on the Department's website; and
 - at the Department's Information Centre, Parramatta City Council, and the Nature Conservation Council;
- notified relevant State government authorities and Parramatta City Council by letter;
- notified landowners in the vicinity of the site about the exhibition period by letter; and
- advertised the exhibition in the Parramatta Advertiser.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

2.4 Objects of the Environmental Planning and Assessment Act, 1979

The Minister is required to consider the objects of the EP&A Act when he makes decisions under the Act. These objects are detailed in Section 5 of the Act, and include:

'The objects of this Act are:

- (a) *to encourage:*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
 - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
 - (iii) *the protection, provision and co-ordination of communication and utility services,*
 - (iv) *the provision of land for public purposes,*
 - (v) *the provision and co-ordination of community services and facilities, and*
 - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
 - (vii) *ecologically sustainable development, and*
 - (viii) *the provision and maintenance of affordable housing, and*
- (b) *to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and*
- (c) *to provide increased opportunity for public involvement and participation in environmental planning and assessment.'*

The objects of most relevance to the Minister's decision on whether or not to approve this project are those under Section 5(a)(i), (ii), (vi) and (vii).

With respect to ecologically sustainable development (ESD), the EP&A Act adopts the definition in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD ‘requires the effective integration of economic and environmental considerations in decision-making processes’ and that ESD ‘can be achieved through’ the implementation of the principles and programs including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms. In applying the precautionary principle, public decisions should be guided by careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment and an assessment of the risk-weighted consequences of various options.

The Department has fully considered the objects of the EP&A Act, including the encouragement of ESD, in its assessment of the project application.

The assessment undertaken by Shell integrates all significant economic, social and environmental considerations and seeks to avoid any potential serious or irreversible damage to the environment, based on an assessment of risk-weighted consequences.

Shell has undertaken an environmental risk analysis of the project, and considered the project in the light of the principles of ESD.

2.5 Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General’s report is to include a copy of or reference to the provisions of any:

- *State Environmental Planning Policy* (SEPP) that substantially govern the carrying out of the project; and
- environmental planning instrument that would (but for Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project.

The Department has considered the project against the relevant provisions of several environmental planning instruments (including SEPPs 33 and 55; *Sydney Regional Environmental Plan 28*; and *Parramatta Local Environmental Plan 2001*). The Department is satisfied that, subject to the implementation of the recommended conditions of approval, the proposal is generally consistent with the aims and objectives of these instruments (see Appendix C).

2.6 Statement of Compliance

Under Section 75I of the EP&A Act, the Director-General’s report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project.

The Department is satisfied that the environmental assessment requirements of the project have been complied with.

3. ISSUES RAISED DURING CONSULTATION

During the exhibition period, the Department received a total of four submissions on the proposal. All of these submissions were from public authorities (NSW Maritime, New South Wales Fire Brigade [NSWFB], Department of Environment and Climate Change [DECC] and Department of Water and Energy [DWE]).

The NSWFB requested that a Fire Safety Study be provided prior to the commencement of construction. The DECC recommended environmental standards and management controls that should be implemented in relation to air quality and noise. NSW Maritime and the DWE did not object to the project. A full copy of these submissions is attached in Appendix D.

3.1 Response to Submissions

As the submissions did not require any additional information or changes to the proposal, Shell was not required to formally respond to the submissions.

The Department has considered the advice contained in the submissions in its assessment of the project (see Section 4).

4. ASSESSMENT OF ENVIRONMENTAL IMPACTS

4.1 Air Quality

A detailed air quality assessment of the proposal was undertaken by Holmes Air Sciences using AUSPLUME dispersion modelling in accordance with the DECC's *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (2005). The AUSPLUME dispersion model was developed to identify the total impacts of pollutants from the refinery, including from increased emissions from the HDS stack. At the DECC's request, Shell also developed a CALPUFF dispersion model to verify the AUSPLUME predictions.

The results of the AUSPLUME model indicated that the maximum predicted concentrations of pollutants would comply with the DECC's impact assessment criteria for all pollutants at or beyond the boundary of the premises. However, the CALPUFF model indicated that maximum predicted concentrations for sulphur dioxide (SO₂) for 10-minute, 1 hour and 1 day, and for sulphuric acid (SO₃) for 1-hour average 99th percentile concentration, would be above the DECC's impact assessment criteria.

