Licence Variation

Department of
Environment, Climate Change and Water NSW

Licence - 12555

TRANSPACIFIC REFINERS PTY. LTD.,

Trading as TRANSPACIFIC REFINERIES,

ABN 78 114 388 742,

PO BOX 246,

RUTHERFORD NSW 2320

Attention: Mr. RAY CARSON

Notice Number 1109259

File Number LIC07/628

Date 30-Aug-2010

NOTICE OF VARIATION OF LICENCE NO. 12555

BACKGROUND

A. TRANSPACIFIC REFINERS PTY. LTD. trading as TRANSPACIFIC REFINERIES ("the licensee") is the holder of Environment Protection Licence No. 12555 ("the licence") issued under the *Protection of the Environment Operations Act 1997* ("the Act"). The licence authorises the carrying out of Scheduled Activity - Premises Based at 11 KYLE STREET, RUTHERFORD, NSW.

B. On 26 August 2009 the licensee submitted an application to vary the licence to remove conditions U1, U2 and U3 from the licence.

C. On 22 December 2008 the EPA received a report titled *Operational Air and Noise Validation Report, Transpacific Refiners 11 Kyle Street Rutherford, NSW* prepared by ENSR Australia Pty Ltd and dated 10 December 2008. This report was submitted in fulfilment of Condition U1.

D. On 22 December 2008 the EPA received a report titled *Comprehensive Odour Audit Report 11 Kyle Street Rutherford, NSW* prepared by ENSR Australia Pty Ltd and dated 10 November 2008. This report was submitted in fulfilment of Condition U2.

E. On 22 July 2008 the EPA received a report titled *Phase 1 and 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW* prepared by ENSR Australia Pty Ltd and dated 8 July 2008. This report was submitted in fulfilment of Condition U3.

F. This notice varies the licence to incorporate licence amendments arising from the review of information submitted under conditions U1, U2 and U3.

G. On 4 December 2009 the EPA received a letter and report titled " *Transpacific Refiners – Review of Air Emissions Job No: 3663*" prepared by PAE Holmes and dated 27 November 2009. The letter and report provided information in relation to the control of emissions of solid particles and sulphuric acid mist from licence Point 19. This notice incorporates parts of that letter and report.

H. On 9 February 2010 the EPA received a submission from the licensee in response to a first draft of Notice 1109259. The Notice was amended to incorporate comments in this submission and again forwarded to the licensee for comment

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I. On 1 April 2010 the EPA received a submission from the licensee in response to the second draft of Notice 1109259. The Notice was amended to incorporate comments in this submission and again forwarded to the licensee for comment.

J. On 16 July 2010 the EPA received a submission from the licensee in response to the third draft of tNotice 1109259. This version of the notice incorporates comments made in that that submission.

VARIATION OF LICENCE NO. 12555

1. By this notice the EPA varies licence No. 12555 as set out in the attached document. This document contains a copy of the provisions of the licence marked with the variations that are made to it by this notice.

2. The variations to the licence are indicated in the following way:

   - if a strike through mark appears through any word or other text (eg. ~~Solids or~~) this indicates that the word or other text is deleted from the licence by this notice; and
   - if a underline appears under any word or other text (eg. must be treated) this indicates that the word or other text is added to the licence by this notice.

. . . . . .

Ms Karen Marler

Acting Unit Head

North East - Hunter

(by Delegation)

INFORMATION ABOUT THIS NOTICE

- This notice is issued under section 58(5) of the Act.
- Details provided in this notice, along with an updated version of the licence, will be available on the EPA's Public Register (http://www.environment.nsw.gov.au/prpoeo/index.htm) in accordance with section 308 of the Act.

Appeals against this decision

- You can appeal to the Land and Environment Court against this decision. The deadline for lodging the appeal is 21 days after you were given notice of this decision.

When this notice begins to operate

- The variations to the licence specified in this notice begin to operate immediately from the date of this notice, unless another date is specified in this notice.
- If an appeal is made against this decision to vary the licence and the Land and Environment Court directs that the decision is stayed the decision does not operate until the stay ceases to have effect or the Land and Environment Court confirms the decision or the appeal is withdrawn (whichever occurs first).

