

Environment Protection Licence



Licence - 13336

<u>Licence Details</u>	
Number:	13336
Anniversary Date:	25-October

<u>Licensee</u>
BARANGAROO DELIVERY AUTHORITY (BDA)
LEVEL 21 201 KENT STREET
SYDNEY NSW 2000

<u>Premises</u>
BARANGAROO
AND A PORTION OF HICKSON RD (NEAR TO 30-38 HICKSON RD)
MILLERS POINT NSW 2000

<u>Scheduled Activity</u>
N/A

<u>Fee Based Activity</u>	<u>Scale</u>
Other activities	Any activity

<u>Region</u>
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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:

BARANGAROO DELIVERY AUTHORITY (BDA)
LEVEL 21 201 KENT STREET
SYDNEY NSW 2000

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 development work listed below at the premises listed in A2:
Work that is designed to enable scheduled activities to be carried on at the premises once development consent is granted. In particular: preparation for large-scale land remediation and water treatment.

A1.2 The licensee must not carry on any scheduled activities until the scheduled development works are completed, except as elsewhere provided in this licence.

A1.3 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
N/A	Other activities	Any activity

A1.4 This licence regulates water pollution resulting from the activity/ies specified below carried out at the premises specified in A2.

Fee Based Activity	Scale
Other activities	Any activity

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
BARANGAROO
AND A PORTION OF HICKSON RD (NEAR TO 30-38 HICKSON RD)
MILLERS POINT
NSW 2000
LOT 5 DP 873158, LOT 11 DP 1065410, LOT 12 DP 1065410, PART LOT 101 DP 1204946, PART LOT 200 DP 1204948

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BARANGAROO AND A PORTION OF HICKSON RD (NEAR TO 30-38 HICKSON RD) MILLERS POINT NSW 2000
 PART LOT 101 DP1204946 (BARANGAROO CENTRAL),
 PART LOT 200 DP1204948 (BARANGAROO SOUTH),
 AND HICKSON ROAD DECLARATION AREA 3221, BEING THE PART OF HICKSON ROAD ADJACENT TO
 NUMBERS: 30-34 HICKSON ROAD (LOT 11 IN DP 1065410); 36 HICKSON ROAD (BEING LOT 5 IN DP 873158 AND LOT 12 IN DP 1065410); AND 38 HICKSON ROAD (SP72797) MILLERS POINT.

A3 Other activities

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

Ancillary Activity
Works associated with the Crown Sydney Hotel Resort
Works associated with the Perimeter Retention Wall works for Blocks 4 and 5
Works associated with the SISCO and SEPR Pilot Trials

Note:

Works approved under this licence have received planning approval under:

- a) MP10_0087 (SISCO and SEPR Pilot Trials and Proving Phase).
- b) SSD 5897 (Remediation & land forming works - Block 4).
- c) SSD 6533 (Block 5 Remediation and associated works).
- d) SSD 6957 (Crown Sydney Hotel Resort).

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.

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Air

EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
1	Discharge to air - Air quality monitoring	Discharge to air - Air quality monitoring	Exhaust stack serving the soil vapour extraction unit for the Hickson Road ISCO remediation trial - depicted on Figure 2 in the document titled "Hickson Road In-Situ Remediation" provided to the EPA on 2 November 2015.
2	Discharge to air - Air quality monitoring	Discharge to air - Air quality monitoring	Mobile vent (point source) serving the jet grout excavation enclosure depicted as Point 2 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
3	Discharge to air – Air quality monitoring	Discharge to air – Air quality monitoring	Vent (point source) serving the spoil management enclosure - depicted as Point 3 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
4	Ambient air monitoring		Barangaroo South Stage 1B northern site offices - depicted as Point 4 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
5	Ambient air monitoring		Eastern boundary of Barangaroo South Stage 1B, near 38 Hickson Road - depicted as Point 5 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
6	Ambient air monitoring		South-western boundary of Barangaroo South Stage 1B/ 1C - depicted as Point 6 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
12	Discharge to air - Air quality monitoring	Discharge to air - Air quality monitoring	Mobile vent (point source) serving the jet grout excavation enclosure depicted as Point 12 on the figure titled 'Environmental Monitoring and Discharge Locations' that forms part of the application dated 10 August 2016.