Neither Holmes Air Sciences, nor technical experts from the DECC, have been able to determine the reasons for the discrepancies between the AUSPLUME and CALPUFF predictions. It is noted, however, that similar discrepancies were identified in Shell's air assessment for the upgrade to the FCCU plant, which was approved by the Minister last year and for a number of other industrial projects in NSW. In the case of the FCCU upgrade project, the DECC determined discrepancies could not be resolved during the assessment and instead recommended that Shell undertake ambient air quality monitoring of sulphur oxides during construction and operation of the upgrade, and that Shell implement mitigation measures, if required.

As the DECC considers that sulphur oxide emissions from the existing and the upgrade HDS unit would only be a minor contribution to the total sulphur oxides emissions from the site, it has not recommended that any additional ambient air quality monitoring be undertaken as part of this current project. Instead, the DECC has recommended that emission limits for the HDS stack, including limits for sulphur dioxide and sulfuric acid, be included in the approval. The DECC has advised that compliance with these stack limits, should result in acceptable impacts on the local and regional air shed.

Shell's assessment has confirmed that the stack emission limits recommended by the DECC can be met. Both the Department and the DECC are therefore satisfied that direct emissions from the project, including sulphur dioxide and sulfuric acid emissions, would be limited and acceptable. Furthermore, the associated reduction of sulphur in diesel resulting from proposed upgrade should result in a substantial improvement to the local and regional airshed. The Department therefore considers that air quality impacts are satisfactory, particularly in light of the reduced sulphur levels in diesel fuel that will result from the project.

4.2 Hazards

A Preliminary hazards analysis (PHA) was prepared in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* (SEPP 33). The PHA identified:

- potential hazardous events associated with the proposal, in particular events resulting from flammable liquid, vapour or toxic gas leak;
- potential consequences of a flammable liquid, vapour or toxic gas leak;
- the frequency of the potential events and their associated consequences; and
- the associated risks of off-site injury/fatality, accident propagation and damage to the biophysical environment.

The PHA demonstrated that the project would not be considered hazardous under SEPP 33.

The New South Wales Fire Brigade (NSWFB) reviewed the EA and advised that it adequately addressed all anticipated hazards for the site. The NSWFB requested that a Fire Safety Study be prepared and submitted prior to the commencement of construction.

The Department also considers that the assessment adequately addressed potential hazardous risks associated with the project. To ensure risks associated with the project are adequately managed and mitigated, the recommended conditions of approval require that Shell prepare and implement a Fire Safety Study, a Hazard and Operability Study, a Final Hazard Analysis and a Construction Safety Study, prior to the commencement of construction. Shell would also be required to prepare and implement an Emergency Plan and Safety Management System, prior to the commencement of commissioning.

4.3 Greenhouse Gas

An assessment of the direct and indirect greenhouse gas generation from the upgraded HDS unit was undertaken, in accordance with the *Australian Greenhouse Office, Factors and Methods Workbook* (2006). The study indicated that the upgraded HDS would increase greenhouse gas generation by 13,459 tonnes of carbon dioxide equivalent (t/CO₂-e) per annum, compared with the existing greenhouse gas generation from the HDS unit. The majority of these greenhouse gases would be directly generated (Scope 1) from the increased burning of fuel gas in the HDS heater and use of additional hydrogen.

The assessment noted that greenhouse gas generated by the upgraded HDS unit would constitute 8.3 percent of total greenhouse gas generated by the refinery, compared with 6.3 percent for the existing HDS unit. The assessment concluded that as the HDS unit would contribute less than 0.05% of NSW's total greenhouse gas output, it was considered minor.

The DECC raised concern that the study did not identify an appropriate benchmark for greenhouse gas generation by the upgraded HDS. As the greenhouse gas generation by the upgraded HDS unit would be minimal compared with state wide emissions, however, the DECC determined that no further information was required.

Whilst the assessment indicates that the proposal would slightly increase greenhouse gas generation, the Department considers that this increase is minor. In addition, the Department considers that the proposal would result in broader air quality improvements from the reduction of sulphur content in diesel.

4.2 Other Impacts

Other issues raised during the assessment process and the Department's consideration of the issues are summarised in Table 3 below.

