

Licence - 837

| Licence Details   |        |  |  |
|-------------------|--------|--|--|
| Number:           | 837    |  |  |
| Anniversary Date: | 02-May |  |  |

### **Licensee**

AMPOL REFINERIES (NSW) PTY LTD

**LOCKED BAG 2000** 

**TAREN POINT NSW 2229** 

### **Premises**

AMPOL REFINERIES (NSW) PTY LTD

**2 SOLANDER STREET** 

**KURNELL NSW 2231** 

## **Scheduled Activity**

Chemical storage

Shipping in bulk

| Fee Based Activity                | <u>Scale</u>                                       |
|-----------------------------------|--|
| Chemical storage waste generation | > 100 T annual volume of waste generated or stored |
| Petroleum products storage        | > 100000 kL storage capacity                       |
| Shipping in bulk                  | > 500000 T of annual capacity to load and unload   |

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|----------------------------|
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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);
- 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:

**AMPOL 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 annual volume of<br>waste generated or<br>stored |
| Chemical storage   | Petroleum products storage        | > 100000 kL storage capacity                             |
| Shipping in bulk   | Shipping in bulk                  | > 500000 T of annual capacity to load and unload         |

## A2 Premises or plant to which this licence applies

**Premises Details** 

A2.1 The licence applies to the following premises:

| AMPOL REFINERIES (NSW) PTY LTD |   |  |  |  |  |
|--------------------------------|---|--|--|--|--|
|                                | 2 SOLANDER STREET   |  |  |  |  |
|                                | KURNELL   |  |  |  |  |
|                                | NSW 2231  |  |  |  |  |
|                                | LOT 56 DP 908, LOT 57 DP 908, LOT 62 DP 908, LOT 11 DP 7632, 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, LOT 77 DP 8135, LOT 78 DP 8135, LOT 79 DP 8135, LOT 122 DP 8135, LOT 123 DP 8135, LOT 124 DP 8135, LOT 125 DP 8135, PART 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, PART LOT 81 DP 9564, PART LOT 1 DP 126647, PART LOT 2 DP 126647, LOT 1 DP 132055, LOT 1 DP 215818, LOT 2 DP 215818, PART LOT 1 DP 215819, LOT B DP 338897, LOT D DP 361103, LOT F DP 361103, LOT G DP 361103, LOT J DP 362655, LOT K DP 362655, LOT H DP 362655, 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, LOT 2 DP 1087718, LOT 3 DP 1087718, LOT 4 DP 1087718, LOT 5 DP 1087718, LOT 6 |  |  |  |  |

DP 1087718, LOT 1 DP 1087807, LOT 2 DP 1087807



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#### LOT 1 PO1967/168

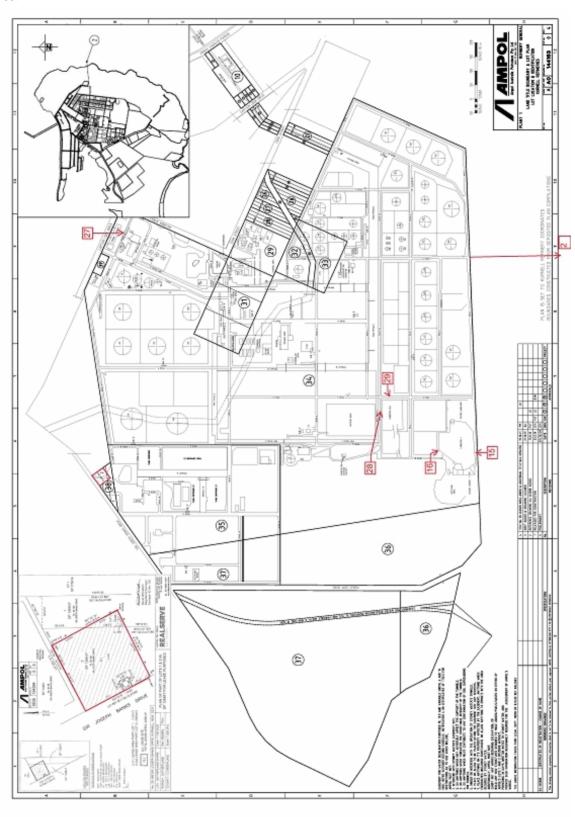
THE PREMISES, TO WHICH THE LICENCE APPLIES, ALSO INCLUDES: (A) THE KURNELL WHARF AND ASSOCIATED PIPELINES AS SHOWN ON FIGURE 4.1 PROVIDED IN THE ENVIRONMENTAL IMPACT STATEMENT TITLED "KURNELL PORTS AND BERTHING FACILITY - MAIN REPORT - VOLUME 1" DATED FEBRUARY 2013.

(B) THE SUBMARINE PIPELINES CONNECTING THE SUB BERTH TO THE KURNELL WHARF AS SHOWN ON THE ABOVE FIGURE; AND (C) ANY VESSEL BERTHED AT FIXED BERTHS NO. 1, 2 AND/OR THE SUB BERTH AS SHOWN ON THE ABOVE FIGURE FOR THE PURPOSE OF UNDERTAKING THE SCHEDULED ACTIVITY OF SHIPPING IN BULK.