P1.2 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.

P1.3 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
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7	Discharge to waters	Discharge to waters	Discharge into stormwater pipeline to Darling Harbour outlet - depicted as Point 7 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
8	Discharge to waters	Discharge to waters	Discharge pipe installed through existing concrete slab - depicted as Point 8 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
9	Discharge to waters	Discharge to waters	Discharge into stormwater pipeline to Darling Harbour outlet - depicted as Point 9 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
10	Ambient water quality monitoring		North near-field turbidity monitoring location, downstream of discharge on ebb tide - depicted as Point 10 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".
11	Ambient water quality monitoring		South near-field turbidity monitoring location, downstream of discharge on flood tide - depicted as Point 11 on Figure 2 of the document titled "Perimeter Retention Wall – Blocks 4&5 EPL 13336 Variation Information (Feb 2016)".

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 Concentration limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table\ 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.

L2.2 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.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.

L2.4 Air Concentration Limits

POINT 1

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
volatile organic compounds as n-propane equivalent	milligrams per cubic metre	10	Dry, 273 K, 101.3 kPa		1 hour

POINT 2,12

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
volatile organic compounds as n-propane equivalent	milligrams per cubic metre	10	Dry, 273 K, 101.3 kPa		

POINT 3

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
volatile organic compounds as n-propane equivalent	milligrams per cubic metre	5	Dry, 273 K, 101.3 kPa		1 hour

L2.5 Water and/or Land Concentration Limits

POINT 7,8,9

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Acenaphthene	micrograms per litre				2
Acenaphthylene	micrograms per litre				2

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Ammonia	micrograms per litre	910
Anthracene	micrograms per litre	2
Arsenic	micrograms per litre	2.3
Benzene	micrograms per litre	500
Benzo(a)anthracene	micrograms per litre	2
Benzo(a)pyrene	micrograms per litre	2
Benzo(b)fluoranthene	micrograms per litre	2
Benzo(k)fluoranthene	micrograms per litre	2
Benzo[ghi]perylene	micrograms per litre	2
Cadmium	micrograms per litre	0.7
Chromium (trivalent)	micrograms per litre	27
Chromium (VI) Compounds	micrograms per litre	4.4
Chrysene	micrograms per litre	2
Copper	micrograms per litre	1.3
Cyanide	micrograms per litre	4
Dibenz[a,h]anthracene	micrograms per litre	2
Ethyl benzene	micrograms per litre	80
Fluoranthene	micrograms per litre	2
Fluorene	micrograms per litre	2
Indeno(1,2,3-cd)pyrene	micrograms per litre	2

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Lead	micrograms per litre	4.4
m+p-Xylene	micrograms per litre	75
Mercury	micrograms per litre	0.1
Naphthalene	micrograms per litre	50
Nickel	micrograms per litre	7
Oil and grease (Wet)	milligrams per litre	10
o-Xylene	micrograms per litre	350
pH	pH	6.5 - 8.5
Phenanthrene	micrograms per litre	2
Phenol	micrograms per litre	400
Pyrene	micrograms per litre	2
Toluene	micrograms per litre	180
Total suspended solids	milligrams per litre	50
TPH C10-C14 Fraction	micrograms per litre	50
TPH C15-C28 Fraction	micrograms per litre	100
TPH C29-C36 Fraction	micrograms per litre	50
TPH C6-C9 Fraction	micrograms per litre	20
Zinc	micrograms per litre	15

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POINT 10,11

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Turbidity	nephelometric turbidity units				63

L2.6 The concentration limit for turbidity for monitoring points 10 and 11 is only exceeded if:

- a) there have been 3 consecutive 15 minute interval readings above the criteria; and
- b) the exceedance is directly related to works or activities being undertaken at the premises .

Note: The VOC (as n-propane) concentration limit at Point 3 will be reviewed by the EPA after assessment of the Post Commissioning Air Monitoring Report for PRW required under Condition R4.3.