Table 3: Summary of Other Impacts

Aspect	Comment	Recommendation
Construction Noise	<ul style="list-style-type: none">The assessment indicates that the daytime construction noise levels would be within the DECC's daytime noise construction criteria at the nearest residential receivers;Construction activities undertaken during the evening and night, however, may be audible during certain weather enhancing conditions;The DECC has therefore requested that Shell prepare a management plan to ensure that construction activities do not adversely impact surrounding receivers and that no audible construction activities occur during evening and night time periods.	<ul style="list-style-type: none">The Department considers that it is important that Shell manage the construction activities to ensure that surrounding receivers are not adversely impacted by construction noise;The recommended conditions of approval therefore require that a construction noise management plan be prepared, and that no audible construction activities occur outside general construction hours.
Operational Noise	<ul style="list-style-type: none">Operational noise of the upgraded HDS unit would meet the INP noise criteria, provided that the new quench pump has an operation limit of 85dB(A) at 1 metre from the surface of the pump;Shell has committed to purchase a quench pump with an operational noise limit of 85dB(A) at 1 metre from the surface of the pump.	<ul style="list-style-type: none">The Department considers that the operational noise impacts are limited and acceptable.
Soil	<ul style="list-style-type: none">The proposal would disturb acid sulphate soils (ASS) and remove 150m³ of spoil, including 50m³ of spoil containing high levels of total petroleum hydrocarbons;Shell proposes to process the contaminated soil on site, prior to its removal for landfilling;Shell also proposes to prepare a soil management plan outlining methods to monitor and manage contaminated soils and ASS.	<ul style="list-style-type: none">To ensure that ASS and contaminated spoil are appropriately managed, the recommend conditions of approval require that Shell prepare a soil and water management plan outlining methods to monitor and manage soils, and requires that contaminated spoil be disposed of at an appropriately licensed facility.

Aspect	Comment	Recommendation
Water	<ul style="list-style-type: none"> As the groundwater table is located a minimum of 1.1 metres below the surface, it is likely to be encountered during excavation; Shell has committed to undertake potentially polluting construction activities, such as refuelling of equipment, away from excavation sites, and to extract any groundwater encountered in accordance with the refinery's water extraction policy; In the event surface water is contaminated by excavated soils during construction, it would be sent to the on-site wastewater treatment plant; There would be no operational impacts on groundwater and surface water. 	<ul style="list-style-type: none"> The DWE did not raise any objection to the proposal. To ensure risks to groundwater and surface water are adequately managed, the conditions of approval require that a soil and water management plan be prepared, outlining methods to manage and monitor surface and groundwater.
Traffic	<ul style="list-style-type: none"> The project will generate up to 140 truck movements during construction to deliver new equipment and construction machinery to the site, as well as up to 60 vehicle movements a day for construction workers; To ensure impacts from construction are limited, Shell proposes to prepare and implement a transport management plan outlining processes to manage construction related traffic, including transportation of wide loads during off-peak periods; There will be no changes to operational traffic resulting from the proposal. 	<ul style="list-style-type: none"> The Department considers that impacts from construction traffic would be limited and acceptable; However, to ensure movement of heavy vehicles, particularly wide loads, are adequately managed, the recommended conditions of approval require Shell to prepare and implement a construction transport management plan.
Waste	<ul style="list-style-type: none"> The amount of catalyst removed from the reactor would increase from 90m³/24 months to 240m³/18 months; Shell proposes that the catalyst be classified, removed and transported to an appropriately licensed facility, in accordance with Shell's existing Environmental Protection Licence (EPL). 	<ul style="list-style-type: none"> The Department considers that the increased use of catalyst is acceptable, provided it continues to be handled in accordance with the EPL.
Visual	<ul style="list-style-type: none"> The visual impact of the upgraded HDS would be negligible as it would be located within the existing refinery and would be lower than other refinery facilities. 	<ul style="list-style-type: none"> The Department considers that the upgraded HDS unit would not result in any visual impacts on surrounding properties.

5. RECOMMENDED CONDITIONS

The Department has prepared recommended conditions of approval for the project. These conditions are required to:

- limit the emission of air pollutants;
- manage hazards and risks on the site;
- limit construction hours and manage construction noise impacts; and
- manage soil and water, including the control and disposal of contaminated spoil and acid sulphate soils.

The Department has provided the draft conditions of approval for the project to relevant government authorities for comment, and has incorporated these comments into the conditions of approval where appropriate.

6. CONCLUSION

The Department has assessed the merits of the project in accordance with the EP&A Act, and is satisfied that the impacts of the project can be mitigated and/or managed to ensure an acceptable level of environmental performance. It is also satisfied that the project is unlikely to have any significant off-site impacts, as it is located in a designated industrial area and is consistent with the aims and objectives of *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*.