A2.2 The premises location is shown on the map below.



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## A3 Information supplied to the EPA

A3.1 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.



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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; andb) 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 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.
- 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.

#### Water and land

| EPA Identification no. | Type of Monitoring Point               | Type of Discharge Point | Location Description  |
|------------------------|--|-------------------------|---|
| 2                      |  | Discharge to waters     | Submerged ocean outfall at Yena Gap labelled "2" on Ampol drawing No. 144163 titled "Land Title Boundary & Lot Plan" provided on 19 March 2021. Note: Monitoring is at Point 27.        |
| 15                     | Groundwater quality monitoring         |                         | Bioremediation plot (landfarm) - permanent monitoring well PWM 8 labelled "15" on Ampol drawing No. 144163 titled "Land Title Boundary & Lot Plan" provided on 19 March 2021.           |
| 16                     | Groundwater quality monitoring         |                         | Bioremediation plot - (landfarm) permanent monitoring well (PMW) 33 labelled "16" on Ampol drawing No. 144163 titled "Land Title Boundary & Lot Plan" provided on 19 March 2021.        |
| 27                     | Effluent quality and volume monitoring |                         | Sampling port in wastewater treatment plant labelled "27" on Ampol drawing No. 144163 titled "Land Title Boundary & Lot Plan" provided on 19 March 2021. Note: Discharge is at Point 2. |



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| 28 | Groundwater quality monitoring | Asbestos Contaminated Soil Containment Cell - Permanent monitoring well labelled "28 - Pipetrack 1" on Ampol drawing No. 144163 titled "Land Title Boundary & Lot Plan" provided on 19 March 2021. |
|----|--------------------------------|--|
| 29 | Groundwater quality monitoring | Asbestos Contaminated Soil Containment Cell - Permanent monitoring well labelled "29 - Causway" on Ampol drawing No. 144163 titled "Land Title Boundary & Lot Plan" provided on 19 March 2021.     |

## 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.

#### 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) |
|---|-----------------|
| Benzene (Air)                             | 6000.00         |
| 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



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specified ranges.

- 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 Water and/or Land Concentration Limits

### **POINT 2**

| 11 Z                                   |                      |                                   |                                   |                                   |                                    |
|--|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| 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                               |
| BOD                                    | milligrams per litre | 20                                |                                   |                                   | 30                                 |
| BOD (Wet)                              | milligrams per litre |                                   |                                   |                                   | 350                                |
| Lead                                   | milligrams per litre |                                   |                                   |                                   | 0.025                              |
| Nickel                                 | milligrams per litre |                                   |                                   |                                   | 0.03                               |
| Nitrogen<br>(ammonia)                  | milligrams per litre |                                   |                                   |                                   | 7.5                                |
| Oil and<br>Grease                      | milligrams per litre |                                   |                                   | 10                                | -                                  |
| Oil and grease (Wet)                   | milligrams per litre |                                   |                                   |                                   | 70                                 |
| рН                                     | рН                   |                                   |                                   | 6.5-8.5                           | 6.0-9.0                            |
| Phenols                                | milligrams per litre | 0.3                               |                                   |                                   | 2.7                                |
| Phenols<br>(Wet)                       | milligrams per litre |                                   |                                   |                                   | 5                                  |
| Polycyclic<br>aromatic<br>hydrocarbons | milligrams per litre | 0.03                              |                                   |                                   | 0.5                                |
| Temperature                            | degrees Celsius      |                                   |                                   |                                   | 40                                 |
| Total<br>suspended<br>solids           | milligrams per litre | 35                                |                                   |                                   | 50                                 |



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TSS (Wet) milligrams per litre 100

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

- L3.5 For the purposes of Condition L3.4, for periods when the biotreater wastewater treatment plant is under bypass conditions as specified in Condition O6.3 of this licence, only the concentration limits for pH and Temperature and those which include the term "Wet" applies for discharges from Point 2.
- L3.6 For the purposes of Condition L3.4, phenols at Point 2 should be read as total phenolics.

#### L4 Waste

L4.1 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  |
|------|--|-------------|----------|---|
| NA   | General or Specific exempted waste                       |             |          | NA  |
| NA   | Waste  |             |          | NA  |
| J120 | Waste oil/hydrocarbons<br>mixtures/emulsions in<br>water |             |          | Generated from licensee activities and/or transferred via pipeline from Caltex Banksmeadow Terminal |

- L4.2 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.
- L4.3 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.
- L4.4 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



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annum). For the purposes of this licence biotreater sludge is not considered to be a waste.

- L4.5 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 either processed onsite or transferred to another refinery for reprocessing 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.

#### L5 Noise limits

- L5.1 Noise from the premises must not exceed:
  - a) An LAeq(15 minute) noise emission criterion of 60dB(A) (7:00am to 6:00pm) seven days a week; and
  - b) An LAeq(15 minute) noise emission criterion of 50dB(A) at all other times, and
  - c) An LAmax noise emission criterion of 55dB(A) (10:00pm to 7:00am) except as expressly provided by this licence.
- L5.2 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 L5.1. 5dB(A) must be added if the noise is tonal or impulsive in character
- L5.3 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.
- L5.4 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.
- L5.5 The noise emission limits identified in Condition L5.1 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.

