Appendix B

Environmental Protection Licence

Environment Protection Licence

Licence - 837

Licence Details	
Number:	837
Anniversary Date:	02-May

Licensee
CALTEX REFINERIES (NSW) PTY LTD
LOCKED BAG 2000
TAREN POINT NSW 2229

Premises
CALTEX REFINERIES (NSW) PTY LTD
2 SOLANDER STREET
KURNELL NSW 2231

Scheduled Activity
Chemical Storage
Petroleum and Fuel Production
Waste Processing (non-thermal treatment)

Fee Based Activity	Scale
Chemical storage waste generation	> 100 T generated or stored
Non-thermal treatment of hazardous and other waste	> 0 T treated
Petroleum products and fuel production	> 500000 T produced
Petroleum products storage	> 100000 kL stored

Region
Metropolitan - Illawarra
Level 3, NSW Govt Offices, 84 Crown Street WOLLONGONG NSW 2500
Phone: (02) 4224 4100
Fax: (02) 4224 4110
PO Box 513 WOLLONGONG EAST
NSW 2520

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Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act); and
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

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The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

CALTEX REFINERIES (NSW) PTY LTD
LOCKED BAG 2000
TAREN POINT NSW 2229

subject to the conditions which follow.

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1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Chemical Storage	Chemical storage waste generation	> 100 T generated or stored
Waste Processing (non-thermal treatment)	Non-thermal treatment of hazardous and other waste	> 0 T treated
Petroleum and Fuel Production	Petroleum products and fuel production	> 500000 T produced
Chemical Storage	Petroleum products storage	> 100000 kL stored

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
CALTEX REFINERIES (NSW) PTY LTD
2 SOLANDER STREET
KURNELL
NSW 2231
LOT 56 DP 908, LOT 57 DP 908, LOT 62 DP 908, PART LOT 11 DP 7632, PART LOT 12 DP 7632, LOT 189 DP 7632, LOT 190 DP 7632, LOT 43 DP 8135, LOT 44 DP 8135, LOT 45 DP 8135, LOT 46 DP 8135, PART LOT 77 DP 8135, LOT 78 DP 8135, LOT 79 DP 8135, PART LOT 122 DP 8135, PART LOT 123 DP 8135, PART LOT 124 DP 8135, PART LOT 125 DP 8135, LOT 137 DP 8135, PART LOT 138 DP 8135, LOT 151 DP 8135, LOT 152 DP 8135, LOT 48 DP 9564, LOT 77 DP 9564, LOT 78 DP 9564, LOT 81 DP 9564, LOT 1 DP 126647, LOT 2 DP 126647, LOT 1 DP 132055, PART LOT 1 DP 215818, LOT 2 DP 215818, LOT 1 DP 215819, LOT B DP 338897, LOT D DP 361103, PART LOT F DP 361103, LOT G DP 361103, LOT J DP 362655, LOT K DP 362655, LOT H DP 362655, PART LOT 146 DP 455883, LOT 147 DP 455883, LOT 148 DP 455883, LOT 1 DP 652262, LOT 139 DP 662996, LOT 139 DP 662997, LOT 283 DP 752064, LOT 570 DP 752064, LOT 24 DP 776328, LOT 25 DP 776328, LOT 1 DP 1044690, LOT 1 DP 1087718, PART LOT 2 DP 1087718, LOT 3 DP 1087718, PART LOT 4 DP 1087718, LOT 5 DP 1087718, LOT 6 DP 1087718, LOT 1 DP 1087807, LOT 2 DP 1087807
LOT 1 PO1963/147; LOT 1 PO1967/168

A2.2 The PART LOTS 137, 138, 140-145, 149 & 150 DP 8135 and PART LOTS 146-148 DP 455883 applies to the areas bound by the green highlight labelled “PT137 DP 8135; PT 138 DP 8135; PT 140 DP 8135; PT 141 DP 8135; PT 142 DP 8135; PT 143 DP 8135; PT 144 DP 8135; PT 145 DP 8135; PT 146 DP

455883; PT 147 DP 455883; PT 148 DP 455883; PT 149 DP 8135 and PT 150 DP 8135" on map titled "Inset Map B – Attachment 4 Caltex Land Holdings Indicated" submitted to the EPA with letter dated 9 November 2005.

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Ancillary Activity
Electricity Generating Works
Shipping Facilities (Bulk)

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
4	Air emissions monitoring		Sulfur Recovery Unit (SRU) No. 1 Waste Gas Incinerator (45F-453) labelled "4" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Discharge at Point 8.

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5	Air emissions monitoring		Sulphur Recovery Unit (SRU) No. 2 Waste Gas Oxidiser (45F-854) labelled "5" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Discharge is at Point 8.
6	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Stack serving plant 4 fluid catalytic cracking unit (FCCU 1) labelled "6" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.
7	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Stack serving plant 34 fluid catalytic cracking unit (FCCU 2) labelled "7" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.
8	Discharge to air Air emission monitoring	Discharge to air Air emission monitoring	Common facility stack (45F10) labelled "8" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.
29	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Boiler No. 1 serving powerplant 11F -1A labelled "29" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Discharge at Point 38.
30	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Boiler No. 2 serving power plant 11F-1B labelled "30" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Discharge at Point 38.
31	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Boiler No. 3 serving Plant 11F-1C labelled "31" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Discharge at Point 38.
32	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Boiler No. 4 serving Plant 11 labelled "32" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Discharge at Point 38.
34	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Stack serving crude distillation unit furnace No. 3 (45F-100X) labelled '34' on on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.
35		Discharge to air	Refinery flare (9F-2X) labelled "35" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Monitoring is at Points 36 & 37.

36	Volume monitoring		Continuous volumetric flow rate monitoring for south flare header flow (FE-090) labelled "36" on Drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Discharge at Pt 35
37	Volume monitoring		Continuous volumetric flow rate monitoring for north flare header flow (FE-091) labelled "37" on Drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Discharge at Pt 35
38		Discharge to air	Powerplant Boilers 1 to 4 serving Plant 11 labelled "38" on Drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Monitoring is at Points 29, 30, 31 & 32

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

P1.3 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1		Discharge to waters	Cooling water pipe discharging into Botany Bay labelled "1" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Monitoring is at Point 26 and Point 33.
2		Discharge to waters	Submerged ocean outfall at Yena Gap labelled "2" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Monitoring is at Point 27.
3		Discharge to waters	Submerged ocean outfall at Tabbagai Gap labelled "3" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Monitoring is at Point 28.

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15	Groundwater quality monitoring	Bioremediation plot (landfarm) - permanent monitoring well PWM 8 labelled "15" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.
16	Groundwater quality monitoring	Bioremediation plot - (landfarm) permanent monitoring well (PMW) 33 labelled "16" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.
26	Discharge quality monitoring	Final manhole in cooling water system labelled "26" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Discharge is at Point 1.
27	Effluent quality and volume monitoring	Sampling port in wastewater treatment plant labelled "27" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Discharge is at Point 2.
28	Effluent quality and volume monitoring	Caltex Lubricant Oil Refinery (CLOR) wastewater treatment plant labelled "28" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007. Note: Discharge is at Point 3.
33	Total volume monitoring	Pump located on the wharf labelled "33" on drawing No. 18588 titled "Environment Protection Licence EPA Identification Points" submitted to the EPA with letter on 15 June 2007.

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

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L2 Load limits

L2.1 The actual load of an assessable pollutant discharged from the premises during the reporting period must not exceed the load limit specified for the assessable pollutant in the table below.

Note: An assessable pollutant is a pollutant which affects the licence fee payable for the licence.

L2.2 The actual load of an assessable pollutant must be calculated in accordance with the relevant load calculation protocol.

Assessable Pollutant	Load limit (kg)
Arsenic (Air)	14.00
Benzene (Air)	6000.00
Benzo(a)pyrene (equivalent) (Air)	21.00
BOD (Coastal Water)	33500.00
Fine Particulates (Air)	180000.00
Hydrogen Sulfide (Air)	9700.00
Lead (Air)	65.00
Mercury (Air)	8.00
Nitrogen Oxides - Summer (Air)	
Nitrogen Oxides (Air)	2300000.00
Oil and Grease (Coastal Water)	12000.00
Sulfur Oxides (Air)	5000000.00
Total PAHs (Coastal Water)	75.00
Total Phenolics (Coastal Water)	2500.00
Total suspended solids (Coastal Water)	80000.00
Volatile organic compounds - Summer (Air)	
Volatile organic compounds (Air)	3000000.00

L3 Concentration limits

L3.1 For each monitoring/discharge point or utilisation area specified in the table\s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

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L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\s.

L3.4 Air Concentration Limits

POINT 7

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Nitrogen Oxides	milligrams per cubic metre	2000	dry, 273K, 101.3kPa	7 percent	
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	100	dry, 273K, 101.3kPa		
Sulphur dioxide	milligrams per cubic metre	2700	dry, 273K, 101.3kPa		1 hour

POINT 8

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	100	dry, 273K, 101.3kPa		
Hydrogen Sulfide	milligrams per cubic metre	5	dry, 273K, 101.3kPa		
Sulphur dioxide	milligrams per cubic metre	3000	dry, 273K, 101.3kPa		1 hour

POINT 29

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Nitrogen Oxides	milligrams per cubic metre	500	dry, 273K, 101.3kPa	7 percent	
Sulphur dioxide	milligrams per cubic metre	750	dry, 273K, 101.3kPa		1 hour

POINT 30

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Sulphur dioxide	milligrams per cubic metre	750	dry, 273K, 101.3kPa		1 hour
Nitrogen Oxides	milligrams per cubic metre	500	dry, 273K, 101.3kPa	7 percent	

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POINT 31

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Sulphur dioxide	milligrams per cubic metre	750	dry, 273K, 101.3kPa		1 hour
Nitrogen Oxides	milligrams per cubic metre	500	dry, 273K, 101.3kPa	7 percent	

POINT 32

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Nitrogen Oxides	milligrams per cubic metre	500	dry, 273K, 101.3kPa	7 percent	
Sulphur dioxide	milligrams per cubic metre	750	dry, 273K, 101.3kPa		1 hour