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Environment, Climate Change and Water NSW

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Section 55 Protection of the Environment Operations Act 1997

Environment Protection Licence

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Department of **Environment & Climate Change** NSW

Licence Details	
Number:	12555
Anniversary Date:	22-May
Review Due Date:	22-May-2012

Licensee
TRANSPACIFIC REFINERS PTY. LTD.
PO BOX 246
RUTHERFORD NSW 2320

Licence Type
Premises

Premises
TRANSPACIFIC REFINERS PTY LTD
11 KYLE STREET
RUTHERFORD NSW 2320

Scheduled Activity
Chemical production - petrochemical
Petroleum and fuel production
Waste storage
Waste processing (non-thermal treatment)

Fee Based Activity	**Scale**
~~Chemical storage waste generation~~	~~> 100 - T generated or stored~~
Petroleum products and fuel production	> 10000 - 200000 T produced
Chemical storage waste generation	> 100 - T generated or stored

Region
North East - Hunter
Ground Floor, NSW Govt Offices, 117 Bull Street
NEWCASTLE WEST NSW 2302
Phone: 02 49086800
Fax: 02 49086810
PO Box 488G NEWCASTLE
NSW 2300

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Department of Environment & Climate Change NSW

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).

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:

TRANSPACIFIC REFINERS PTY. LTD.
PO BOX 246
RUTHERFORD NSW 2320

subject to the conditions which follow.

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 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
Chemical production - petrochemical
Petroleum and fuel production
Waste storage
Waste processing (non-thermal treatment)

Fee Based Activity	Scale
~~Chemical storage waste generation~~	~~> 100 - T generated or stored~~
Petroleum products and fuel production	> 10000 - 200000 T produced
Chemical storage waste generation	> 100 - T generated or stored

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
TRANSPACIFIC REFINERS PTY LTD
11 KYLE STREET
RUTHERFORD
NSW
2320
LOT 223 DP 1037300

A3 Other activities

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

Chemical storage

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	Description of Location
~~1~~	~~Discharge to Air~~	~~Discharge to Air~~	~~In the discharge duct downstream of the stainless steel fired heater and before the junction with the fired heater stack~~
2	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	3.0 MW Boiler stack
3	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	0.2 MW Boiler stack
4	Discharge to air ~~Air emissions monitoring~~	Discharge to air ~~Air emissions monitoring~~	Flare
5	Air emissions monitoring	Air emissions monitoring	Emissions from light ends scrubber (vapour recovery unit)
~~18~~	~~Discharge to air~~	~~Discharge to air~~	~~In the discharge duct downstream of the fired heater serving the flashpoint correction column and before the junction with the fired heater emission stack~~
19	Discharge to Air	Discharge to Air	Stack serving the fired heaters
20	Discharge to Air	Discharge to Air	Hydrogen Reformer Burner
21	Weather Monitoring		Rooftop near southwest corner of the control room

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.

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Water and land

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
6	Groundwater quality monitoring		Bore ~~MW13~~MW21 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.
7	Groundwater quality monitoring		Bore ~~MW14~~MW18 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.
8	Groundwater quality monitoring		Bore ~~MW15~~MW17 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.
9	Groundwater quality monitoring		Bore ~~MW10~~MW20 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.
10	Groundwater quality monitoring		Bore ~~MW11~~MW12 as shown in Figure 2 of the document "Phase 1 & 2 Environmental Site Assessment: Transpacific Refiners, Kyle Street, Rutherford, NSW" prepared by ENSR Australia Pty Ltd and dated 8 July 2008.
~~11~~	~~Groundwater quality monitoring~~		~~Bore MW12~~

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)
Arsenic (Air)	
Benzene (Air)	26
Benzo(a)pyrene (equivalent) (Air)	4.6
Fine Particulates (Air)	1360
Hydrogen Sulfide (Air)	64
Lead (Air)	
Mercury (Air)	
Nitrogen Oxides (Air)	10000
Sulfur Oxides (Air)	46000
Volatile organic compounds (Air)	850

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.

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.

Air

POINTS 2,3,20

Pollutant	Units of measure	100 percentile concentration limit
Nitrogen Oxides	milligrams per cubic metre	350
Volatile organic compounds	milligrams per cubic metre	10
Solid Particles	milligrams per cubic metre	10

~~**POINT 4**~~

~~Pollutant~~	~~Units of measure~~	~~100 percentile concentration limit~~
~~Smoke Emissions~~	~~Visible~~	~~See Note 1~~
~~Volumetric flowrate~~	~~cubic metres per second~~	~~0.75~~

POINT 5

Pollutant	Units of measure	100 percentile concentration limit
Volatile organic compounds	milligrams per cubic metre	20

POINT 19

Pollutant	Units of measure	100 percentile concentration limit
Nitrogen Oxides	milligrams per cubic metre	350
Volatile organic compounds	milligrams per cubic metre	10
Hydrogen Sulfide	milligrams per cubic metre	5
Sulphur dioxide	milligrams per cubic metre	1360
Solid Particles	milligrams per cubic metre	10
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	100
~~Carbon monoxide~~	~~milligrams per cubic metre~~	~~100~~

~~Note 1: No visible emission other than for a total period of no more than 5 minutes in any 2 hour period.~~

L4 Volume and mass limits

L4.1 Not applicable.

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.