### L6 Potentially offensive odour

- L6.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.
- L6.2 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



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emitted in accordance with the conditions of a licence directed at minimising odour.

## 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.
- O3.2 All operations and activities occurring at the premises must be carried out in a manner that will minimise 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 EPA 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.



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## O6 Other operating conditions

- O6.1 Use of the biotreater wastewater treatment plant bypass
- O6.2 All wastewater must be treated using the biotreater wastewater treatment plant or the oil/water separators and induced air flotation system prior to discharge at point 2 (Yena Gap).
- O6.3 Wastewater that has passed through the oil/water separator can only bypass the biotreater wastewater treatment plant for treatment in the induced air flotation unit (IAF) when:
  - 1. The influent flowrate exceeds the biotreater 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 biotreater wastewater treatment plant is off line for essential maintenance, or
  - 4. The pump capacity of the bypass pumps (number 15G-27) is being conducted to check maximum pump capacities and equipment availability, or
  - 5. The influent flowrate to the biotreater falls below its operational minimum treatment capacity (150kL/h).
- Note: The above bypass conditions may be varied in discussion with the licensee. In reviewing these conditions the EPA will take into consideration information including the frequency and duration of bypass events, monitoring data obtained under Condition M2 and the "Terminal Operations Wastewater Characterisation" Pollution Reduction Program.
- O6.4 Whenever wastewater bypasses the biotreater wastewater treatment plant and is discharged at Point 2 (Yena Gap), the licensee must maintain the flowrate through the biotreater wastewater treatment plant at its operational maximum treatment capacity, unless the biotreater wastewater treatment plant is off-line for essential maintenance or the influent flow rate to the biotreater falls below 150kL/h.
- Note: The biotreater bypass system (including the oil/water separators and induced air flotation system) is intended to act as a back-up system for the biotreater wastewater treatment plant.

The intention of Conditions O6.1 to O6.4 is to ensure that the biotreater wastewater treatment plant is treating wastewater within its operational maximum and minimum treatment capacities before wastewater is directed to the biotreater bypass system.

The "operational maximum treatment capacity" for the biotreater wastewater treatment plant is notionally 600kL/h. It may be less than 600kL/h depending on the number of "healthy" organisms in the biotreater wastewater treatment plant and the volume of wastewater stored in the equalisation tank.

O6.5 The licensee must record the time, date, duration and reason of each biotreater wastewater treatment plant bypass event.



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## 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.

## 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 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                      | рН                   | Quarterly | Grab sample      |
| Standing Water<br>Level | metres               | Quarterly | Special Method 1 |
| Toluene                 | milligrams per litre | Quarterly | Grab sample      |
| Total Phenolics         | milligrams per litre | Quarterly | Grab sample      |
| TRH                     | milligrams per litre | Quarterly | Grab sample      |
| Xylene                  | milligrams per litre | Quarterly | Grab sample      |

### POINT 27

| Pollutant Units of measure | Frequency | Sampling Method |  |
|----------------------------|-----------|-----------------|--|
|----------------------------|-----------|-----------------|--|



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| 2,4-dimethylphenol                    | milligrams per litre | Monthly             | Grab sample             |
|---------------------------------------|----------------------|---------------------|-------------------------|
| Arsenic                               | milligrams per litre | Monthly             | Grab sample             |
| Benzene                               | milligrams per litre | Monthly             | Grab sample             |
| BOD                                   | milligrams per litre | Special Frequency 1 | Grab sample             |
| BOD (Wet)                             | milligrams per litre | Special Frequency 2 | Grab sample             |
| Ethyl benzene                         | milligrams per litre | Monthly             | Grab sample             |
| Lead                                  | milligrams per litre | Monthly             | Grab sample             |
| Naphthalene                           | milligrams per litre | Monthly             | Grab sample             |
| Nickel                                | milligrams per litre | Monthly             | Grab sample             |
| Nitrogen (ammonia)                    | milligrams per litre | Special Frequency 1 | Grab sample             |
| Oil and Grease                        | milligrams per litre | Special Frequency 1 | Grab sample             |
| Oil and grease (Wet)                  | milligrams per litre | Special Frequency 2 | Grab sample             |
| pH                                    | рН                   | Continuous          | In line instrumentation |
| Phenanthrene                          | milligrams per litre | Monthly             | Grab sample             |
| PhenoIs                               | milligrams per litre | Special Frequency 1 | Grab sample             |
| Phenols (Wet)                         | milligrams per litre | Special Frequency 2 | Grab sample             |
| Polycyclic aromatic hydrocarbons      | milligrams per litre | Monthly             | Grab sample             |
| Sulfide (un-ionised hydrogen sulfide) | milligrams per litre | Special Frequency 1 | Grab sample             |
| Temperature                           | degrees Celsius      | Continuous          | In line instrumentation |
| Toluene                               | milligrams per litre | Monthly             | Grab sample             |
| Total suspended solids                | milligrams per litre | Special Frequency 1 | Grab sample             |
| TSS (Wet)                             | milligrams per litre | Special Frequency 2 | Grab sample             |