POINT 34

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	100	dry, 273K, 101.3kPa		
Nitrogen Oxides	milligrams per cubic metre	120	dry, 273K, 101.3kPa	7 percent	
Hydrogen Sulfide	milligrams per cubic metre	5	dry, 273K, 101.3kPa		
Sulphur dioxide	milligrams per cubic metre	1370	dry, 273K, 101.3kPa		1 hour

L3.5 Water and/or Land Concentration Limits

POINT 1

Pollutant	Units of Measure	50 percentile concentration limit	80 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit
Chlorine	milligrams per litre	0.2			0.5
Temperature	degrees Celsius				42

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POINT 2

Pollutant	Units of Measure	50 percentile concentration limit	80 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit
Arsenic	milligrams per litre	0.07			-
Biochemical oxygen demand	milligrams per litre	20		30	-
BOD (Wet)	milligrams per litre				350
Lead	milligrams per litre	0.025			-
Nickel	milligrams per litre	0.03			-
Nitrogen (ammonia)	milligrams per litre			7.5	-
Oil and Grease	milligrams per litre			10	-
Oil and grease (Wet)	milligrams per litre				70
pH	pH			6.5-8.5	6.0-9.0
Phenols	milligrams per litre	0.3			2.7
Phenols (Wet)	milligrams per litre				5
Polycyclic aromatic hydrocarbons	milligrams per litre	0.03			0.5
Temperature	degrees Celsius				40
Total suspended solids	milligrams per litre	35		50	-
TSS (Wet)	milligrams per litre				100

POINT 3

Pollutant	Units of Measure	50 percentile concentration limit	80 percentile concentration limit	90 percentile concentration limit	100 percentile concentration limit

Biochemical oxygen demand	milligrams per litre			250
Oil and Grease	milligrams per litre			50
pH	pH		6.5-8.5	6.0-9.0
Phenanthrene	milligrams per litre	0.02		-
Temperature	degrees Celsius			45
Total Phenolics	milligrams per litre			4
Total suspended solids	milligrams per litre			50

Note: The pH limit specified for Points 2 and 3 is based on a 6 minute rolling average.

Note: The SO2 concentration limits for Points 7, 8, 29, 30, 31 and 32 will be reviewed following the next shutdown of the SRU which is due for completion in 2013.

L3.6 For the purposes of Condition L3.5, for periods when the biotreater wastewater treatment plant is under bypass conditions as specified in Condition O6.12 of this licence, only the concentration limits for pH and Temperature and those which include the term “Wet” applies for discharges from Point 2.

L3.7 For the purposes of Condition L3.5, phenols at Point 2 should be read as total phenolics.

L3.8 During planned shutdown of the sulfur recovery unit (SRU) (including amine regeneration process) for essential maintenance, the sulfur dioxide (SO2) emission rate from the premises must not exceed 1600 kg/h for more than 8 hours, while process adjustments are being made.

Note: For the purpose of this condition, notification of planned SRU shutdowns should be made to the EPA on or before one month prior to the scheduled shutdown date. Notification should be made in writing to Manager Illawarra, EPA PO Box 513 WOLLONGONG NSW 2520.

L3.9 The licensee must maintain and operate the Sulfur Recovery Unit (SRU) in a manner to ensure that the percentage of online time for the unit during the licence reporting period is 97 percent or above (excluding planned shutdowns).

Note: Should the reliability of the unit decrease, the EPA may require the licensee to investigate and implement further preferred reliability improvement options.

L4 Volume and mass limits

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L4.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
a) liquids discharged to water; or;
b) solids or liquids applied to the area;
must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of Measure	Volume/Mass Limit
1	kilolitres per day	400000

L5 Waste

L5.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled “Waste” and meeting the definition, if any, in the column titled “Description” in the table below.
Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled “Activity” in the table below.
Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits” in the table below.
This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
M260	Highly odorous organic chemicals (including mercaptans and acrylates)		Waste processing (non-thermal treatment)	Generated from licensee activities only
NA	Waste mineral oils unfit for their original intended use		Waste processing (non-thermal treatment)	Generated from licensee activities only
NA	General or Specific exempted waste	Waste that meets all the conditions of a resource recovery exemption under Clause 51A of the Protection of the Environment Operations (Waste) Regulation 2005	As specified in each particular resource recovery exemption	NA
NA	Waste	Any waste received on site that is below licensing thresholds in Schedule 1 of the POEO Act, as in force from time to time	-	NA
T100	Waste chemical substances arising from research and development or teaching activities including those which are not identified and/or		Waste processing (non-thermal treatment)	Generated from licensee activities only

	are new and whose effects on human health and/or the environment are not known		
G110	Organic solvents excluding halogenated solvents	Waste processing (non-thermal treatment)	Generated from licensee activities only
N205	Residues from industrial waste treatment/disposal operations	Waste processing (non-thermal treatment)	Generated from licensee activities only
M100	Waste substances & articles cnt PCB, PCN, PCT, PBB	Waste processing (non-thermal treatment)	Generated from licensee activities only
J160	Waste tarry residues	Waste processing (non-thermal treatment)	Generated from licensee activities only
J120	Waste oil/hydrocarbons mixtures/emulsions in water	Waste processing (non-thermal treatment)	Generated from licensee activities and/or transferred via pipeline from Caltex Banksmeadow Terminal
G160	Waste from prod formulat & use of organic solvents	Waste processing (non-thermal treatment)	Generated from licensee activities only
F110	Waste resin, latex, plasticiser, glue & adhesive	Waste processing (non-thermal treatment)	Generated from licensee activities only
F100	Waste ink, dye, pigment, paint, lacquer & varnish	Waste processing (non-thermal treatment)	Generated from licensee activities only
H100	Waste biocides and phytopharmaceuticals	Waste processing (non-thermal treatment)	Generated from licensee activities only
D270	Vanadium compounds	Waste processing (non-thermal treatment)	Generated from licensee activities only
N120	Soils contaminated with a controlled waste	Waste processing (non-thermal treatment)	Generated from licensee activities only
K130	Sewage sludge & residues	Waste processing (non-thermal treatment)	Generated from licensee activities only
D360	Phosphorus compounds excluding mineral phosphates	Waste processing (non-thermal treatment)	Generated from licensee activities only
M150	Phenols, phenol compounds including chlorophenols	Waste processing (non-thermal treatment)	Generated from licensee activities only
D300	Non toxic salts	Waste processing (non-thermal treatment)	Generated from licensee activities

			only
D210	Nickel compounds	Waste processing (non-thermal treatment)	Generated from licensee activities only
D120	Mercury; mercury compounds	Waste processing (non-thermal treatment)	Generated from licensee activities only
D220	Lead; lead compounds	Waste processing (non-thermal treatment)	Generated from licensee activities only
D330	Inorganic sulfides	Waste processing (non-thermal treatment)	Generated from licensee activities only
K110	Grease trap waste	Waste processing (non-thermal treatment)	Generated from licensee activities only
N140	Fire debris and fire washwaters	Waste processing (non-thermal treatment)	Generated from licensee activities only
D200	Cobalt compounds	Waste processing (non-thermal treatment)	Generated from licensee activities only
R100	Clinical and related wastes	Waste processing (non-thermal treatment)	Generated from licensee activities only
N230	Ceramic-based fibres similar to asbestos	Waste processing (non-thermal treatment)	Generated from licensee activities only
C100	Basic solutions or bases in solid form	Waste processing (non-thermal treatment)	Generated from licensee activities only
N220	Asbestos	Waste processing (non-thermal treatment)	Generated from licensee activities only
B100	Acidic solutions or acids in solid form	Waste processing (non-thermal treatment)	Generated from licensee activities only

L5.2 The licensee may receive used ballast and tank washing water from ships associated with the premises. The received ballast and tank washing water may be appropriately treated at the premises by the wastewater treatment plant. For the purposes of this licence, used ballast and tank washings from ships associated with the premises are not considered to be wastes.

L5.3 The licensee may receive water and/or wastewater generated from the maintenance of product transfer pipelines associated with the premises. The received water and/or wastewater generated from the product transfer pipelines may be appropriately treated at the premises by the wastewater treatment plant. For the purpose of this licence water and/or wastewater received from product transfer pipelines is not considered to be a waste.

L5.4 The licensee may receive biotreater sludge from another biological wastewater treatment plant in quantities sufficient for re-seeding (inoculating) the biological wastewater treatment plant (less than 500 tonnes per annum). For the purposes of this licence biotreater sludge is not considered to be a waste.

L5.5 The licensee may receive petroleum product mixtures known as “slops” from the Caltex Sydney Terminal at Banksmeadow (Licence 6950). The petroleum product mixtures must be received via pipeline only and may be separated or reprocessed back into individual petroleum products. For the purposes of this licence, petroleum product mixtures are not considered to be a waste.

Note: “Slops” is a general term used to describe petroleum product/s which do not meet the required product specification. It can be a mixture of two different petroleum products generated within a transfer pipeline when the remainder of one petroleum product is pushed through the pipeline using a second different product.

L6 Noise limits

L6.1 Noise from the premises must not exceed:
a) An LA10(15 minute) noise emission criterion of 70 dB(A) (0700 to 2200) seven days a week; and
b) An LA10(15 minute) noise emission criterion of 65 dB(A) at all other times,
except as expressly provided by this licence.

L6.2 Noise from the premises is to be measured or computed at any point within one metre of any affected residence to determine compliance with condition L6.1. 5dB(A) must be added if the noise is tonal or impulsive in character.

Note: For the purposes of condition L6.1 and L6.2, noise limits for the premises must be set using information provided as part of the post commissioning noise impact assessment monitoring as required by PRP U11 of this licence. Noise limits will be determined using data collected that is in accordance with the EPA’s NSW Industrial Noise Policy 2000 and account for the contribution of the Clean Fuels plant and equipment and the Flare Replacement plant and equipment.

L6.3 Noise from flaring must not exceed the $L_{Aeq,15min}$ dB(A) noise limits in the table below:

Type of flaring LAeq,15min dB(A) (Note 1)

Receiver Location (Note 1)	Normal	Smokeless	Maximum
NCA1	44	60	66
NCA2	43	61	66
NCA3	41	60	66
NCA4	44	60	66
National Park	40	57	63

Note: Note 1: Receiver locations and Types of Flaring are as described in the Renzo Tonin & Associates Pty Ltd, 16 April 2004, Environmental Noise Impact Assessment TB284-01F02 (REV 6) Flare SEE Report.