Condition L5.1 does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
J100	Waste mineral oils unfit for their original intended use		Store and Process (non-thermal treatment)	Must not exceed 40,000 tonnes per year
J120	Waste oil/water, hydrocarbons/water mixtures or emulsions		Store	Must not exceed 120 tonnes at any one time
D210	Spent catalyst		Store	must not exceed 120 tonnes at any time
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		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

L6 Noise Limits

Noise from the premises must not exceed:
(a) 37dB(A) $L_{Aeq(15\ minute)}$ at (Receptor B);
(b) 35 dB(A) $L_{Aeq(15\ minute)}$ at (Receptors A to P excluding B); and
(c) 49 dB(A) LA1(1 minute) at Receptors A to P during the hours 10pm to 7am Monday to Saturday and 10pm to 8am Sunday

at all times, except as expressly provided by this licence.

Where L_{Aeq} means the equivalent continuous noise level – the level of noise equivalent to the energy-average of noise levels occurring over a measurement period.

Where Receptors A to P are identified in the document "*Rutherford Resource Recovery and Recycling Facility, Environmental Assessment, Volume 3 Appendix K*" prepared by Parsons Brinkerhoff and dated January 2006.

L6.1 To determine compliance with condition(s) L6.1 noise must be measured at, or computed for, at the identified noise sensitive receptor. A modifying factor correction must be applied for tonal, impulsive or intermittent noise in accordance with the "Environmental Noise Management - NSW Industrial Noise Policy (January 2000)".

L7 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 Potentially offensive odour

L8.1 No condition in 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.

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 Waste oil and other non-standard fuels must not be burnt or used as fuel on the site.

O4 All boilers must be fuelled only by natural gas.

O5 Emergency response

O5.1 Within 3 months of the date of the issue of this licence, the licensee must develop, or update, an emergency response plan which documents the procedures to deal with all types of incidents (eg spill, explosions or fire) that may occur at the premises or outside of the premises (eg during

transfer) which are likely to cause harm to the environment.

O6 Processes and management

O6.1 The licensee must ensure that any liquid and/or non liquid waste for treatment, processing, reprocessing or disposal at the premises is assessed and classified in accordance with the ~~DECC~~ Waste Classification Guidelines produced by the Department of Environment, Climate Change and Water (DECCW) as in force from time to time.

O6.2 The licensee must ensure that waste identified for recycling is stored separately from other waste.

O7 Environmental systems

O7.1 All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

O7.2 The licensee must ensure that suitable measures (e.g. High/low alarms, control valves with interlock control, one way valves) are installed on all tanks, ponds or clarifiers and associated pipes and hoses to prevent the spillage of waste.

O8 Flare Operation

O8.1 The flare must not operate except during start up, shutdown and permissible process upsets.

~~O8.2 Except for the initial commissioning period (which is a four month period from the start up date) process upsets must not exceed 2% of the process operating time annually.~~

O8.2 Process upsets must not exceed 2% of the total process operating time during any 12 month period.

O8.3 There must be no visible emission from Point 4 other than for a total period of no more than 5 minutes in any 2 hour period.

O9 Prescribed Control Equipment

O9.1 The licensee must not use or operate, or cause to be used or operated, any fuel burning equipment or industrial plant in or on the premises unless that equipment or plant is fitted with the control equipment prescribed in clauses 50(2), 50(3), 50(4), 50(5), 50(6), 50(7), 50(8), 51(2), 51(3), 51(4), 51(5), 51(6), 52(2), 52(3), 52(4), 52(5), 52(6), 53(2), 53(3), 53(4), 53(5), 54(2), 54(3) and 54(4) of Part 5 of the Protection of the Environment Operations (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005.

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:

POINTS 1,18,192,3

Pollutant	Units of measure	Frequency	Sampling Method
Carbon monoxideDry gas density	milligramskilograms per cubic metre	Special Frequency 1Yearly	TM-3223
Dry gas densityMoisture	kilograms per cubic metrepercent	Special Frequency 1Yearly	TM-3222
FormaldehydeMolecular weight of stack gases	milligrams per cubic metregram mole	Special Frequency 1Yearly	Special Method 1TM-23
Hydrogen SulfideNitrogen Oxides	milligrams per cubic metre	Special Frequency 1Yearly	TM-511
MethaneOxygen (O2)	milligrams per cubic metrepercent	Special Frequency 1Yearly	TM-3425
MoistureSolid Particles	percentmilligrams per cubic metre	Special Frequency 1Yearly	TM-2215
Molecular weight of stack gasesTemperature	grams per gram moledegrees Celsius	Special Frequency 1Yearly	TM-23
Nitrogen OxidesVelocity	milligrams per cubic metremetres per second	Special Frequency 1Yearly	TM-112
OdourVolatile organic compounds	odour unitsmilligrams per cubic metre	Special Frequency 1Yearly	OM-7TM-34
Oxygen (O2)Volumetric flowrate	percentnormalised cubic metres per second	Special Frequency 1Yearly	TM-23