### **POINT 28,29**

| 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      |
| Mercury                          | milligrams per litre | Quarterly | Grab sample      |
| Naphthalene                      | milligrams per litre | Quarterly | Grab sample      |
| pH                               | рН                   | Quarterly | Grab sample      |
| Polycyclic aromatic hydrocarbons | milligrams per litre | Quarterly | Grab sample      |
| Standing Water<br>Level          | metres               | Quarterly | Special Method 1 |
| Toluene                          | milligrams per litre | Quarterly | Grab sample      |
| Total Phenolics                  | milligrams per litre | Quarterly | Grab sample      |
| TRH                              | milligrams per litre | Quarterly | Grab sample      |
| Xylene                           | milligrams per litre | Quarterly | Grab sample      |

Note: For the purposes of the table above for Point 27:

a) **Special Frequency 1** means once during any discharge.



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- b) **Special Frequency 2** means daily only during any discharge under biotreater wastewater treatment plant bypass conditions as specified in condition O6.3.
- c) any monitoring required for phenols is to be read as total phenolics
- d) the monitoring conducted at Point 27 is conducted to determine compliance with limits specified in Condition L3.4 for discharges from Point 2.

Note: For the purposes of the table above for Points 15, 16, 28 and 29 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.

## M3 Testing methods - concentration limits

M3.1 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.

### M4 Testing methods - load limits

Note: Division 3 of the *Protection of the Environment Operations (General) Regulation 2021* requires that monitoring of actual loads of assessable pollutants listed in L2.2 must be carried out in accordance with the relevant load calculation protocol set out for the fee-based activity classification listed in the Administrative Conditions of this licence.

### M5 Recording of pollution complaints

- M5.1 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.
- M5.2 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.
- M5.3 The record must be produced to any authorised officer of the EPA who asks to see them.



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M5.4 The record of a complaint must be kept for at least 4 years after the complaint was made.

### M6 Telephone complaints line

- M6.1 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.
- M6.2 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.
- M6.3 The preceding two conditions do not apply until 3 months after the date of the issue of this licence.

## M7 Requirement to monitor volume or mass

- M7.1 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 |

# 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:
  - 1. a Statement of Compliance,
  - 2. a Monitoring and Complaints Summary,
  - 3. a Statement of Compliance Licence Conditions,
  - 4. a Statement of Compliance Load based Fee,
  - 5. a Statement of Compliance Requirement to Prepare Pollution Incident Response Management Plan,
  - 6. a Statement of Compliance Requirement to Publish Pollution Monitoring Data; and
  - 7. a Statement of Compliance Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

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



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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 via eConnect *EPA* or 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 Statements 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.

### 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 they became aware of the incident.



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### 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.

## 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) 2, 15, 16, 27, 28 and 29 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.



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## G3 Other general conditions

# G3.1 Completed Programs

| Environmental Audit systems, identify deficiencies and recommend solutions to monitoring system deficiencies  PRP 2: Noise To assess the noise impact of the activities of Assessment Report the premises.  PRP 3: CEM System To ensure CEMs installed at Point 8 are 31 accurate.  PRP 4: Review of To ensure that any impacts from residual 19 Environmental Impact of Cooling Water Discharge at Point 1  PRP 5: Water Quality to 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.  PRP 6: Septic Effluent To reduce the environmental impacts of septic Study waste release from the premises to Yena Gap and Tabbigai Gap.  PRP 7: Air Impact Assess the impact of air pollutant emissions 04 Assessment from the premises. |                  |
|--|------------------|
| Assessment Report the premises.  PRP 3: CEM System To ensure CEMs installed at Point 8 are 31 Certification Testing accurate.  PRP 4: Review of To ensure that any impacts from residual 19 Environmental Impact of chlorine in cooling water discharge at Point 1 Cooling Water Discharge at Point 1  PRP 5: Water Quality to 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.  PRP 6: Septic Effluent To reduce the environmental impacts of septic waste release from the premises to Yena Gap and Tabbigai Gap.  PRP 7: Air Impact Assess the impact of air pollutant emissions 04 Assessment from the premises.  PRP U1: Leak Detection To minimise emissions of benzene and VOCs 28  | 0-October-2003   |
| PRP 3: CEM System Certification Testing PRP 4: Review of Environmental Impact of Cooling Water Discharge at Point 1 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.  PRP 6: Septic Effluent To reduce the environmental impacts of septic Study  PRP 7: Air Impact Assess the impact of air pollutant emissions FRP U1: Leak Detection  To ensure CEMs installed at Point 8 are accurate.  To ensure CEMs installed at Point 8 are accurate.  19 21 22 31 31 31 32 32 34 34 35 36 36 37 38 38 39 30 30 30 30 30 30 30 30 30 30 30 30 30   | -January-2004    |
| PRP 4: Review of To ensure that any impacts from residual 19 Environmental Impact of chlorine in cooling water discharge at Point 1 are minimised at Point 1  PRP 5: Water Quality to 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.  PRP 6: Septic Effluent To reduce the environmental impacts of septic 34 Study waste release from the premises to Yena Gap and Tabbigai Gap.  PRP 7: Air Impact Assess the impact of air pollutant emissions 4 Assessment from the premises.  PRP U1: Leak Detection To minimise emissions of benzene and VOCs 28   | -January-2004    |
| 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.  PRP 6: Septic Effluent To reduce the environmental impacts of septic Study waste release from the premises to Yena Gap and Tabbigai Gap.  PRP 7: Air Impact Assess the impact of air pollutant emissions Assessment from the premises.  PRP U1: Leak Detection To minimise emissions of benzene and VOCs 28  | 9-December-2003  |
| PRP 6: Septic Effluent  Study  waste release from the premises to Yena Gap and Tabbigai Gap.  PRP 7: Air Impact  Assessment  PRP U1: Leak Detection  To reduce the environmental impacts of septic  waste release from the premises to Yena Gap and Tabbigai Gap.  04  Assessment  To minimise emissions of benzene and VOCs  28   | )-March-2005     |
| PRP 7: Air Impact Assess the impact of air pollutant emissions 04 Assessment from the premises. PRP U1: Leak Detection To minimise emissions of benzene and VOCs 28  | I-December-2004  |
| PRP U1: Leak Detection To minimise emissions of benzene and VOCs 28  | l-April-2005     |
| (LDAR)  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.  | 3-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.   | 7-June-2006      |
| Unit (SRU) - Reliability Improvement Report and Program 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).   | 9-November-2009  |
| PRP U4: Ambient Sulfur To determine the actual concentrations of SO2 29 Dioxide (SO2) Monitoring in the Kurnell community through the Stations establishment of ambient SO2 monitoring stations.   | 9-September-2007 |