The Proposal would provide a range of economic, social and environmental benefits to the region, as it would:

- ensure that diesel produced at the refinery meets the Federal government's new standards for sulphur content in diesel;
- reduce the amount of sulphur in diesel fuel produced at the refinery from 50ppm to 10ppm and thereby generally improve the local and regional airshed;
- attract a capital investment of \$35 million; and
- employ up to 30 workers during construction.

Consequently, the Department believes the project is in the public interest and should be approved subject to conditions.

7. RECOMMENDATION

It is recommended that the Minister:

- consider the findings and recommendations of this report;
- approve the project application, subject to conditions, under section 75J of the *Environmental Planning and Assessment Act 1979*; and
- sign the attached project approval (see Appendix B).

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David Kitto
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Major Project Assessment

Sam Haddad
Director-General

APPENDIX A – SUMMARY OF KEY RECOMMENDED CONDITIONS

Aspect	Condition	Requirement
<i>Schedule 3: Specific Environmental Conditions</i>		
<i>Air Quality</i>	9-10	Air emission limits and dust minimisation requirements.
<i>Hazards</i>	11-17	Hazard and safety studies required prior to construction, commissioning and during operation.
<i>Noise</i>	18-19	Hours of operation and construction noise management requirements.
<i>Soil and Water</i>	20-21	Soil and Water management requirements including contaminated spoil management.
<i>Waste</i>	22-23	Waste management requirements.
<i>Traffic</i>	24-25	Construction traffic management requirements and parking controls.
<i>Schedule 4: Environmental Management and Monitoring</i>		
<i>Auditing</i>	26-27	Hazard audit requirements
<i>Incident Reporting</i>	28-30	Incident reporting requirements.

APPENDIX B – RECOMMENDED CONDITIONS OF APPROVAL

APPENDIX C – CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development applies to the facility as a potentially hazardous facility. SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/or offence (odour, noise etc). A development is defined as potentially hazardous and/ or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/ or offence impact on off-site receptors.

A preliminary hazard analysis (PHA) was undertaken in accordance with the SEPP 33 to assess the hazards and risks associated with proposal. The PHA indicated that the project would comply with the relevant guidelines for hazard and risk, subject to adoption of recommendations defined in the PHA.

The Department is satisfied with the consideration of SEPP 33 contained in the Environmental Assessment.

State Environmental Planning Policy No. 55 – Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Land applies to the site. SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a project application. Clause 7 of SEPP 55 states that:

- 7(1) *A consent authority must not consent to the carrying out of any development on land unless:*
- (a) *it has considered whether the land is contaminated, and*
 - (b) *if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
 - (c) *if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

The project would be located within the existing Clyde refinery in the Camellia industrial area. Minor excavation of potentially contaminated spoil would be undertaken as part of the proposal.

The Department is satisfied that this contamination would not pose a significant issue for the proposal.

Sydney Regional Environmental Plan No 28 - Parramatta

Sydney Regional Environmental Plan No 28 – Parramatta applies to the site. Sydney REP No. 28 – Parramatta identifies eight precincts within the Parramatta Primary Centre. The Clyde refinery falls within the Camellia Precinct. Sydney REP No. 28 for the Camellia Precinct aims to protect and support the integrity of the Camellia Precinct as one of Sydney's significant industrial hubs, and it aims to protect and enhance local and regional biodiversity, particularly maximising the extent and integrity of aquatic and natural land areas along the Parramatta River, Duck River, Duck Creek and A'Becketts Creek corridors. The Parramatta City Council has assessed the project against the relevant provisions of the Sydney REP No. 28 – Parramatta including clause 41M(4) (variation to the height limit), clause 10 schedule 2 (preparation of the master plan) and other provisions relating to traffic, parking and transport, and is satisfied that the project is consistent with the aims and objectives of the Sydney REP No. 28 – Parramatta.

Parramatta Local Environmental Plan 2001

Section 4(2) of the *Parramatta Local Environmental Plan 2001* (LEP) states that it does not apply to "land within the Camellia Precinct or Rydalmere Precinct within the meaning of Sydney Regional Environmental Plan No 28— Parramatta". As the Shell site is situated within the Camellia Precinct, the Parramatta Local Environment Plan does not apply to the project.

APPENDIX D – SUBMISSIONS

APPENDIX E – ENVIRONMENTAL ASSESSMENT