L6.4 For the receiver locations NCA1, NCA2, NCA3 and NCA4, noise from flaring is to be measured at any point on or within the residential boundary to determine compliance with the LAeq,15min noise limits presented in Condition L6.3 of this licence.

L6.5 For the National Park receiver location referred to in Condition L6.3, noise from flaring must be measured

at the most affected point within 50 metres of the National Park boundary to determine compliance with the LAeq,15min noise limit presented in Condition L6.3 of this licence.

L6.6 Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy January 2000 for general guidance on determining compliance.

L6.7 For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

L6.8 The noise emission limits identified in Condition L6.3 of this licence, apply under meteorological conditions of:

a) Wind speed up to 3 m/s at 10 metres above ground level; and
b) Temperature inversion conditions up to 3 degrees Celsius/100 metres and wind speed up to 2 m/s at 10 metres above the ground.

L7 Potentially offensive odour

L7.1 No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.

L8 Other limit conditions

L8.1 **Polychlorinated Biphenyls (PCBs)**

Note: The licensee must comply with the conditions as specified in this licence or where no specific conditions are outlined in this licence, the licensee must comply with the "Chemical Control Order in Relation to Materials and Wastes Containing Polychlorinated Biphenyl, 1997".

L8.2 **Asbestos**

Note: The licensee must comply with the conditions as specified in this licence or where no specific conditions are outlined in this licence, the licensee must comply with the Protection of the Environment Operations (Waste) Regulation 2005.

L8.3 **Sulphur Recovery Units: Plants No 54 & 58**

L8.4 The oxygen content in the flue gas of the SRU #1 Waste Gas Incinerator and SRU #2 Waste Gas Oxidiser (Points 4 and 5 respectively) must be not less than 1.0 per cent.

L8.5 The SRU # 1 Waste Gas Incinerator and the SRU #2 Waste Gas Oxidiser (Points 4 and 5 respectively) must be operated at a temperature of not less than 650 degrees Celsius when incinerating 'Acid Gas' or 'SRU Waste Gas'.

Note: 'Acid Gas' is the sour gas stream ex the Amine Regeneration process which passes from vessel 45C-850 to the SRU Back End, where it is converted to elemental sulphur in normal operation or to SRU #1 Waste Gas Incinerator (45F-453) for incineration when the SRU Back End is out of service.

Note: 'SRU Waste Gas' is the waste gas stream ex the SRU Back End which passes through vessel 45D-851X before being incinerated in SRU#2 Waste Gas Oxidiser (45F-854) in normal operation, or in SRU#1 Waste Gas Incinerator (45F-453) when 45F-854 is out of service.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
a) must be maintained in a proper and efficient condition; and
b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Emergency response

O4.1 The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times. The emergency response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. If a current emergency response plan does not exist at the date on which this condition is attached to the licence, the licensee must develop an emergency response plan within three months of that date.

O5 Processes and management

O5.1 The licensee must ensure that any liquid and/or non liquid waste generated and/or stored at the premises is assessed and classified in accordance with the DECC Waste Classification Guidelines as in force from time to time.

O5.2 The licensee must ensure that waste identified for recycling is stored separately from other waste.

O6 Other operating conditions

O6.1 **Flare operation**

O6.2 The EPA must be notified as soon as practical after the refinery standby flare is brought into service.

O6.3 The licensee must monitor the flare tip using a video recorder during all times when the sum of the volumetric flow rates measured at Point 36 and 37 is approaching, as well as during all the times of exceedance of the smokeless design threshold of 102,000 kg/h. Video recordings must be retained by the licensee for twelve months after that record was taken.

O6.4 The licensee must notify the EPA of all exceedances in the smokeless design threshold flow rate of 102,000 kg/h at Point 35.

Note: Emissions from Point 35 are the sum of the volumetric flow rates measured by continuous analysers at Point 36 and 37.

O6.5 **Effluent that may be discharged at Point 3, Tabbagai Gap**

O6.6 Effluent must only be discharged from Point 3 (Tabbagai Gap) during wet weather events or for a 24 hour period immediately after wet weather events.

O6.7 “Wet weather events” are defined as rainfall exceeding 10 millimetres in any 24 hour period as measured at the rain gauge located at the Caltex Lubricating Oil Refinery Central Control Building, labelled ‘Caltex Rain Gauge’ as shown on Drawing Number 18588 titled “Environment Protection Licence EPA Identification Points” dated 23/5/07 submitted to the EPA with letter on 15 June 2007.

O6.8 Effluent may be discharged at point 3 at any time to allow weekly tests on Caltex Lubricant Oil Refinery (CLOR) Tabbagai effluent pumps (numbers 15-G, 1A, 1B and 1C) to be conducted.

O6.9 All effluent must be treated using an oil/water separator prior to discharge at point 3 (Tabbagai Gap).

O6.10 **Use of the biotreator wastewater treatment plant bypass**

O6.11 All wastewater must be treated using the biotreator wastewater treatment plant or the oil/water separators and induced air flotation system prior to discharge at point 2 (Yena Gap).

O6.12 Wastewater that has passed through the oil/water separator can only bypass the biotreator wastewater treatment plant for treatment in the induced air flotation unit (IAF) when:

1. The influent flowrate exceeds the biotreator operational maximum treatment capacity and both the effluent diversion tank and the equalisation tank are more than 85% full, or

2. The transfer capacity of the diversion pumps and the equalisation tank feed pumps are insufficient to deal with the wastewater flow, or

3. The biotreator wastewater treatment plant is off line for essential maintenance.

4. The pump capacity of the bypass pumps (number 15G-27) is being conducted to check maximum pump capacities and equipment availability.

O6.13 Whenever wastewater bypasses the biotreator wastewater treatment plant and is discharged at point 2 (Yena Gap), the licensee must maintain the flowrate through the biotreator wastewater treatment plant at its operational maximum treatment capacity, unless the biotreator wastewater treatment plant is off-line for essential maintenance. Any reduction in the flowrate through the biotreator wastewater treatment plant from the operational maximum treatment capacity during these times must be recorded and reported to the EPA within 7 days.

Note: The biotreator bypass system is intended to act as a back-up system for the biotreator wastewater treatment plant. The biotreator bypass should only be used to treat excess wastewater resulting from stormwater falling on the premises and wastewater that can not be treated by the biotreator wastewater treatment plant due to plant maintenance or operating problems.

The intention of conditions O6.10 to O6.13 is to ensure that the biotreator wastewater treatment plant is treating wastewater at full capacity before wastewater is diverted to the supplementary wasterwater treatment system (the oil/water separators and induced air flotation system). The “nominal operational maximum treatment capacity” for the biotreator waste water treatment plant is 600kL/h. However, the “operational maximum treatment capacity” may change depending on the number of “healthy” organisms in the biotreator wastewater treatment plant, which is an activated sludge system.

5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

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M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Air Monitoring Requirements

POINT 4,5

Pollutant	Units of measure	Frequency	Sampling Method
Oxygen (O2)	percent	Continuous	CEM-3
Temperature	degrees Celsius	Continuous	In line instrumentation

POINT 6

Pollutant	Units of measure	Frequency	Sampling Method
Fine Particulates	milligrams per cubic metre	Yearly	OM-5
Hazardous substances	milligrams per cubic metre	Yearly	TM-12, TM-13 & TM-14
Opacity	percent Opacity	Continuous	CEM-1
Total Solid Particles	milligrams per cubic metre	Yearly	TM-15

POINT 7

Pollutant	Units of measure	Frequency	Sampling Method
Fine Particulates	milligrams per cubic metre	Yearly	OM-5
Hazardous substances	milligrams per cubic metre	Yearly	TM-12, TM-13 & TM-14
Moisture	percent	Continuous	TM-22
Nitrogen Oxides	milligrams per cubic metre	Continuous	CEM-2
Opacity	percent	Continuous	CEM-1
Oxygen (O2)	percent	Continuous	CEM-3
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Quarterly	TM-3
Sulphur dioxide	milligrams per cubic metre	Continuous	CEM-2
Temperature	degrees Celsius	Continuous	TM-2
Total Solid Particles	milligrams per cubic metre	Yearly	TM-15
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

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POINT 8

Pollutant	Units of measure	Frequency	Sampling Method
Hydrogen Sulfide	milligrams per cubic metre	Continuous	CEM-7
Moisture	percent	Continuous	TM-22
Oxygen (O2)	percent	Continuous	CEM-3
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Quarterly	TM-3
Sulphur dioxide	milligrams per cubic metre	Continuous	CEM-2
Temperature	degrees Celsius	Continuous	TM-2
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

POINT 29,30,31,32

Pollutant	Units of measure	Frequency	Sampling Method
Moisture	percent	Continuous	TM-22
Nitrogen Oxides	milligrams per cubic metre	Continuous	CEM-2
Opacity	percent	Continuous	CEM-1
Oxygen (O2)	percent	Continuous	CEM-3
Sulphur dioxide	milligrams per cubic metre	Continuous	CEM-2
Temperature	degrees Celsius	Continuous	TM-2
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

POINT 34

Pollutant	Units of measure	Frequency	Sampling Method
Hydrogen Sulfide	milligrams per cubic metre	Quarterly	TM-5
Moisture	percent	Continuous	TM-22
Nitrogen Oxides	milligrams per cubic metre	Continuous	CEM-2
Oxygen (O2)	percent	Continuous	CEM-3
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Quarterly	TM-3
Sulphur dioxide	milligrams per cubic metre	Continuous	CEM-2
Temperature	degrees Celsius	Continuous	TM-2
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

POINT 36,37

Pollutant	Units of measure	Frequency	Sampling Method
Volumetric flowrate	cubic metres per second	Continuous	In line instrumentation