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| - 837   |   |                  |
|---|---|------------------|
| PRP U5: Identification of<br>Major Sources of Sulfur<br>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<br>(SO2) Emissions<br>Inventory  | To quantify the major, non major and negligible sources of SO2 from the premises.   | 31-January-2008  |
| PRP U7: Sulfur Dioxide<br>(SO2) Impact<br>Assessment and Risk<br>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<br>(45F-10) H2S Emissions<br>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<br>Boiler Performance and<br>Oxides of Nitrogen (NOx)<br>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<br>Assessment   | To assess the impact of noise from the refinery including the operation of Clean Fuels Plant.   | 15-August-2006   |
| PRP U12: Solid Particles<br>and Hazardous<br>Substances Impact<br>Assessment                          | to undertake an air quality impact assessment<br>to ensure the premises can comply with the<br>EPA's environmental outcomes for solid<br>particles and hazardous substances   | 01-June-2008     |
| 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     |



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|--|--|------------------|
| PRP U14: Contaminated<br>Sites Risk Reduction<br>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 |
| PRP U15: Odour<br>Reduction Program                      | To continue to implement current odour mitigation measures and to 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.  | 02-May-2014      |
| PRP U16: VOC Emissions from Petroleum Storages           | To assess the effectiveness of sleeves on slotted guidepoles in reducing reported benzene and VOC emissions from storage tanks.  | 18-December-2020 |
| PRP U18: Threatened<br>Species Management<br>Plan        | To assess the risk of harm to threatened species, populations and EECs from actual or potential pollution from the premises and to identify management options to minimise any potential harm.   | 14-December-2015 |
| PRP U23: Integrated<br>Waste Management<br>Strategy      | To develop and implement an Integrated 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".   | 14-December-2012 |
| PRP U24: Stormwater<br>Catchment &<br>Management Program | To assess the existing stormwater and waste water collection systems and identify appropriate management strategies where necessary to prevent the discharge of contaminated waters from the premises at all times.  | 05-October-2012  |
| PRP U25: Terminal Operations Wastewater Characterisation | To characterise the wastewater being discharged to Yena Gap during the transition from refinery operations to terminal operations and to help inform future requirements for wastewater treatment  | 23-March-2016    |

## **Completed Special Conditions**

| Special Condition  | Description  | Completed Date |
|--|--|----------------|
| SC E2: Investigations to Reduce<br>Soot Blowing Activities &<br>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 |