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POINT 5

Polycyclic aromatic hydrocarbonsPollutant	milligrams per cubic metreUnits of measure	Special Frequency 1	OM-6Sampling Method
Solid ParticlesMoisture	milligrams per cubic metrepercent	Special Frequency 1	TM-1522
Sulfuric acid mist and sulfur trioxide (as SO3)Odour	milligrams per cubic metreodour units	Special Frequency 12	TM-3OM-7
Sulphur dioxidePolycyclic aromatic hydrocarbons	milligrams per cubic metre	Special Frequency 1Yearly	TM-4OM-6
Temperature	degrees Celsius	Special Frequency 1	TM-2
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Velocity	metres per second	Special Frequency 1	TM-2
Volatile organic compounds	milligrams per cubic metre	Special Frequency 1	TM-34
Volumetric flowrate	normalised cubic metres per second	Special Frequency 1	TM-2

POINTS 2,3,206,7,8,9,10

Pollutant	Units of measure	Frequency	Sampling Method
Carbon monoxideTetrachloroethene (tetrachloroethylene)	milligramsmicrograms per cubic metre	Special Frequency 1Every 6 months	TM-32Representative sample
Total Petroleum Hydrocarbons C10-C36 Fraction	micrograms per cubic metre	Every 6 months	Representative sample
Total Petroleum Hydrocarbons C6-C9 Fraction	micrograms per cubic metre	Every 6 months	Representative sample

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POINT 19

Pollutant	Units of measure	Frequency	Sampling Method
Dry gas density	kilograms per cubic metre	Special Frequency 1	TM-23
Formaldehyde	milligrams per cubic metre	Yearly	Special Method 1
Hydrogen Sulfide	milligrams per cubic metre	Special Frequency 1	TM-5
Moisture	percent	Special Frequency 1	TM-22
Molecular weight of stack gases	grams per gram mole	Special Frequency 1	TM-23
Nitrogen Oxides	milligrams per cubic metre	Special Frequency 1	TM-11
Odour	odour units	Special Frequency 1	OM-7
Oxygen (O2)	percent	Special Frequency 1	TM-2325
Polycyclic aromatic hydrocarbonsSolid Particles	milligrams per cubic metre	Special Frequency 1	OM-6TM-15
Solid ParticlesSulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	Special Frequency 1	TM-153
Sulfuric acid mist and sulfur trioxide (as SO3)Sulphur dioxide	milligrams per cubic metre	Special Frequency 1Yearly	TM-34
Sulphur dioxideTemperature	milligrams per cubic metredegrees Celsius	Special Frequency 1	TM-42
TemperatureVelocity	Celsiusmetres per second	Special Frequency 1	TM-2
VelocityVolatile organic compounds	metres per secondmilligrams per cubic metre	Special Frequency 1Yearly	TM-234
Volatile organic compoundsVolumetric flowrate	milligrams per normalised cubic metres per second	Special Frequency 1	TM-342
Volumetric flowrate	cubic metres per second	Special Frequency 1	TM-2

POINT 420

Pollutant	Units of measure	Frequency	Sampling Method
Smoke Emissions	Visible	Special Frequency 2	Inspection
Volumetric flowrate	cubic metres per second	Special Frequency 1	TM-2

POINT 5

Pollutant	Units of measure	Frequency	Sampling Method
Polycyclic aromatic hydrocarbons	milligrams per cubic metre	Special Frequency 1	OM-6
Temperature	Celsius	Special Frequency 1	TM-2
Volatile organic compounds	milligrams per cubic metre	Special Frequency 1	TM-34
Volumetric flowrate	normalised cubic metres per second	Special Frequency 1	TM-2

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POINTS 6,7,8,9,10,11

Pollutant	Units of measure	Frequency	Sampling Method
BenzeneDry gas density	micrograms per litrekilograms per cubic metre	QuarterlyYearly	Grab sampleTM-23
Ethyl benzeneHydrogen Sulfide	micrograms per litremilligrams per cubic metre	QuarterlyYearly	Grab sampleTM-5
PhenolsMoisture	micrograms per litrepercent	QuarterlyYearly	Grab sampleTM-22
Polycyclic aromatic hydrocarbonsMolecular weight of stack gases	micrograms per litregram mole	QuarterlyYearly	Grab sampleTM-23
Tetrachloroethene (tetrachloroethylene)Nitrogen Oxides	micrograms per litremilligrams per cubic metre	QuarterlyYearly	Grab sampleTM-11
TolueneOdour	micrograms per litreodour units	QuarterlyYearly	Grab sampleOM-7
Total petroleum hydrocarbonsOxygen (O2)	micrograms per litrepercent	QuarterlyYearly	Grab sampleTM-25
XyleneSolid Particles	micrograms per litremilligrams per cubic metre	QuarterlyYearly	Grab sampleTM-15
Temperature	degrees Celsius	Yearly	TM-2
Velocity	metres per second	Yearly	TM-2
Volatile organic compounds	milligrams per cubic metre	Yearly	TM-34
Volumetric flowrate	normalised cubic metres per second	Yearly	TM-2