M2.3 Water and/ or Land Monitoring Requirements

POINT 15,16

Pollutant	Units of measure	Frequency	Sampling Method
Benzene	milligrams per litre	Quarterly	Grab sample
Ethyl benzene	milligrams per litre	Quarterly	Grab sample
Lead	milligrams per litre	Quarterly	Grab sample
pH	pH	Quarterly	Grab sample
Standing Water Level	metres	Quarterly	Special Method 1
Toluene	milligrams per litre	Quarterly	Grab sample
Total petroleum hydrocarbons	milligrams per litre	Yearly	Grab sample
Total Phenolics	milligrams per litre	Quarterly	Grab sample
Xylene	milligrams per litre	Quarterly	Grab sample

POINT 26

Pollutant	Units of measure	Frequency	Sampling Method
Chlorine (free residual)	milligrams per litre	Daily	Representative sample
Temperature	degrees Celsius	Continuous	In line instrumentation

POINT 27

Pollutant	Units of measure	Frequency	Sampling Method
2,4-dimethylphenol	milligrams per litre	Monthly	24 hour composite sample
Arsenic	milligrams per litre	Monthly	24 hour composite sample
Benzene	milligrams per litre	Monthly	24 hour composite sample
Biochemical oxygen demand	milligrams per litre	Every 6 days	Grab sample
BOD (Wet)	milligrams per litre	Special Frequency 2	Grab sample
Ethyl benzene	milligrams per litre	Monthly	24 hour composite sample
Lead	milligrams per litre	Monthly	24 hour composite sample
Naphthalene	milligrams per litre	Monthly	24 hour composite sample
Nickel	milligrams per litre	Monthly	24 hour composite sample
Nitrogen (ammonia)	milligrams per litre	Every 6 days	Grab sample
Oil and Grease	milligrams per litre	Every 6 days	Grab sample
Oil and grease (Wet)	milligrams per litre	Special Frequency 2	Grab sample
pH	pH	Continuous	In line instrumentation

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Phenanthrene	milligrams per litre	Monthly	24 hour composite sample
Phenols	milligrams per litre	Every 6 days	Grab sample
Phenols (Wet)	milligrams per litre	Special Frequency 2	Grab sample
Polycyclic aromatic hydrocarbons	milligrams per litre	Monthly	24 hour composite sample
Sulfide (un-ionised hydrogen sulfide)	milligrams per litre	Every 6 days	Grab sample
Temperature	degrees Celsius	Continuous	In line instrumentation
Toluene	milligrams per litre	Monthly	24 hour composite sample
Total suspended solids	milligrams per litre	Every 6 days	Grab sample
TSS (Wet)	milligrams per litre	Special Frequency 2	Grab sample

POINT 28

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Special Frequency 1	Grab sample
Oil and Grease	milligrams per litre	Special Frequency 1	Grab sample
pH	pH	Special Frequency 1	In line instrumentation
Phenanthrene	milligrams per litre	Special Frequency 1	Grab sample
Sulfide (un-ionised hydrogen sulfide)	milligrams per litre	Special Frequency 1	Grab sample
Temperature	degrees Celsius	Special Frequency 1	In line instrumentation
Total Phenolics	milligrams per litre	Special Frequency 1	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 1	Grab sample

Note: For the purposes of opacity monitoring at Points 6 and 7 and in accordance with the Protection of the Environment Operations (Clean Air) Regulation 2002:

i) the activity or plant defined by the licence at these locations is taken to belong to Group 1 until 1 September 2015 or unless otherwise approved in writing by the EPA. The opacity monitoring requirements for the licence will be reviewed in consultation with the licensee following the completion of the additional studies and assessments specified in Special Conditions E2, E3, E4 and E5; and

ii) a site specific 24 hour rolling averaging period may be applied for reporting opacity monitoring data.

Note: For the purposes of Total Solid Particles monitoring at Points 6 and 7 and in accordance with the Protection of the Environment Operations (Clean Air) Regulation 2002, the activity or plant defined by the licence at these locations is taken to belong to Group 2 until 1 September 2015 or unless otherwise approved in writing by the EPA. The Total Solid Particles monitoring requirements for the licence will be reviewed in consultation with the licensee following the completion of the additional studies and assessments specified in Special Conditions E2, E3, E4 and E5;

Note: For the purposes of opacity monitoring at Points 29, 30, 31 and 32 and in accordance with the Protection of the Environment Operations (Clean Air) Regulation 2002, the activity or plant defined by the licence at these locations is taken to belong to Group 1 until 1 September 2015 or unless otherwise approved in writing by the EPA. The opacity monitoring requirements for the licence will be reviewed in consultation

with the licensee following the completion of the additional studies and assessments specified in Special Conditions E2, E3, E4 and E5.

Note: For the purposes of the table above for Point 28, **Special Frequency 1** means:

a) for a process effluent discharge of less than six hours, one sample collected prior to stopping the discharge;

b) for a process effluent discharge of six hours or greater, one sample collected six hours after the commencement of the discharge, followed by one sample collected every eight hours until the discharge is stopped.

The licensee must then apply an arithmetic average to all sample results recorded for each 24 hour period to calculate a daily sample result.

Note: For the purposes of the table above for Point 27, **Special Frequency 2** means daily only during any discharge under biotreater wastewater treatment plant bypass conditions as specified in condition O6.12.

Note: For the purposes of the table above for Points 15 and 16 above:

a) **Special Method 1** means recording of standing water level by measuring the depth to groundwater using an electronic dip meter with 1mm graduated tape; and

b) The Standing Water Level is to be measured in metres as the depth below the top of the monitoring well casing.

Note: For the purposes of the table above for Point 27, any monitoring requirement for phenols is to be read as total phenolics.

Note: The monitoring at Point 26 is conducted to determine compliance with concentration limits specified in condition L3.5 for discharge from Point 1.

Note: The monitoring at Point 27 is conducted to determine compliance with limits specified in condition L3.5 for discharges from Point 2.

Note: The monitoring at Point 28 is conducted to determine compliance with limits specified in L3.5 for discharges from Point 3.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

Note: **Testing methods – load limit**

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
a) the date and time of the complaint;
b) the method by which the complaint was made;
c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record must be produced to any authorised officer of the EPA who asks to see them.

M4.4 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 The preceding two conditions do not apply until 3 months after:
a) the date of the issue of this licence or
b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:
a) the volume of liquids discharged to water or applied to the area;
b) the mass of solids applied to the area;
c) the mass of pollutants emitted to the air;
at the frequency and using the method and units of measure, specified below.

POINT 27

Frequency	Unit of Measure	Sampling Method
Continuous during discharge	kilolitres per day	In line instrumentation

POINT 28

Frequency	Unit of Measure	Sampling Method
Continuous during discharge	kilolitres per day	In line instrumentation

POINT 33

Frequency	Unit of Measure	Sampling Method
Continuous	kilolitres per day	By Calculation (volume flow rate or pump capacity multiplied by operating time)

Note: The monitoring at Point 33 is conducted to determine compliance with volume limit specified in condition L4.1 for discharge to Point 1.

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
a) a Statement of Compliance; and
b) a Monitoring and Complaints Summary.
At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 Where the licensee is unable to complete a part of the Annual Return by the due date because the licensee was unable to calculate the actual load of a pollutant due to circumstances beyond the licensee's control, the licensee must notify the EPA in writing as soon as practicable, and in any event not later than the due date. The notification must specify:
a) the assessable pollutants for which the actual load could not be calculated; and
b) the relevant circumstances that were beyond the control of the licensee.

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or

b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

R4.1 **Leak Detection and Repair (LDAR) Program Annual Report**

R4.2 The licensee must prepare and submit to the EPA an Annual LDAR Program Report in accordance with the LDAR methodology submitted by Caltex in January 2009 or any revised versions. The Report must be submitted with the Annual Return and include, but need not be limited to, the following:

1. The name, location, type of components, and description of any unit where major leaking components are found;

2. The date of leak detection and emission level of leak (ppmv);

3. The date and methodology of repair of leak;

4. The date and emission level of re-check after leak was repaired;

5. The total number of components inspected, and total number and percentage of minor, major and significant leaking components found by component types; and

6. A comparison of leaking component repair response times with the following repair response times:

Component	Block Valves	Actuated Valves	Rotating Equipment (Pumps/Compressors)
Leak Category	Goal / Target	Goal / Target	Goal / Target
Significant (>=50,000 ppmv)	1 Day / 5 Days	5 Days / 30 Days	5 Days / 30 Days
Major (>=10,000 & <50,000 ppmv)	5 Days / 30 Days	10 Days / 90 Days	10 Days / 90 Days
Minor (>=1,000 & <10,000 ppmv)	10 Days / 90 Days	Exempt / Exempt	Exempt / Exempt

Note: **'Days'** refers to normal working days including Monday to Friday, not including public holidays or scheduled days off.

'Goal' refers to an "Initial Repair Attempt" as specified in "Appendix 3: Continuing LDAR Program Methodology" submitted as part of the "Leak Detection and Repair Program (LDAR) Study and Methodology Report, 20 January 2009".

'Target' refers to the "Follow-up Repair Attempt" as specified in "Appendix 3: Continuing LDAR Program Methodology" submitted as part of the "Leak Detection and Repair Program (LDAR) Study and Methodology Report, 20 January 2009".

R4.3 **Contaminated Site Risk Reduction Program Annual Review**

R4.4 PRP U14 required the preparation of a Contaminated Site Risk Reduction Plan (the Plan) for the premises to establish a program for the reduction of risk to human health or any other aspect of the environment associated with contaminated soil and/or groundwater. The Plan identified the preferred risk reduction measures and/or programs to be implemented and these were included in a two year rolling schedule of works for the premises.

The licensee must prepare and submit to the EPA an Annual Progress Report for the Plan. The report must summarise the measures and/or programs implemented over the previous 12 month period and provide a review/update of the rolling schedule of works to track completion of project milestones and to include additional risks which may be identified.

The Progress Report must be submitted to the EPA on or before the 31 December each year.

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Signage

G2.1 The location of EPA point number(s) 1,2,3,4,5,6,7,8,15,16,26,27,28,29,30,31,32,33,34,35,36,37 and 38 must be clearly marked by signs that indicate the point identification number used in this licence and be located as close as practical to the point.