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|--|---|--|--|--|--|
| SC E3: Feasibility Study for Particle<br>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 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 ensure the activities 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. | Draft Report submitted: 28 September 2012  Final Report submitted: 20 November 2012  Implementation Report submitted: 26 April 2013  Progress Report submitted: 18 December 2013 |  |  |  |
| SC E8: Bio-Pile Pilot Trial  | To assess the feasibility, sustainability and benefits of a constructed Bio-Pile at the Kurnell Refinery for the treatment, remediation and reuse of hydrocarbon impacted soils sourced from offsite locations  | Final Report submitted: 18 December 2015   |  |  |  |
| SC E9: Data Gap Investigation Plan                                 | To assess the data gaps related to the identification and management of contamination on, and related to, the refinery site   | 20 December 2018   |  |  |  |
| SC E11: Polyfluoroalkyl substances (PFAS) Data Gap Investigation   | To address data gaps identified in relation to the PFAS assessment undertaken at the site   | 31 March 2017  |  |  |  |
| SC E12: Continuous Noise Monitor at the Kurnell Wharf              | To trial the use of a noise monitor at the Kurnell wharf for a period of six months to continually monitor noise from shipping activities, assess compliance with the project approval noise limits and to encourage the licensee to proactively implement mitigation measures to address noise impacts on the Kurnell community.             | 31 July 2018   |  |  |  |
| SC E13: Per- and Poly-fluoroalkyl substances (PFAS) Investigations | To prepare a PFAS Action Plan to delineate the extent of PFAS contamination offsite, assess risks to offsite receptors and prevent further offsite migration of PFAS from the site.   | 30 October 2019  |  |  |  |
| SC E14: PFAS Sampling and Analysis Quality Plan                    | To identify, respond and report on PFAS that has the potential to migrate off the site via groundwater and/or stormwater.   | 28 June 2019   |  |  |  |



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### **Deleted PRPs and Special Conditions**

| PRP or Special<br>Condition                              | Description   | Original Completion Date | Date Removed     | Reason   |
|--|---|--------------------------|------------------|--|
| PRP U17: Noise<br>Impact<br>Assessment and<br>Mitigation | implement and   | 15 December 2014         | 13 November 2012 | Removed from licence due to closure of the Refinery announced on 26 July 2012. Refinery to be converted into a fuel terminal by end of 2014. Noise issues will be assessed in the EIS for the terminal conversion project. Noise levels will reduce significantly in terminal mode.  |
| PRP U19:<br>Wastewater<br>Survey - Yena Gap<br>Discharge | To characterise the wastewater being discharged to Yena Gap and to assess the environmental risks.  | 15 December 2013         | 13 November 2012 | Removed from licence due to closure of the Refinery announced on 26 July 2012. Refinery to be converted into a fuel terminal by end of 2014. Wastewater discharges will be assessed in the EIS for the terminal conversion project. A PRP addressing wastewater and its treatment may be negotiated and included as part of the Caltex terminal licence. |
| PRP U22: Major<br>Oil Spill Clean Up<br>Contingency Plan | 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. | 30 March 2015            | 13 November 2012 | Removed from licence due to closure of the Refinery announced on 26 July 2012. Refinery to be converted into a fuel terminal by end of 2014. A similar PRP may be negotiated and included as part of the Caltex terminal licence.  |



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|-------|--|--|------------------|------------------|---|--|--|
|       | SC E4: Air Quality<br>Impact<br>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.  | 13 December 2013 | 13 November 2012 | Removed from licence due to closure of the Refinery announced on 26 July 2012. Refinery to be converted into a fuel terminal by end of 2014. Air Quality to be assessed in the EIS for the terminal conversion project.   |  |  |
|       | SC E5: Cost<br>Benefit Analysis<br>for Upgrading<br>Plant and<br>Equipment to<br>Meet Group 5<br>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). | 13 June 2014     | 13 November 2013 | Removed from licence due to closure of the Refinery announced on 26 July 2012. Refinery to be converted into a fuel terminal by end of 2014. Air Quality to be assessed in the EIS for the terminal conversion project.   |  |  |
|       | PRP U20:<br>Soil/Groundwater<br>Risk Reduction<br>Program  | 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.                                      | 15 December 2015 | 15 January 2015  | Removed from the licence due to the completion of the Preliminary Investigation Order (PIO) (Notice 20131001) issued under section 10 of the Contaminated Land Management Act 1997 on 17 June 2013. Special Condition SC E9 has been added to the licence as an outcome of the PIO. |  |  |
|       | PRP U21:<br>Landfarm<br>Management Plan  | To evaluate alternative options for the sustainable management of oily wastes/sludges that will facilitate Caltex to cease landfarming at the premises.  | 31 March 2013    | 15 December 2017 | Removed from the licence due to PRP being reassessed as part of the EIS for the terminal conversion project. Assessment of the landfarm has been integrated with Special Condition SC E9: Data Gap Investigation Plan.  |  |  |



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| SC E10: Soil         | Operation of the soil    | Ongoing | 26 February 2018 | Removed from the     |  |
|----------------------|--------------------------|---------|------------------|----------------------|--|
| Regeneration         | regeneration facility to |         |                  | licence following a  |  |
| Facility             | receive and treat        |         |                  | decision by the      |  |
|                      | hydrocarbon              |         |                  | licensee to close    |  |
|                      | contaminated soils       |         |                  | the facility due to  |  |
| from offsite sources |                          |         |                  | operational matters. |  |
|                      | and reuse the treated    |         |                  |                      |  |
|                      | soil at the Kurnell      |         |                  |                      |  |
|                      | Terminal for             |         |                  |                      |  |
|                      | engineering purposes.    |         |                  |                      |  |

## 8 Pollution Studies and Reduction Programs

## U1 PRP U26: Monitoring Program for the Ampol Wharf Drain

U1.1 EPA has received community complaints regarding the stormwater drain adjacent to the Ampol wharf on Silver Beach (Wharf Drain) for an extended period of time. The complaints often reference a sheen, a dark colour, and a hydrocarbon odour. Recent EPA water sampling results are variable and have periodically identified the presence of low levels of hydrocarbons and BTEX which indicate the presence of small amounts of fuel in the drain. The drain catchment captures the Ampol premises (part), a residential area, and the national park.