Special method 1 means method described in US EPA 323

M2.2 For each monitoring/discharge point specified below (by a point number), the licensee must adjust the monitoring results for the pollutants listed in Column 1 to the units of measure and reference conditions specified opposite in the other columns.

Special Frequency 1 - means monitoring quarterly for the first year after commissioning of the facility is complete. The monitoring frequency will be reviewed after one year of normal operations of the plant.

POINT 5

Special Frequency 2 - During operation of the flare

Pollutant / Parameter	Units of measure	Reference Conditions
Volatile organic compounds (VOC)[1]	mg/m³	Dry, 273 K 101.3 kPa
Hydrogen sulfide	mg/m³	Dry, 273 K, 101.3 kPa
Polycyclic aromatic hydrocarbons	mg/m³	Dry, 273 K 101.3 kPa
Nitrogen dioxide (NO_2) or nitric oxide (NO) or both	mg/m³	Dry, 273 K 101.3 kPa
Solid Particles	mg/m³	Dry, 273 K 101.3 kPa
Formaldehyde	mg/ m³	Dry, 273 K 101.3 kPa
Sulfuric acid mist and sulphur trioxide (as SO3)	mg/m³	Dry, 273 K 101.3 kPa
Sulfur dioxide	mg/m³	Dry, 273 K 101.3 kPa

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Pollutant / Parameter	Units of measure	Reference Conditions
Volatile organic compounds (VOC)[1]	mg/m³	Dry, 273 K 101.3 kPa, 8% O_2
Hydrogen sulfide	mg/m³	Dry, 273 K, 101.3 kPa, 8% O_2

Pollutant / Parameter	Units of measure	Reference Conditions
Nitrogen dioxide (NO_2) or nitric oxide (NO) or both	mg/m³	Dry, 273 K 101.3 kPa, 8% O_2
Solid Particles	mg/m³	Dry, 273 K 101.3 kPa, 8% O_2
Formaldehyde	mg/ m³	Dry, 273 K 101.3 kPa, 8% O_2
Sulfuric acid mist and sulphur trioxide (as SO3)	mg/m³	Dry, 273 K 101.3 kPa, 8% O_2
Sulfur dioxide	mg/m³	Dry, 273 K 101.3 kPa, 8% O_2

POINT 20

Pollutant / Parameter	Units of measure	Reference Conditions
Volatile organic compounds (VOC)[1]	mg/m³	Dry, 273 K 101.3 kPa, 4% O_2
Hydrogen sulfide	mg/m³	Dry, 273 K, 101.3 kPa, 4% O_2
Polycyclic aromatic hydrocarbons	mg/m³	Dry, 273 K 101.3 kPa, 4% O_2
Nitrogen dioxide (NO_2) or nitric oxide (NO) or both	mg/m³	Dry, 273 K 101.3 kPa, 4% O_2
Solid Particles	mg/m³	Dry, 273 K 101.3 kPa, 4% O_2
Formaldehyde	mg/ m³	Dry, 273 K 101.3 kPa, 4% O_2
Sulfuric acid mist and sulphur trioxide (as SO3)	mg/m³	Dry, 273 K 101.3 kPa, 4% O_2
Sulfur dioxide	mg/m³	Dry, 273 K 101.3 kPa, 4% O_2

Note 1 – VOC as n-propane equivalent.

~~M2.2 Requirement to monitor weather~~ **Special Method 1** – means the method described in US-EPA 323

Special Frequency 1 - means that sampling will be undertaken on a quarterly basis for a period of not less that one (1) year. The minimum number of sampling events required within one (1) reporting period is four (4).

Following the completion of at least four (4) sampling events, the licensee may request in writing to have the sampling frequency varied to Special Frequency 2.

Special Frequency 2 – means that sampling will be undertaken on a bi-annual basis for a period on not less than one (1) year. The minimum number of sampling events required within one reporting period is two (2).

Following completion of two (2) sampling events, the licensee may apply in writing to have the sampling frequency varied to once every reporting period.