G3 Other general conditions

G3.1 **Completed Pollution Studies and Reduction Programs (PRPs)**

PRP	Description	Completed Date
PRP 1: Mandatory Environmental Audit	To investigate environmental monitoring systems, identify deficiencies and recommend solutions to monitoring system deficiencies	20-October-2003
PRP 2: Noise Assessment Report	To assess the noise impact of the activities of the premises.	31-January-2004
PRP 3: CEM System Certification Testing	To ensure CEMs installed at Point 8 are accurate.	31-January-2004
PRP 4: Review of Environmental Impact of Cooling Water Discharge at Point 1	To ensure that any impacts from residual chlorine in cooling water discharge at Point 1 are minimised	19-December-2003
PRP 5: Water Quality to Stormwater	To improve the quality of stormwater discharging through the stormwater treatment system to achieve no visible oil and grease release in the waters adjacent to Gate 5 and within Quibray Bay.	30-March-2005
PRP 6: Septic Effluent Study	To reduce the environmental impacts of septic waste release from the premises to Yena Gap and Tabbigai Gap.	24-December-2004
PRP 7: Air Impact Assessment	Assess the impact of air pollutant emissions from the premises.	04-April-2005
PRP U1: Leak Detection and Repair Program (LDAR)	To minimise emissions of benzene and VOCs from process equipment within the premises. The reduction program will first focus on the significant areas of benzene emissions at the premises through a Focussed Leak Detection and Repair (FLDAR) Program and then progress to a Leak Detection and Repair (LDAR) Program to relevant process equipment across the whole of the premises.	28-January-2009
PRP U2: Interim Sulfur Dioxide (SO2) Mitigation	To develop and design sulfur dioxide (SO2) mitigation options to minimise 1-hour average ground level concentrations of SO2 under normal operating conditions using the results of year 2002 dispersion modelling completed to date.	27-June-2006

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PRP U3: Sulfur Recovery Unit (SRU) - Reliability Improvement Report and Program	To improve the reliability of the Sulfur Recovery Unit (SRU) to minimise unplanned shutdowns of the SRU Back End, which result in Acid Gas Diversion to the SRU #1 Waste Gas Incinerator (45F-453), and thus reduce ground level concentrations of sulfur dioxide (SO2).	29-November-2009
PRP U4: Ambient Sulfur Dioxide (SO2) Monitoring Stations	To determine the actual concentrations of SO2 in the Kurnell community through the establishment of ambient SO2 monitoring stations.	29-September-2007
PRP U5: Identification of Major Sources of Sulfur Dioxide (SO2)	To define and identify the major, non-major and negligible sources of SO2 at the premises.	31-May-2006
PRP U6: Sulfur Dioxide (SO2) Emissions Inventory	To quantify the major, non major and negligible sources of SO2 from the premises.	31-January-2008
PRP U7: Sulfur Dioxide (SO2) Impact Assessment and Risk Assessment	To undertake an air quality impact assessment to ensure that the premises can comply with the EPA's SO2 impact assessment criteria and to characterise SO2 emissions from all sources using risk analysis.	30-May-2008
PRP U8: Sulfur Dioxide (SO2) Mitigation	To identify the most cost-effective mitigation measures that will ensure compliance with the EPA's sulfur dioxide (SO2) health based impact assessment criteria under all operating and meteorological conditions and to develop site specific SO2 emission limits for Points 7 and 8 and all other all major sources at the premises.	28-November-2008
PRP U9: Common Stack (45F-10) H2S Emissions Study	To investigate the emissions of hydrogen sulfide (H2S) from the common stack (45F-10) under acid gas diversion for the current operation of the refinery and with the Clean Fuels Project implemented and compare the emissions with the requirements of the POEO (Clean Air) Regulation 2002.	06-October-2007
PRP U10: Validation of Boiler Performance and Oxides of Nitrogen (NOx) Emission Limits Study	To establish individual oxides of nitrogen emission limits for discharge points 29,30,31 and 32 to replace the existing average emission concentration limit. The emission limits will reflect the operation and maintenance of the boilers in a proper and efficient manner, and ensure compliance with the EPA's health based impact assessment criteria for nitrogen dioxide.	30-May-2008
PRP U11: Noise Impact Assessment	To assess the impact of noise from the refinery including the operation of Clean Fuels Plant.	15-August-2006
PRP U12: Solid Particles and Hazardous Substances Impact Assessment	to undertake an air quality impact assessment to ensure the premises can comply with the EPA's environmental outcomes for solid particles and hazardous substances	01-June-2008

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PRP U13: Contaminated Sites Assessment, Classification and Risk Ranking Requirement.	To develop upon existing contaminated site management practice and to develop and implement a comprehensive risk reduction program comprised of: - a preliminary soil and groundwater contamination risk reduction plan - a comprehensive contaminated site assessment and risk ranking - a stakeholder consultation plan - procedures for on-going management of contaminated site risk, and - an on-going review, update and implementation of a soil and groundwater monitoring plan	04-June-2007
PRP U14: Contaminated Sites Risk Reduction Program	To establish a program for reduction of risk to human health or any other aspect of the environment associated with contaminated soil and/or groundwater. Risk reduction measures may include preventing further contamination from sources identified in Condition U13 of this licence, by installing long term contamination controls, and minimising the human and environmental impact existing contamination by undertaking site remediation works.	10-December-2007

Completed Special Conditions

Special Condition	Description	Completed Date
SC E2: Investigations to Reduce Soot Blowing Activities & Associated Air Emissions	To review the current soot blowing activities for the two FCCUs and investigate options to: a) reduce the need for soot blowing b) reduce particulate emissions associated with soot blowing, and c) comply with CAR Group 5 standards.	31 August 2011
SC E3: Feasibility Study for Particle Monitoring	To investigate the feasibility of replacing continuous opacity monitoring with continuous TSP and PM10 emission monitoring for both FCCUs and the four Powerplant Boilers and to identify a preferred option for implementation.	14 December 2011
SC E4: Air Quality Impact Assessment	To demonstrate that current operations at the premises can continue to achieve acceptable environmental outcomes for solid particles (PM10 and TSP) and hazardous substances.	Due date: 13 December 2013
SC E5: Cost Benefit Analysis for Upgrading Plant and Equipment to Meet Group 5 Standards	To undertake a cost benefit analysis for upgrading the two Fluidised Catalytic Cracking Units and four power plant Boilers to meet Group 5 standards and emission standards consistent with best available techniques (BAT).	Due date: 13 June 2014

SC E6: Vegetation Monitoring Program	To engage a suitably qualified ecological practitioner and developed a Vegetation Monitoring Program (VMP) to monitor any potential impacts on the Towra Point Nature Reserve as well as the adjacent Towra Point Aquatic Reserve over a 12 month period following the discharge of oily waters from the premises in June 2010.	31 August 2011
SC E7: Mandatory Environmental Audit	To undertake an independent environmental audit of the systems and procedures in place for the importation of "primary imported products" to the site. To identify any deficiencies and recommend improvements to ensure that any activities associated with the importation of primary imported products can reliably and robustly comply with Section 129 of the POEO Act at all times. The audit is in response to the odour incident which occurred between April and June 2010.	Due date: 28 September 2012

8 Pollution Studies and Reduction Programs

U1 PRP U15: Odour Reduction Program

Note: Odours are a key issue of community complaint and the licensee has had an ongoing program to reduce offensive odours from the premises. The licensee developed a capital program in 2005 to address known sources of odour at the premises.

Objective

The objective of this program is to continue to implement odour mitigation measures to prevent the emission of any offensive odours from the premises.

U1.1 **PRP U15.1: Implementation of Odour Mitigation Works**

The licensee must complete the following program of remaining works developed as part of the 2005 odour mitigation measures:

• Wastewater treatment plant G14's pit and pump replacement on or before 15 December 2010

• Wastewater treatment plant separator bay covers and vapour treatment system on or before 15 December 2011

U1.2 **PRP U15.2: Odour Assessment Methodology**

The licensee must prepare and submit to the EPA an Odour Assessment Methodology with the aim of identifying and managing sources of offensive odour from the premises. The methodology must include, but need not be limited to the following:

a) Identification of both point and diffuse odour sources which may have off-site impact

b) Development of odour performance criteria to define these odour sources

c) Identification of an appropriate monitoring and reporting program to quantify odour sources.

d) A methodology to quantitatively assess the effectiveness of odour mitigation measures, and

e) A process to rank and prioritise odour sources based on their odour type, strength, frequency of occurrence, proximity to neighbouring properties and the practicability of mitigation measures to prevent the odours with potential off-site impact.

Completion Date: 30 March 2012

The methodology must be developed and agreed in consultation with the EPA and take into account the following:
(i) NSW DEC, 2005a, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW;
(ii) NSW DEC, 2005b, Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW;
(iii) NSW EPA, 2001a, Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW; and
(iv) NSW EPA, 2001b, Technical Notes - Draft Policy: Assessment and Management of Odour from Stationary Sources in NSW.

U1.3 **PRP U15.3: Odour Assessment and Reduction Program**
Following the completion of remaining odour mitigation works (PRP U15.1) the licensee must undertake an odour assessment of the premises and develop an odour reduction program to further prevent the emission of any offensive odours from the premises. The assessment must be developed in consultation with the EPA and undertaken in accordance with the agreed methodology as provided in PRP U15.2 unless otherwise agreed in writing by the EPA. It must include, but need not be limited to:

a) Identification of the key odour controls and activities implemented by the licensee since 2005,

b) A review of the success of these odour reduction measures

c) Identification of the remaining or new odour sources at the premises with potential off site impact including both point and diffuse sources.

d) Characterisation of each identified odour source in terms of its offensive nature and whether it is likely to result in an impact beyond the boundary of the premises

e) A review of technically reasonable and feasible odour reduction measures for management of all odour sources with offsite impacts including estimated costs and predicted odour reduction potential for each option.

f) Prioritisation of each of these odour sources taking into account identified management options and their effectiveness of reducing odour emissions;

g) A program of works for the implementation of the prioritised odour management options.

h) Justification for the program of works including the estimated cost, predicted odour reduction, and the timetable for implementation.

i) A monitoring and reporting program to assess the performance of each reduction measure against agreed odour performance criteria

j) A process for regularly reviewing the effectiveness of the odour management program.

k) A process for regularly reporting on the progress of the program.