This PRP requires a period of routine monitoring of pollutant discharges from the Wharf drain (and other significant drains in the catchment) to identify any fuel related pollutants from the Ampol premises entering, and ultimately discharging from the drain. Following the collation of a monitoring dataset, possible PRP outcomes may include additional monitoring, further investigations, stormwater treatment, or licence changes.

- U1.2 Unless otherwise agreed in writing by the EPA:
  - 1. By 13 June 2022, the licensee must propose a suitably qualified independent expert(s) to the EPA for approval (approved expert). The proposal must include a CV and an explanation of the qualifications of why this person(s) or company has the qualifications to undertake the required work.
  - 2. By 4 July 2022, the licensee must submit a proposed Pollutant Discharge Monitoring Program (Program) to the EPA for Approval. The program must be developed by the approved expert.
  - 3. The licensee must revise the proposed Program by addressing any written comments provided by the EPA.
  - 4. The proposed Program must include:
  - a) A clear delineation of the catchment basin and drainage network that feeds into the Wharf Drain using maps, plans and / or diagrams.
  - b) A proposed assessment of drain / pipeline integrity using CCTV and other methods to assess the condition of the stormwater management network on site.
  - c) A proposed review of any existing information, including monitoring data and previous reports.
  - d) Proposed water sampling and analysis:



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- i) Monitored analytes must include, but may not be limited to, TRH, BTEX, and other appropriate compounds present in fuel products..
- ii) Sampling of discharges at the Wharf drain as well as the separators located within the Right of Way on the southern side of Prince Charles Parade, separators located within Ampol premises near Gate 5, and at any other significant points of inflow to the drain.
- iii) Specific equipment and / or methodology to undertake routine or continuous sampling over a 3 month period to capture a range of operating and natural scenarios. That is, varied operations as well as tides and rainfall events where practicable, that would materially impact discharge water quality.
- iv) Sampling and analysis for each analyte in accordance with the 'Approved Methods for the Sampling and Analysis of Water Pollutants in NSW' (2004).
- v) The level of reporting for pollutant concentrations must be sensitive enough to detect pollutants at levels related to their environmental risk and the ANZG 2018 toxicant guideline value (where available) while having regard to the best available analytical practical quantification limits using available technology.
- e) Incorporate proposed routine air monitoring of Volatile Organic Compounds into the program of water sampling such that sampling of air and water are concurrent. Assessment of odours will be achieved through the interpretation of the air sampling results.
- f) The expert undertaking the air sampling will make a qualitative assessment of the odours at times of sampling. The qualitative assessment must be undertaken and recorded by an olfactory trained person.
- g) Propose stakeholder consultation with Sutherland Shire Council in development of the monitoring program.
- 5. The licensee is to submit a final report on the approved program to the EPA 6 weeks after completion of the sampling component of the program. The report must include the items covered at 4 above and the following matters:
- h) a presentation and discussion of results as well as recommendations for next steps in the program.
- i) details of stakeholder consultation with Sutherland Shire Council in development and implementation of the program.
- j) details of the consideration of any community complaints, observations, or relevant data provided to Ampol.
- 6. Upon submission of the final report, the licensee must provide the EPA with its plans to update the Kurnell community on program outcomes and next steps.

Note: The EPA intends to impose further conditions to this licence / PRP requiring implementation of next steps.

# 9 Special Conditions

### E1 SC E15: PFAS Sampling and Analysis Quality Plan

E1.1 The licensee must implement the Caltex Kurnell Terminal: Per- and poly-fluoroalkyl substances (PFAS) Sampling and Analysis Quality Plan (SAQP)" dated June 2019 or as otherwise revised by recommendations



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by the appointed Contaminated Site Auditor accredited by the EPA under the Contaminated Land Management Act 1997.

The Plan provides a program of works that the licensee must undertake to identify, respond and report on PFAS that has the potential to migrate off the premises via groundwater and/or stormwater. The plan provides a program of regular monitoring and assessment of PFAS for the broader Kurnell Terminal site.

#### Reporting

Unless otherwise agreed in writing by the EPA, the licensee must prepare and submit to the EPA a written report by **30 October 2021** detailing:

- a) the outcomes of the PFAS SAQP;
- b) an update on the sampling works to evaluate the performance of onsite PFAS controls to prevent further offsite migration via surface waters and/or groundwater. This includes the permeable reactive barrier (PRB) installed in the stormwater drain that runs south from the former fire training area; and
- c) an update on the review of potential disposal options for PFAS fire-fighting foams remaining on the site.

Note: The SAQP should be revised based on changes in the contaminant profile/distribution and/or updates to regulatory guidance. Unless otherwise agreed in writing by the EPA, the licensee must submit a revised copy of the plan to the EPA within 7 days of the plan being updated.