M2.23 Requirement to monitor weather

M2.3.1 For each monitoring point specified in the table below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

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Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Wind direction	degrees	Continuous	15 minute	AM-2 & AM-4
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4

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 2002 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

Note: Clause 18 (1), (1A) and (2) of the Protection of the Environment Operations (General) Regulation 1998 requires that monitoring of actual loads of assessable pollutants listed in L2.1 must be carried out in accordance with the testing method set out in the relevant load calculation protocol for the fee-based activity classification listed in condition A1.2.

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

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

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 Conditions M5.1 and M5.2 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 Not applicable.

M7 Records of Flare Operation and Process Upsets

M7.1 Detailed records of each use of the flare must be kept on site and made available to the EPA on request. Each record must include the flare start and stop time and the reason for its use.

M7.2 Detailed records of all process upsets and process start-ups and shutdowns must be kept. Each record must include the process start and stop time and the reason for each process upset.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

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.
A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before 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.

Period covered by Annual Return

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.

Deadline for Annual Return

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').

Notification where actual load can not be calculated

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.

Licensee must retain copy of Annual Return

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.

Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary

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.

Air Quality Monitoring Reports

R1.9.1 The results of air quality monitoring undertaken in accordance with the conditions of this licence must be provided to the EPA on a quarterly basis with the first air quality monitoring report due no later than 6 months from the date of issue of this licence.

R1.9.2 The licensee must submit the following information with the Annual Return:

- A comparison of data obtained from emissions monitoring to the emission limits in this licence and other relevant air quality criteria;

~~Results of the comprehensive odour audit required by Condition U2;~~

- Recommendations for the continuation or discontinuation of monitoring for pollutants which have not been detected~~.~~ or detected consistently at levels significantly below the licence and/or regulatory limits.

R1.10 Requirement to Notify of process Start-up, Shutdown and Upset

R1.10.1 The licensee must notify the EPA of any process start-up, process shut-down and/or process upset which results in the concentration of hydrogen sulfide, as measured by the continuous hydrogen sulfide monitoring system exceeding 15 parts per million for a period of 30 seconds or more. The notification must be made within 24 hours of any of these events. Notification may be made by facsimile to (02) 49086810 or by email to newcastlerequest@environment.nsw.gov.au.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable 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.

General conditions

G1 Copy of licence kept at the premises

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.

Pollution studies and reduction programs

U1 Post Commissioning Monitoring and Assessment

U1 Air Quality Impact Assessment and Mitigation Report

U1.1 Within nine (9) months of the date of commencement of scheduled activities at the premises, the licensee must submit an Operational Air and Noise Validation Report ("the Report") to the EPA's Regional Manager, Hunter.

The Report must:

- Be prepared by a suitably qualified and experienced person(s);
- Assess whether the facility is complying with the noise criteria specified in condition L6 of this licence;
- Identify what additional measures could be implemented to ensure compliance with the noise limits should non-compliances be identified;
- Include a revised Air Quality Impact Assessment of air quality impacts from the project 'as constructed' that is consistent with the limits in the project approval, and includes actual measured emissions;
- Confirm conclusions made in the documents:
  - "*Air Quality Impact Assessment – Hydrogenation Plant (Rutherford, NSW*" prepared by Transpacific Industries Pty Ltd and dated 2 May 2006; and
  - "*Report Air Impact Assessment Alternate Hydrogenation Plant (Rutherford NSW)*" prepared by Pacific Air and Environment and dated 7 July 2006;
  - and any subsequent air quality impact assessment prepared for the facility 'as constructed'.
- Include a complete source emissions monitoring program for the facility to validate compliance with the Protection of the Environment Operations (Clean Air) Amendment (Industrial and Commercial Activities and Plant) Regulation 2005 ("the Regulation") and to validate the emissions inventory contained within the document "*Air Quality Impact Assessment – Hydrogenation Plant (Rutherford NSW")* prepared by Transpacific Industries Pty Ltd and dated 2 May 2006 or any subsequent emissions inventory prepared for the facility 'as constructed'. A copy of the results and recommendations of the source emissions monitoring program must be included in the Report.
- Identify what additional measures could be implemented to ensure compliance with the Regulation and licence conditions should any non-compliance be detected; and
- Provide details of any complaints received relating to air quality generated by the project and action taken to respond to those complaints.