Completion Dates:
1. A report including the odour assessment, review and prioritisation of the identified odour sources (Parts (a) to (f) above) must be prepared and submitted to the EPA on or before **30 March 2013.**

2. A report including the planned program of works, estimated costs as well as monitoring, reporting and review processes (Parts (g) to (k) above) must be prepared and submitted to the EPA on or before **30 March 2014**

U2 PRP U16: VOC Emissions from Petroleum Storages

Note: Following implementation of a Leak Detection and Repair (LDAR) program, the Refinery has demonstrated a significant reduction in Benzene and VOC fugitive emissions. The USEPA TANKS program has shown that there may be opportunity to further reduce Benzene and VOC emissions from the storage of petroleum products through the application of sleeves on slotted guidepoles on storage tanks.

Objective
The objective of this program is to assess the effectiveness of sleeves on slotted guidepoles in reducing reported benzene and VOC emissions from storage tanks.

U2.1 **PRP U16.1: Trial Tank Sleeve Program**
The licensee must prepare and submit a report to EPA outlining a trial program for the installation of sleeves on slotted guidepoles on a representative petroleum storage tank. The report must be prepared in consultation with and agreed to by the EPA. It must include, but need not be limited to identification of and justification for the storage tank to be used for the trial and timing of the installation. This may include taking into account factors such as throughput, volume, access and maintenance issues.

Completion Date: 30 September 2012

U2.2 **PRP U16.2: Implementation of the Tank Sleeve Program**
The licensee must complete the tank sleeve program trial in accordance with the agreed methodology developed in PRP U16.1 unless otherwise agreed in writing by the EPA. A report must be prepared and submitted to the EPA which includes but need not be limited to:

a) an assessment of the effectiveness of the trial, including reporting on:
- the reductions in reported Benzene and VOC emissions by modelling using USEPA TANKS program, before and after the installation of the sleeves;
- the reduction in annual load fees for Benzene and VOCs (including Summer VOCs);
- the costs per tank for installation and ongoing maintenance;

b) identification of the number of remaining tanks at the Refinery to which the sleeves could be installed;

c) an estimation of the predicted reductions in Benzene and VOC emissions that may be gained through completing the installation on the remaining tanks; and

d) based on the assessment of effectiveness, required in (a) above, provide recommendations for a future program of works for completing the installation of tank sleeves on guidepoles on the remaining storage tanks.

Completion Date: 30 November 2015

U3 PRP U17: Noise Impact Assessment and Mitigation

Note: In 2006 the licensee submitted a Noise Impact Assessment and mitigation program to the EPA in accordance with PRP U11. These reports were developed on the basis of modelling using the Environmental Noise Model (ENM). In 2007 the licensee undertook detailed noise modelling of process plant equipment utilising another noise modelling tool, SoundPlan. The SoundPlan modelling facilitated the development of a practical and feasible noise mitigation program addressing major noise sources at the premises. The licensee has commenced implementation of the Noise Mitigation Program which aimed to achieve a 10 dB(A) reduction over 10 years.

Objective
The objective of this program is to continue to implement noise mitigation measures to achieve an agreed level of noise reduction across the plant.

U3.1 **PRP U17.1: Noise Model Assessment and Selection**
The licensee must prepare and submit a report to the EPA which includes but need not be limited to:
a) identification of the preferred noise model for the premises
b) details of the 2006 Noise Mitigation Program (both completed and remaining works)
c) the proposed noise reduction objective for the premises, and
d) a methodology to assess the effectiveness of noise mitigation measures.

Completion Date: 30 September 2011

U3.2 **PRP U17.2: Implementation of Noise Mitigation Program**
The licensee must complete the following program of remaining works developed as part of the 2006 noise mitigation program. Broadly this is outlined as:
• Group 3 works – Completion planned for the next scheduled Plant 34 T&I (Apr 2011)
• Group 4 works – Completion planned for the next scheduled Plant 4 T&I (Jun 2013)
• Group 5 works – Completion at the scheduled CLOR & PDU closure (May 2012)

Completion Date: 15 December 2013

U3.3 **PRP U17.3: Noise Assessment Program**
The licensee must develop a Noise Impact Assessment Report in consultation with the EPA to evaluate the noise mitigation measures installed and to assess other significant noise sources at the premises. The report must be developed in accordance with the NSW Industrial Noise Policy and include, but need not be limited to:

a) The key noise mitigation measures implemented by the licensee,

b) An assessment of the noise reductions achieved for each key mitigation measure with a comparison against the noise reduction objective for the premises as defined in PRP U17.1,

c) An assessment of the overall noise reduction achieved for the premises with a comparison against the Licence limits as detailed in Condition L6.

d) An inventory of noise sources on the premises that contribute to noise at affected receptor locations.

e) A description of the preferred noise mitigation measures that are proposed for implementation to prevent, control or minimise noise emissions from the premises impacting on residential and/or industrial receptors and to comply with the Industrial Noise Policy.

f) A preliminary assessment of the likely reduction in noise emissions resulting from implementation of the preferred noise mitigation measures.

g) A preliminary estimate of the cost and timetable to implement the licensee's preferred options.

Completion Date:
A report must be prepared and submitted to the EPA on or before **15 December 2014.**

U4 PRP U18: Threatened Species Management Plan

Note: Caltex has undertaken survey work in 2006 and 2007 and although no rare or endangered flora or fauna has been found on the site, these studies have identified Endangered Ecological Communities (EEC)/threatened species habitat. There is the potential for refinery operations to impact on threatened species, populations and EECs.

Objective
The objective of this program is:
1) to assess the risk of harm to threatened species, populations and EECs from actual or potential pollution from the premises; and
2) to identify management options to minimise any potential harm.

U4.1 **PRP U18.1: Threatened Species Management Plan**
The licensee must prepare and submit to the EPA a Threatened Species Management Plan. The plan must identify appropriate management options to minimise potential impacts from refinery operations on threatened species, populations and EECs that may exist on land occupied by the licensee.

The Plan must be developed by the licensee in consultation with the EPA and a suitably qualified ecologist. It must include but need not be limited to:

a) Identification of any threatened species, population or EECs on the premises using available flora and fauna surveys, online databases and literature reviews;

b) Identification of any actual or potential threats from pollution from the premises on threatened species, populations or EECs;

c) Identification of appropriate management strategies to prevent or minimise identified threats;

d) Recommend a proposed timetable for implementation of management strategies identified in part (c); and

e) A methodology on how the licensee will monitor and report on the effectiveness of the management strategies implemented. This may include identifying the need for any future flora and fauna surveys that may be required to target specific threatened species, population or EECs.

Completion Date: 15 December 2014

U4.2 **PRP U18.2: Implement Threatened Species Management Strategies**
The licensee must implement the Threatened Species Management Strategies identified in PRP U18.1 unless otherwise agreed in writing by the EPA.

Completion Date: 15 December 2015

U5 PRP U19: Wastewater Survey - Yena Gap Discharge

Note: **Objective**
The objective of this program is to characterise the wastewater being discharged to Yena Gap and to assess the environmental risks.

U5.1 **PRP U19.1: Wastewater Survey & Risk Assessment Methodology**
The licensee must prepare and submit to the EPA a Wastewater Survey & Risk Assessment Methodology report. The report must be developed in consultation with the EPA and include but need not be limited to:

a) methodology for identifying the presence and concentration of all pollutants likely to be present in the discharge,

b) methodology for determining any environmental risk(s) associated with all identified pollutants above the limit of detection in the effluent,

c) a recommended timetable for the completion of the Wastewater Survey and Risk Assessment.

Completion Date: 30 April 2013

U5.2 **PRP U19.2: Wastewater Survey & Risk Assessment Report**
The licensee must undertake the Wastewater Survey and Risk Assessment in accordance with the agreed methodology as developed in PRP U19.1 unless otherwise agreed in writing by the EPA. A report must be prepared and submitted to the EPA detailing the results of the survey.

Completion Date: 15 December 2013

Note: The licence may be varied following the outcomes of this report in consultation with the licensee.

U6 PRP U20: Soil/Groundwater Risk Reduction Program

Note: A soil and groundwater contamination risk assessment and Groundwater Monitoring Plan for the site was provided to the EPA in 2007 in accordance with PRPs U13 and U14 of the licence. As part of this assessment, Caltex established twenty two contamination management zones (Zones A to Zone V) for which contamination management procedures were developed to reduce the risks to an acceptable level,

and a plan for groundwater monitoring. Four zones (Zone A, Zone F, Zone I and Zone O,) were identified as risk zones where detailed ongoing management was required to reduce the risk to an acceptable level.

Objective
The objective of this program is to review and update the soil and groundwater contamination risk assessment and Groundwater Monitoring Plan developed in accordance with the Contaminated Sites Risk Reduction Program.

U6.1 **PRP U20.1: Revised Risk Assessment and groundwater management plan**
a) The licensee must undertake a comprehensive review of the PRP U13.2 Contaminated Site Risk Assessment and Groundwater Monitoring Plan for the premises site by 31 December 2015. An updated risk assessment report must be prepared and submitted to the EPA which summarises the main changes to the previous report as well as highlighting any changes in the assessed risk at the site.

b) The licensee must implement the risk management strategies unless otherwise agreed in writing by the EPA.

Completion Date: 15 December 2015

Note: The licence may be varied in consultation with the licensee should any additional risks be identified through this review process.

U7 PRP U21: Landfarm Management Plan

Note: The current landfarm facility at the premises has been operational since 1996. It was designed to hold and bio-remediate the oily wastes/sludges generated from the refinery processing units.

Objective
The objective of this program is to evaluate alternative options for the sustainable management of oily wastes/sludges that will facilitate Caltex to cease landfarming at the premises.

U7.1 **PRP U21.1: Landfarm management plan**
The licensee must prepare and submit to EPA a Landfarm Management Plan which must include but need not be limited to:

a) A review of technically feasible and practical short term management options (including a review of costs) for minimising the quantity of oily wastes/sludges currently placed in the landfarm

b) A review of technically feasible and practicable long term management options (including a review of costs) to cease the landfarming of oily wastes/sludges at the premises

c) An analysis of both the short and long term options for achieving sustainable management of oily wastes/sludges. The analysis must include a recommendation for the closure of the land farm, a timetable for closure of the landfarm, and a strategy for the long term management of oily wastes/sludges.

d) A risk assessment and development of an appropriate remediation plan for the landfarm. This is to be developed in accordance with the site's Contaminated Sites Risk Assessment and Reduction Plan (PRPs U13 and U14 submitted to the DECC in 2007).