Note: The SAQP must be accompanied by evidence of endorsement of the SAQP by a Contaminated Sites Auditor accredited under the Contaminated Land Management Act 1997.

Note: Should the licensee identified a change in the assessed exposure pathway or an increase in the level of risk as a result of the offsite monitoring program, the licensee must notify the EPA in writing within 7 days and identify any contingency measures that will be implemented.

### E2 SC E16: Remediation Action Strategy

E2.1 The licensee must implement the "Caltex Kurnell Remediation Action Strategy" (RAS) dated December 2019 or as otherwise revised (including subsequent addendum reports referred to in the Strategy). The RAS provides details of remediation works which will be undertaken by the licensee to address legacy contamination at the site.

### Reporting

Unless otherwise agreed in writing by the EPA, the licensee must prepare and submit to the EPA an annual written report by the end of November each year providing updates on the progress of the remediation works detailed in the RAS, including any changes to timeframes identified in the RAS.

#### Completion Date: 30 November each year

Note: The licence may be varied in discussion with the licensee should any additional data gaps be identified through the implementation of the RAS.

### E3 SC E17: Tank Turnaround and Inspection Program

E3.1 Pollution Reduction Program U16.2: Implementation of the Tank Sleeve Program required the licensee to



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upgrade a number of gasoline storage tanks with emissions reduction devices to reduce emissions of benzene and Volatile Organic Compounds (VOC) emissions.

During the program, the licensee expanded the scope of the program to include number of additional tanks that would be upgraded at the premises as part of the licensee's maintenance/turnaround and inspection program (T&I). These tanks included 204, 318, 408, 409, and 513. The licensee has committed to continue upgrading these tanks in accordance with the T&I schedule.

The licensee must prepare and submit to the EPA a written report providing an update on the progress of the following:

- a) identification of the tanks that have been upgraded
- b) identification of the remaining tanks requiring upgrade
- c) an update of the tank upgrade program schedule

## Completion Date: 30 October each year

Note: The licensee has advised that the inspection frequencies and maintenance programs at the premises are reviewed from time to time and optimised based on a risk-based inspection program. The program schedule may be subject to change as a result of the review process. The program schedule will be completed upon the upgrade of the five identified 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

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 Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act

(non-putrescible)



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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. |  |

pollution of waters [or water pollution]

plant

TM

Has the same meaning as in the Protection of the Environment Operations Act 1997

**premises** Means the premises described in condition A2.1

motor vehicles.

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 months. 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 Hawaste 19

Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act

Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as

1997

special waste Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act

1997

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.
- Licence varied by notice 1071603, issued on 02-Nov-2007, which came into effect on 02-Nov-2007.
- 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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| Licence - 007 |                                       |   |  |  |
|---------------|---------------------------------------|---|--|--|
| 19            | Licence varied by notice 10-Jan-2011. | 1120888, issued on 10-Jan-2011, which came into effect on |  |  |
| 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                             |  |  |
| 24            | Licence varied by notice              | 1509964 issued on 15-Nov-2012                             |  |  |
| 25            | Licence varied by notice              | 1514299 issued on 14-Jun-2013                             |  |  |
| 26            | Licence varied by notice              | 1516944 issued on 12-Sep-2013                             |  |  |
| 27            | Licence varied by notice              | 1519229 issued on 17-Jan-2014                             |  |  |
| 28            | Licence varied by notice              | 1521556 issued on 21-May-2014                             |  |  |
| 29            | Licence varied by notice              | 1523965 issued on 25-Aug-2014                             |  |  |
| 30            | Licence varied by notice              | 1524900 issued on 16-Jan-2015                             |  |  |
| 31            | Licence varied by notice              | 1530185 issued on 01-May-2015                             |  |  |
| 32            | Licence varied by notice              | 1538422 issued on 10-Mar-2016                             |  |  |
| 33            | Licence varied by notice              | 1538820 issued on 31-Mar-2016                             |  |  |
| 34            | Licence varied by notice              | 1544521 issued on 26-Sep-2016                             |  |  |
| 35            | Licence varied by notice              | 1547864 issued on 10-Feb-2017                             |  |  |
| 36            | Licence varied by notice              | 1553331 issued on 18-Jul-2017                             |  |  |
| 37            | Licence varied by notice              | 1559992 issued on 20-Dec-2017                             |  |  |
| 38            | Licence varied by notice              | 1560268 issued on 22-Dec-2017                             |  |  |
| 39            | Licence varied by notice              | 1564430 issued on 02-May-2018                             |  |  |
| 40            | Licence varied by notice              | 1565709 issued on 26-Jun-2018                             |  |  |
| 41            | Licence varied by notice              | 1571458 issued on 07-Mar-2019                             |  |  |
| 42            | Licence varied by notice              | 1577724 issued on 12-Apr-2019                             |  |  |
| 43            | Licence varied by notice              | 1606490 issued on 21-Apr-2021                             |  |  |
| 44            | Licence varied by notice              | 1619134 issued on 27-May-2022                             |  |  |