L3 Volume and mass limits

L3.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:

- a) liquids discharged to water; or;
 - b) solids or liquids applied to the area;
- must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of Measure	Volume/Mass Limit
7	kilolitres per day	691
8	kilolitres per day	4320
9	kilolitres per day	260

L4 Hours of operation

L4.1 Works or activities may only be undertaken at the premises:

Between 7:00 am and 6:00 pm, Mondays to Fridays;
 Between 7:00 am and 5:00 pm Saturdays; and
 At no time on Sundays or public holidays.

L4.2 Exceptions to approved hours of operation

a) Works and activities are permitted to be undertaken outside of the hours specified in Condition L4.1 for:

- i. the delivery of equipment and materials as requested by Police or other authorities for safety reasons;
- ii. emergency work to avoid the loss of lives, damage to property and/or to prevent environmental harm;

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- iii. operation of the enclosures to ensure odour is effectively controlled outside the approved hours of construction, including operation of the ventilation and air emissions control systems;
- iv. operation of the Water Treatment Plant, including dewatering to prevent flooding, treatment systems and discharge;
- v. operation of the air emission control systems to ensure air quality is effectively controlled outside the approved hours of construction;
- vi. works that are inaudible at any residential premises; and

b) Works and activities relating to operation of the SISCO and SEPR Trial may be undertaken between:

- i. 7:00 am and 7:00 pm Mondays to Fridays; and
- ii. 7:00 am and 6:00 pm on Saturdays.

L5 Potentially offensive odour

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.

- L5.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

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 All activities on the site must be undertaken with the objective of preventing visible emissions of dust beyond the boundary of the premises. Should such visible dust emissions occur at any time, the licensee

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must identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

O4 Waste management

- O4.1 The licensee must not cause, permit or allow any waste generated:
- a) Outside the premises to be received at the premises; and
 - b) On-site to be disposed of outside of the premises except as permitted by c) and d) below.
 - c) The licensee must assess, classify and manage any waste generated at the premises in accordance with the Waste Classification Guidelines 2014 prior to transporting the waste off site.
 - d) If waste is transported from the premises, the licensee must ensure that the waste is transported by a waste transporter authorised to transport such waste and is transported to a place that can lawfully accept that waste.

O5 Other operating conditions

- O5.1 Hickson Road ISCO Trial
- a) The stack servicing licence discharge point 1 must be installed and maintained at a height of not less than 4 metres above ground level.
 - b) When the stack servicing licence discharge point 1 is operating, the discharge velocity must be maintained at a minimum of 2 metres/second.

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

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

M2.2 Air Monitoring Requirements

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
volatile organic compounds as n-propane equivalent	milligrams per cubic metre	Continuous	CEM-8

POINT 2,4,5,6,12

Pollutant	Units of measure	Frequency	Sampling Method
Volatile organic compounds	milligrams per cubic metre	Daily	Other Approved Method 3

POINT 3

Pollutant	Units of measure	Frequency	Sampling Method
Dry gas density	kilograms per cubic metre	Special Frequency 4	TM-23
Moisture	percent	Special Frequency 4	TM-22
Molecular weight of stack gases	grams per gram mole	Special Frequency 4	TM-23
Oxygen (O ₂)	percent	Special Frequency 4	TM-25
Polycyclic aromatic hydrocarbons	milligrams per cubic metre	Special Frequency 4	OM-6
Solid Particles	milligrams per cubic metre	Special Frequency 4	TM-15
Temperature	degrees Celsius	Special Frequency 4	TM-2
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Special Frequency 4	Special Method 3
Velocity	metres per second	Special Frequency 4	TM-2
volatile organic compounds as n-propane equivalent	milligrams per cubic metre	Continuous	Special Method 2
Volumetric flowrate	cubic metres per second	Special Frequency 4	TM-2

POINT 4

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Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	AM-22

POINT 4,6

Pollutant	Units of measure	Frequency	Sampling Method
Lead	micrograms per cubic metre	Special Frequency 1	Other Approved Method 1
Polycyclic aromatic hydrocarbons	milligrams per cubic metre	Special Frequency 1	AM-15
Total Solid Particles	micrograms per cubic metre	Special Frequency 1	AM-15
Type 1 and Type 2 substances in aggregate	micrograms per cubic metre	Special Frequency 1	AM-15