Completion Date: 30 November 2012

U7.2 **PRP U21.2: Implementation of preferred options**
The licensee must organise a meeting with DECCW to discuss the Landfarm Management Plan Report and options for the sustainable management of oily wastes/sludges that will facilitate Caltex to cease landfarming at the premises.

Completion Date: 28 February 2013

Note: The licence may be varied in consultation with the licensee following the outcomes of the above report and meeting.

U8 PRP U22: Major Oil Spill Clean Up Contingency Plan

Note: Caltex could be asked or required to assist in the clean-up of a major oil spill event eg. in Botany Bay. Unless defined by this Licence, Caltex can only accept or hold wastes generated by the Refinery's activities for storage, non-thermal treatment, processing, reprocessing or disposal.

Objective
The objective of this program is to develop a contingency plan for the management and interim storage of oily and/or various other waste streams in the event of a major spill incident occurring outside of the Kurnell Refinery.

U8.1 **PRP U22.1: Major Oil Spill Clean Up Contingency Plan**
The licensee must prepare and submit to the EPA a major oil spill clean up contingency plan. The plan must include but need not be limited to:

a) Identification of the likely spill scenario(s), types of waste streams and potential quantities;

b) Identification of suitable location(s) on the premises for the interim storage of the identified waste streams;

c) An assessment of the technical feasibility to process and/or treat the identified waste streams at the premises;

d) Identification of any relevant statutory requirements for accepting the waste streams on to the premises;

e) Development of appropriate response guidelines which can be used to facilitate a response to a major spill to ensure preparedness to such an event. The plan should take into consideration the Australian Maritime Safety Authority (AMSA) National Plan will defines a major spill as being either a Tier 2 (10 to 1,000 tonnes) or a Tier 3 (over 1,000 tonnes).

The plan must be developed in consultation with the EPA and must take into account the Oil Spill Response Manual for the premises.

Completion Date: 30 March 2015

U9 PRP U23: Integrated Waste Management Strategy

Note: **Objective**
The objective of this program is to develop and implement a waste management strategy to track and manage all waste materials generated and stored at the premises. This Pollution Reduction Program is closely linked to PRP U21 “Landfarm Management Plan”.

U9.1 **PRP U23.1: Integrated Waste Management Strategy**
The licensee must prepare and submit to the EPA an Integrated Waste Management Strategy which outlines procedures for the management and tracking of waste for the premises. The strategy must include but is not necessarily limited to:

a) An assessment of the existing waste storage locations on the premises and their suitability to contain the specific wastes. Where necessary, measures to improve the onsite storage of any existing wastes must be identified and implemented.

b) A system for tracking wastes received at the premises from onsite. This must include the type, quantity, origin and storage locations for the waste.

c) A system for tracking waste received at the premises from offsite. This must include the type, quantity, origin and storage locations for the waste.

d) Contingency procedures for managing wastes not permitted to be received at the premises.

e) Management procedures for the handling, storage, non-thermal treatment, processing and disposal of permitted wastes in an environmentally acceptable and lawful manner.

f) Details of cleaner production and waste minimisation initiatives that can be or are being implemented at the site.

g) A process and timetable for the regular review of the Integrated Waste Management Strategy.

The strategy must be developed in consultation with the EPA and all wastes managed by the licensee must be classified in accordance with DECCW’s Waste Classification Guidelines 2009.

Completion Date: 14 December 2012

Note: The licence may be varied following the outcomes of this report in consultation with the licensee.

U10 PRP U24: Stormwater Catchment & Management Program

Note: On three separate occasions in June 2010, March 2011 and April 2011 oily waters were discharged from the licensee’s premises to the waters of Botany Bay and Towra Point Nature Reserve. The incidents occurred during periods of heavy rain in the Kurnell area. The Kurnell area often experiences high rainfall events.

Objective

The objective of this program is to prevent the discharge of contaminated waters from the premises at all times.

U10.1 **PRP U24.1: Stormwater Management Plan**

The licensee must prepare and submit to the EPA a Stormwater Management Plan. The Plan must assess the adequacy of the existing stormwater and waste water collection systems to meet the above objective. The plan must also identify appropriate management strategies where necessary to:

1. minimise flooding at the site by diverting clean stormwater generated off-site away from the premises;

2. prevent contaminated waters collected within the premises from entering the clean water systems (for example, stormwater or cooling water systems); and

3. segregate and reduce the inflow of clean stormwater collected within the premises from entering the Waste Water Treatment System.

The Plan must be developed by the licensee in consultation with the EPA and a suitably qualified consultant. The Plan must include a proposed timeframe for the implementation of the identified management strategies.

Note: In developing the Stormwater Management Plan for the site, the licensee should consult the previous study completed for the site in March 1992 titled: “Caltex Refining Company Pty Ltd – CRL/ALOR Stormwater Management Study – Draft Report” prepared by Gutteridge Haskins & Davey Pty Ltd.

Completion Date: 5 October 2012

Note: The completion date may be reviewed in consultation with the EPA pending the availability and appointment of the approved Environmental Auditor required as part of the Mandatory Environment Audit.

U10.2 **PRP U24.2: Implement Stormwater Management Plan**

The licensee must implement the Stormwater Management Strategies as identified in U24.1 above unless otherwise agreed in writing by the EPA.

9 Special Conditions

E1 SC E1: Background to Special Conditions

Note: On 21 July 2010 the EPA approved an application for the extension of the Protection of the Environment Operations (POEO) (Clean Air) Regulation Group 1 Opacity limits. As part of this approval the licensee agreed to complete the works listed below in Special Conditions E2 to E5.

E2 SC E2: Investigations to Reduce Soot Blowing Activities & Associated Air Emissions

E2.1 **SC E2.1: Background**

The licensee periodically blows steam and sand through its Fluidised Catalytic Cracking Units (FCCUs) to remove built up catalyst and soot. During this procedure, particulate emissions are elevated and fallout of particulate matter may result. The current use of sand and steam can also influence the monitoring results recorded by the opacity continuous emission monitoring system.

Objective
The objective of this condition is to review the current soot blowing activities for the two FCCUs and investigate options to:
a) reduce the need for soot blowing
b) reduce particulate emissions associated with soot blowing, and
c) comply with CAR Group 5 standards.

E2.2 **SC E2.2: Investigations to Reduce Soot Blowing Activities and Air Emissions Associated with Soot Blowing**

The licensee must investigate and submit a report to the EPA which:
a) Identifies the main causes of elevated opacity readings during soot blowing activities
b) Provides an assessment of best management techniques for FCCU soot blowing for Australian and International operations
c) Evaluates / considers options to minimise particulate building up in pipes and reduce the frequency of soot blowing
d) Evaluates the use of other soot blowing media; and
e) Considers other options to achieve objectives (a) to (c) listed above.

Completion Date: 31 August 2011

E3 SC E3: Feasibility Study for Particle Monitoring

E3.1 **SC E3.1: Background**
The licensee presently monitors opacity, total solid particles (TSP) and fine particulate (PM10) emissions. The measurement of TSP and PM10 directly can provide a more accurate indication of particulate emissions from the premises.

Objective
The objective is to investigate the feasibility of replacing continuous opacity monitoring with continuous TSP and PM10 emission monitoring for both FCCUs and the four Powerplant Boilers and to identify a preferred option for implementation.

E3.2 **SC E3.2: Feasibility Study for Particle Monitoring**

The licensee must submit a report to the EPA which:

a) Evaluates the benefits and constraints of a range of Continuous Emissions Monitoring Systems (CEMS) for TSP and PM10 applicable to the intended purpose. This evaluation must include, but may not be limited to, cost, technical constraints, reliability, availability and applicability; and

b) Identifies and provides justification for a preferred particulate CEMS.

Note: Following the submission of the results of the Feasibility Study and identification of a preferred

particulate CEMS system, the licensee must organise a meeting with EPA within three months to discuss the feasibility and practicality of implementing the identified option.

Additional components may be added to this condition following this meeting including implementation timeframe(s) and location(s).

Note: The preferred system must meet all the requirements of the Approved Methods for Sampling and Analysis of Air Pollutants in NSW.

Completion Date: 14 December 2011

E4 SC E4: Air Quality Impact Assessment

E4.1 SC E4.1: Background

In 2008 the licensee completed an Air Quality Impact Assessment (AQIA) for solid particles and hazardous substances which demonstrated compliance with EPA's Assessment Criteria. The AQIA is a requirement to support an application under Section 23 of the POEO (Clean Air) Regulation for the variation of the conditions of a licence for any activity, plant or emission unit for the purpose of continuing Group 1 emission standards.

Objective

The objective of this condition is to demonstrate that current operations at the premises can continue to achieve acceptable environmental outcomes for solid particles (PM10 and TSP) and hazardous substances.

E4.2 SC E4.2: Air Quality Impact Assessment Methodology

The licensee must review and update where necessary the impact assessment methodology developed for the 2008 study. The methodology must be submitted to EPA for approval and incorporate any improvements/alterations highlighted by the previous study. The AQIA methodology must include but need not be limited to:

a) an emissions inventory which includes:

(i) a review of process conditions to identify main sources of solid particles and hazardous substances at the premises

(ii) a literature review identifying appropriate emission factors; and

(iii) proposed stack sampling and analysis in accordance with the NSW EPA, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.

b) an appropriate typical meteorological dataset including justification of why it is representative of current meteorological conditions in the Kurnell region;

c) details of the proposed dispersion model;

d) details of the model set-up to ensure the meteorology of the Kurnell Region and dispersion of air pollution from the Caltex Refinery is adequately represented; and

e) calculations demonstrating how stack particulate emission limits can be developed for Environment Protection Licence (EPL) points 6 and 7 from the relevant ground level concentration criteria and the modelling methodology.

Note: All dispersion modelling must be undertaken strictly in accordance with the methodologies set out in the Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in NSW.