U2 Comprehensive Odour Audit

U2.1 The aim of this condition is to:

- *Ensure that the facility has been constructed and is operating as described in all documentation referenced in the Project Approval issued by the Department of Planning;*
- *ensure that the facility is performing adequately with regard to odour emissions; and*
- *to demonstrate that no offensive odours can occur at sensitive receivers.*

~~The licensee must complete a comprehensive odour audit of the premises that must include but need not be limited to the following:~~

~~Identify and list, within reason, every process, activity and substance stored or used at the premises that generates or has the potential to generate odours;~~

~~Benchmark each process and activity identified at (a) against comparable international best available technology and industry best management practice relating to the control of odour from that process and activity;~~

~~Identify and list, within reason, every actual and every potential source of offensive odour at the premises. This must include, within reason, all point, diffuse and fugitive sources;~~

U1.1 *The aim of this condition is to benchmark air emission control performance and demonstrate that the current emission control are performing to a level that achieves compliance with the current licence emission concentration limits and the EPA's air quality impact assessment criteria. Where current emission controls are found to be inadequate, this condition requires investigation and implementation of additional control measures that will ensure compliance with relevant criteria.*

1. The licensee must complete an air quality impact assessment and mitigation study ("the Study").

~~Identify for each odour sources identified at (c) the cause or causes of the odour;~~

2. The Study must be completed in strict accordance with the methodologies set out in the following documents or as otherwise approved of in writing by the EPA:

   a. ~~Quantify for each odour source identified at (c) the actual and potential nature, strength and duration of occurrence of the odour in accordance with the publication "*NSW DEC 2005* Approved Methods *and Guidance* for the Modelling and Assessments of Air Pollutants in New South Wales (NSW"; DEC, August 2005); and~~

   b. *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales* (NSW DEC, December 2006).

~~Model for each odour source identified at (c) (where appropriate) the impacts and potential impacts of the odour at all sensitive receptors in accordance with the publication "*NSW DEC 2005 Approved Methods and Guidance for the Modelling and Assessments of Air Pollutants in NSW*";~~

3. The Study must include:

~~If the odour impact assessment at f) identifies potential offensive odour at any sensitive receptor, the following must be undertaken:~~

   a. Identification of all emission sources of complex mixtures of odorous substances, speciated volatile organic compounds (e.g. individual air toxics and individual odorous substances), hydrogen sulphide, solid particles and sulphuric acid mist at the premises and their maximum air pollutant emission concentrations/rates determined by sampling in accordance with the methods detailed in 2b;

   b. Identification of all air pollution control equipment associated with the emission sources in 3a. The operational performance of each item of control equipment must be determined based on actual performance as determined in 3a. Performance of each item of equipment must be benchmarked against best management practice;

   c. Based on the results of 3a and 3b, a determination by the Licensee as to whether emissions of these air pollutants comply with the requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2002* ("the Regulation") and the licence.

If the emission concentrations do not comply with the requirements of the Regulation and the licence, the Licensee must advise the EPA Regional Manager Hunter immediately when the results become known;

d. A dispersion modelling study which predicts the ground level concentrations of air pollutants specified in 3a. Modelling must be conducted in strict accordance with the methods detailed in 2a and using the data collected in 3a. To remove any doubt, where TAPM meteorology is used to predict atmospheric dispersion from the site, on-site wind measurements must be incorporated into the TAPM model for assimilation. Emissions modelled must be based on maximum measured emission concentrations; and

e. A comparison of the ground level concentrations predicted by the model against the appropriate impact assessment criteria detailed in 2a. Ground level concentration predictions at both nearby industrial and residential receptors must be presented in the comparison. To remove any doubt, the appropriate criteria for odour and hydrogen sulphide to be adopted by the Study are:

   i. Odour – 2OU at residential receptors and 4 OU at industrial receptors; and

   ii. Hydrogen sulfide – 1.38 µg/m^3 at residential receptors and 2.76 µg/m^3 at industrial receptors.

f. A review of the current flare design and operation and comparison with the flare design approved by the EPA in a letter dated 7 December 2006.

~~identify all available options, within reason, to prevent the generation of offensive odour for each actual and potential odour sources identified at (c);~~

~~Where at (i) prevention is not possible, identify all available options, within reason, to minimise the generation of offensive odour for each actual and potential odour source identified at (c);~~

~~Describe, quantify and model (where appropriate) the likely environmental impacts of implementing each option identified at (i) and (ii);~~

~~State for each actual and potential odour source identified at (c) (where appropriate), the preferred option of the prevention or minimisation of the generation of offensive odour from that source;~~

4. Using the results from 3, if the premises does not comply with the relevant impact assessment criteria, emission concentration limits and the approved flare design, a technical review of all practical options for mitigating or controlling the emission concentration and rate of air pollutants and improving the flare design and operation must be completed and included in the Study. The technical review must include:

~~Review the adequacy of policies, procedures, standards, practices and training at the premises in relation to environmental performance and in particular odour management. Where any inadequacy is found to exist recommend options to address each inadequacy;~~

a. Qualitative evaluation and modelling where appropriate of the potential reduction in the emission concentration and rate and air quality impacts associated with each mitigation option;

b. A cost/benefit analysis of a range of air quality mitigation and flare design options must be completed;

c. Using the results of 3, 4a and 4b the Licensee must identify emission control and management practices that ensure that the relevant impact assessment criteria detailed in 2a above, the licence emission concentrations limits and the requirements of the *Protection of the Environment Operations (Clean Air) Regulation 2002* are met;

d. Detail a timetable to implement all necessary emission controls and flare modifications (as necessary);

e. Detail a timeframe and validation framework to demonstrate compliance following the implementation of emission controls from 4c and 4d; and

Details of the qualifications and experience of the consultant(s) undertaking the odour audit.

5. By no later than 1 October 2010, the Licensee must submit the findings of 3 and 4 to the EPA's Regional Manager, Hunter in a formal report that has been prepared in strict accordance with the requirements detailed in 2a.

Note:

The licensee must submit a Comprehensive Odour Audit Report which details If indicated as necessary by the findings of condition U1, it is the Comprehensive Odour Audit and which includes EPA's intention to require the licensee to complete all information as listed above with the Annual Return fornecessary works to ensure that, to the licence reporting period ending 22 May 2008.

U3 Groundwater Contamination Assessment

U3.1 Within six months of the date of issue of this licence, the licensee must complete the following groundwater contamination investigations and works which include, but need not be limited to, the followingmaximum extent possible:

An assessment of the potential for off-site migration of chemicals of potential concern (including Tetrachloroethene);

Identification, based on the activities carried out at the site, of suspected source locations of contamination. If suspected source locations are identified, an evaluation of the presence of dense non-aqueous phase liquids (DNPL's) trapped in or above lower permeability zones above the regional groundwater aquifer must be undertaken (note that care must be taken to ensure that the regional aquifer is not penetrated at suspected source locations);

Works to assess regional groundwater and determination of hydrogeological characteristics (such as flow and direction). Such works must include the installation of additional wells across the site to:

enable the groundwater flow direction to be determined
further investigate the lateral and vertical extent of groundwater contamination
enable more accurate falling head tests and/or a pump test to be undertaken; and
allow collection of soil samples within the water bearing zone.

Soil samples collected must be analysed for organic carbon content and cation exchange capacity to allow fate and transport modelling to assess the potential for adsorption and retardation of dissolved organic compounds;

An assessment of risk posed by the contamination and recommendations for appropriate management requirements;

The EPA must be provided with a copy of a report detailing the results of the above investigations **by no later than 30 May 2008.**

a) The gas exit velocity at Point 5 conforms to TM-1 (AS4323.1) such that the gas exit velocity at Point 5 is greater than 3m/s; and

b) The height of the stack at Point 5 is at least 2.5 times the height of nearby structures in accordance with the document "*Guideline for Determination of Good Engineering Practice Stack Height*" (Technical Support Document for the Stack Height Regulation), US EPA, EPA-450/4-80-023R, June 1985.

Special conditions

E1 Stack Air Emission PointsNot applicable.

E1.1 All stack air emission points on the premises must:

broadly conform to the general requirements of "Guideline for Determination of Good Engineering Practice Stack height (Technical Support Document for the Stack Height Regulation), US EPA, EPA-450/4-80-023R June 1985; and

be designed to accommodate and be built with sampling ports that conform with TM-1, *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*, DEC, August 2005.

Within 4 months from the date of issue of this licence, licensee must submit a report, prepared by a suitably qualified person, to the Regional Manager, Hunter PO Box 488G Newcastle 2300, which provides confirmation that all air stack emission points conform with the above requirements

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

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 1998
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 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
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 1998.
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 (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment 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 1998
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

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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 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*.
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 Mitchell Bennett

Environment Protection Authority

(By Delegation)

Date of this edition - 21-Aug-2009

End Notes

1	Licence varied by notice 1077211, issued on 20-Aug-2007, which came into effect on 20-Aug-2007.
2	Licence varied by notice 1079458, issued on 17-Dec-2007, which came into effect on 17-Dec-2007.
3	Licence varied by notice 1082567, issued on 06-Feb-2008, which came into effect on 06-Feb-2008.
4	Licence varied by notice 1084615, issued on 27-Jun-2008, which came into effect on 27-Jun-2008.
5	Licence transferred through application 145571, approved on 06-Aug-2008, which came into effect on 22-May-2008.
6	Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
7	Licence varied by notice 1093643, issued on 10-Dec-2008, which came into effect on 10-Dec-2008.
8	Licence varied by correction to Load Limits table, issued on 06-Jan-2009, which came into effect on 06-Jan-2009.
9	Licence varied by notice 1096580, issued on 08-Jan-2009, which came into effect on 08-Jan-2009.
10	Licence varied by change to fba for summer pollutants, issued on 22-Jan-2009, which came into effect on 22-Jan-2009.
11	Licence varied by notice 1102128, issued on 05-Aug-2009, which came into effect on 05-Aug-2009.
12	Licence varied by notice 1105326, issued on 21-Aug-2009, which came into effect on 21-Aug-2009.