Completion Date: 16 November 2012

E4.3 **SC E4.3: Air Quality Impact Assessment Modelling**

From the date of approval of the modelling methodology, the licensee must submit to the EPA an AQIA report conducted in accordance with the approved methodology. The report must include proposed TSP / PM10 stack emission limits for EPL points 6 and 7.

Completion Date: 13 December 2013

E5 SC E5: Cost Benefit Analysis for Upgrading Plant and Equipment to Meet Group 5 Standards

E5.1 **SC E5.1: Background**

The licensee has advised the EPA that based on historical monitoring data and current licence conditions the two Fluidised Catalytic Cracking Units (EPL points 6 and 7) and four power plant boilers (EPL points 29 – 32) do not meet Group 5 standards as listed in the POEO (Clean Air) Regulation 2002. The POEO (Clean Air) Regulation requires plant and equipment to comply with Group 5 emission standards as of 1 January 2012 unless otherwise agreed by the EPA.

Objective

The objective is to undertake a cost benefit analysis for upgrading the two Fluidised Catalytic Cracking Units and four power plant Boilers to meet Group 5 standards and emission standards consistent with best available techniques (BAT).

E5.2 **SC E5.2: Cost Benefit Analysis for Upgrading Plant and Equipment to meet Group 5 Standards**

The licensee must submit a written report to the EPA that investigates the mitigation options (management techniques and equipment) to achieve the Group 5 and BAT emission standards.

The report must:

a) Review BAT for power plant boilers and FCCU in Australia and overseas and report on the operating technology, pollution controls and air emission standards achieved;

b) Identifies preferred mitigation options to achieve:
(i) Group 5 emission standards; and
(ii) emission standards consistent with BAT.

c) Includes a cost/ benefit analysis of the preferred options identified in (b)(i) and (b)(ii).

Completion Date: 13 June 2014

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E6 SC E7: Mandatory Environmental Audit

E6.1 The Licensee must engage an environmental auditor approved in writing by the EPA to undertake a mandatory environmental audit ("the Audit") in relation to the premises and the activities carried on at the premises. The Audit must:

a) Examine the systems and procedures the Licensee has in place to ensure that any activities associated with "primary imported products" can reliably and robustly comply with Section 129 of the POEO Act at all times.

b) Examine the suitability of the licensee's existing "storage tanks" to ensure that they can comply with Section 129 of the POEO Act at all times when storing or handling "primary imported products".

c) Identify any deficiencies in the systems and procedures referred to above at (a) and (b), which could have lead to the odour incident which occurred between April and June 2010.

d) Recommend improvements, so far as is reasonably practicable, to the systems referred to above at (a) and (b), to prevent a future recurrence of the incident described in the Background to this Notice ("the incident") and to ensure that the licensee complies with Section 129 of the POEO Act at all times.

E6.2 By 14 October 2011 the licensee must inform the EPA of the details of at least three environmental auditors that the licensee considers are suitably qualified to undertake the Audit required under condition E6.1. Each auditor's details are to include but are not limited by the following:
a) contact details
b) relevant qualifications;
c) relevant experience: and
d) availability.

The licensee may identify a preferred auditor or a combination of auditors to undertake the Audit. However, the EPA may approve one or more of the auditors that it considers are suitable qualified to undertake the Audit.

E6.3 In accordance with the purpose of the Audit as specified in condition E6.1, the Audit must examine, but not be limited to the following:

a) The investigations undertaken by the licensee into the incident and the recommendations made and actions implemented or proposed to be implemented by the company to prevent a recurrence of the incident. This must include an assessment of the proposed actions identified by the licensee in Section (w) of the licensee's document titled "Notice to Provide Information and Records Number 1114520" dated 23 July 2010.

b) The adequacy of the procedures, systems and control measures the licensee has currently in place to:
(i) import "primary imported products" to the premises in a manner that ensures compliance with Section 129 of the POEO Act.

(ii) prevent the receipt of "primary imported products" on to the premises that have the potential to generate the emission of offensive odours, and

(iii) manage “primary imported products” delivered to the premises in a manner that ensures compliance with Section 129 of the POEO Act.

c) The adequacy of the sampling and testing procedures to detect, identify, report and manage any abnormal deviations in the quality of any “primary imported products” which may result in the emission of offensive odours prior to receipt of the product at the premises.

d) The adequacy of staff training provided to detect, identify, report and manage any abnormal deviations in the quality of any “primary imported products” which may result in the emission of offensive odours prior to receipt of the product at the premises.

e) The suitability of the licensee’s existing “storage tanks” to comply with Section 129 of the POEO Act at all times when storing any “primary imported products”.

f) Identification of measures, so far as reasonably practicable that could be implemented and/or installed to ensure compliance with Section 129 of the POEO Act from the storage and handling of “primary imported products”. This must include an appropriate timeframe for their implementation.

g) The adequacy of the licensee’s risk assessment methodologies for the identification, handling and transfer of “primary imported products” to and from the premises that have the potential to generate the emission of offensive odours from the premises.

h) An analysis of the lines of responsibility for ensuring that any “primary imported products” delivered to the site is adequately tested and approved prior to it being accepted on to the premises.

For each of the points above, as applicable, the auditor should examine the documented procedures and check that these procedures have been implemented. If it is found that particular procedures have not been implemented the auditor should comment on why this has occurred.

For each of the points above, the analysis undertaken by the auditor should not only examine current practices but also identify any deficiencies in current practices and make recommendations for the future so as far as is reasonably practicable, in accordance with the purpose of the Audit as specified in condition E6.1.

E6.4 By 28 September 2012, the Licensee must submit to the EPA’s Manager Illawarra a draft Audit Report, being a report prepared by the auditor covering all of the matters described in conditions E6.1 and E6.3. The submission date for this report was determined upon completion of E6.2 and confirmation of the Auditor’s availability.

E6.5 The licensee must submit to the EPA’s Manager Illawarra the final Audit Report by no later than one calendar month after receipt of the EPA’s comments on the draft Audit Report.

Together with the final Audit Report the licensee must also submit a summary of the Audit including any conclusions and recommendations in electronic format, so it can be entered into the Public Register (as required by section 308 of the POEO Act).

Note: 1) The audit methodology must be in accordance with ISO 14000 and the EPA Compliance Audit Handbook.

2) Section 176 of the POEO Act provides that the audit report will not be taken to have been produced to

the EPA unless it is accompanied by:

a) a declaration signed by the holder of the licence certifying that the holder has not knowingly provided any false or misleading information to the environmental auditor and has provided all relevant information to the auditor; and

b) a declaration signed by the environmental auditor:
(i) setting out the auditor's qualifications,

(ii) certifying that the report is accurate, and that the auditor has not knowingly included any false or misleading information in it or failed to include any relevant information in it, and

(iii) identify any potential conflict of interest or risk of conflict of interest.

E6.6 **Implementation of Recommendations of Mandatory Environmental Audit**

The Licensee must submit to the EPA's Manager Illawarra an Audit Implementation Report by no later than three calendar months after receipt of the EPA's comments on the final Audit Report.

E6.7 The Audit Implementation Report must:
a) identify what actions the licensee proposes to take in response to the Audit Report;
b) propose a timeframe for these action(s); and
c) an explanation for the licensee's proposals where there is any variance from those of the auditor.

Note: **Definitions**

For the purpose of the audit the following definitions are used:

Storage Tanks: Fixed cone roof tanks that vent to atmosphere and receive "primary imported products". This definition excludes floating roof tanks and fixed roof tanks with internal floating pans.

The following tanks are included for the purposes of the audit:
TK124 TK125 TK126 TK128 TK134
TK138 TK145 TK148 TK158 TK202
TK203 TK214 TK215 TK327 TK328
TK330 TK404 TK405 TK407 TK411
TK412 TK413 TK502 TK512.

Primary Imported Products: Products sourced from overseas or locally that enter the refinery via the wharf and that are pump directly into storage tanks

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environmen t Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 mo nths. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

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TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste

Mr Niall Johnston

Environment Protection Authority

(By Delegation)

Date of this edition: 30-November-2000

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End Notes

1	Licence varied by notice 1003972, issued on 21-Feb-2001, which came into effect on 23-Feb-2001.
2	Licence varied by notice 1006939, issued on 04-May-2001, which came into effect on 29-May-2001.
3	Licence varied by change of LGA to Sutherland, issued on 02-Aug-2001, which came into effect on 02-Aug-2001.
4	Licence varied by notice 1012295, issued on 16-May-2002, which came into effect on 10-Jun-2002.
5	Licence varied by Admin corrections to archived record, issued on 02-Dec-2002, which came into effect on 02-Dec-2002.
6	Licence varied by notice 1023716, issued on 24-Mar-2003, which came into effect on 18-Apr-2003.
7	Licence varied by notice 1026788, issued on 24-Nov-2003, which came into effect on 19-Dec-2003.
8	Licence varied by notice 1050241, issued on 22-Sep-2005, which came into effect on 22-Sep-2005.
9	Licence varied by notice 1054156, issued on 30-Mar-2006, which came into effect on 24-Apr-2006.
10	Licence transferred through application 143874, approved on 01-May-2006, which came into effect on 02-May-2005.
11	Licence varied by notice 1060525, issued on 25-May-2006, which came into effect on 25-May-2006.
12	Licence varied by updating references to the Clean Air Reg, issued on 25-Jul-2006, which came into effect on 25-Jul-2006.
13	Licence varied by notice 1064972, issued on 07-Sep-2006, which came into effect on 07-Sep-2006.
14	Licence varied by notice 1071603, issued on 02-Nov-2007, which came into effect on 02-Nov-2007.
15	Licence varied by change to legislation, issued on 07-Nov-2007, which came into effect on 07-Nov-2007.
16	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
17	Licence varied by notice 1103985, issued on 01-Dec-2009, which came into effect on 01-Dec-2009.
18	Licence varied by notice 1112284, issued on 01-Sep-2010, which came into effect on 01-Sep-2010.

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19	Licence varied by notice 1120888, issued on 10-Jan-2011, which came into effect on 10-Jan-2011.
20	Licence varied by notice 1500503 issued on 13-Sep-2011
21	Licence varied by notice 1501631 issued on 29-Sep-2011
22	Licence varied by notice 1505019 issued on 27-Apr-2012
23	Licence varied by notice 1506097 issued on 02-Jul-2012