POINT 5,6

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	Other Approved Method 2

M2.3 Water and/ or Land Monitoring Requirements

POINT 7,8,9

Pollutant	Units of measure	Frequency	Sampling Method
Acenaphthene	micrograms per litre	Special Frequency 2	Grab sample
Acenaphthylene	micrograms per litre	Special Frequency 2	Grab sample
Ammonia	micrograms per litre	Special Frequency 2	Grab sample
Anthracene	micrograms per litre	Special Frequency 2	Grab sample
Arsenic	micrograms per litre	Special Frequency 2	Grab sample
Benzene	micrograms per litre	Special Frequency 2	Grab sample
Benzo(a)anthracene	micrograms per litre	Special Frequency 2	Grab sample
Benzo(a)pyrene	micrograms per litre	Special Frequency 2	Grab sample
Benzo(b)fluoranthene	micrograms per litre	Special Frequency 2	Grab sample
Benzo(k)fluoranthene	micrograms per litre	Special Frequency 2	Grab sample
Benzo[ghi]perylene	micrograms per litre	Special Frequency 2	Grab sample
Cadmium	micrograms per litre	Special Frequency 2	Grab sample
Chromium (trivalent)	micrograms per litre	Special Frequency 2	Grab sample
Chromium (VI)	micrograms per litre	Special Frequency 2	Grab sample
Compounds			
Chrysene	micrograms per litre	Special Frequency 2	Grab sample
Conductivity	millisiemens per centimetre	Special Frequency 2	Grab sample

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Copper	micrograms per litre	Special Frequency 2	Grab sample
Cyanide	micrograms per litre	Special Frequency 2	Grab sample
Dibenz[a,h]anthracene	micrograms per litre	Special Frequency 2	Grab sample
Dissolved Oxygen	micrograms per litre	Special Frequency 2	Grab sample
Ethyl benzene	micrograms per litre	Special Frequency 2	Grab sample
Fluoranthene	micrograms per litre	Special Frequency 2	Grab sample
Fluorene	micrograms per litre	Special Frequency 2	Grab sample
Indeno(1,2,3-cd)pyrene	micrograms per litre	Special Frequency 2	Grab sample
Lead	micrograms per litre	Special Frequency 2	Grab sample
m+p-Xylene	micrograms per litre	Special Frequency 2	Grab sample
Mercury	micrograms per litre	Special Frequency 2	Grab sample
Naphthalene	micrograms per litre	Special Frequency 2	Grab sample
Nickel	micrograms per litre	Special Frequency 2	Grab sample
Oil and Grease	milligrams per litre	Special Frequency 2	Grab sample
o-Xylene	micrograms per litre	Special Frequency 2	Grab sample
PCBs	micrograms per litre	Special Frequency 2	Grab sample
pH	pH	Special Frequency 2	Grab sample
Phenanthrene	micrograms per litre	Special Frequency 2	Grab sample
Phenol	micrograms per litre	Special Frequency 2	Grab sample
Pyrene	micrograms per litre	Special Frequency 2	Grab sample
Toluene	micrograms per litre	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample
TPH C10-C14 Fraction	micrograms per litre	Special Frequency 2	Grab sample
TPH C15-C28 Fraction	micrograms per litre	Special Frequency 2	Grab sample
TPH C29-C36 Fraction	micrograms per litre	Special Frequency 2	Grab sample
TPH C6-C9 Fraction	micrograms per litre	Special Frequency 2	Grab sample
Turbidity	nephelometric turbidity units	Special Frequency 2	Grab sample
Zinc	micrograms per litre	Special Frequency 2	Grab sample

POINT 10,11

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	millisiemens per centimetre	Special Frequency 3	Special Method 1
pH	pH	Special Frequency 3	Special Method 1
Temperature	degrees Celsius	Special Frequency 3	Special Method 1
Turbidity	nephelometric turbidity units	Special Frequency 3	Special Method 1

M2.4 For the purposes of the tables above:

- Special Frequency 1 means: one 24 hour averaged sample every 6 days.
- Special Frequency 2 means:

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- i) Once prior to discharge during batch operation, up to 36 hours duration;
- ii) Once daily during intermittent continuous operation, up to 72 hours duration; and
- iii) Once daily for the first fourteen days of continuous operation, then weekly.
- c) Special Frequency 3 means: every 15 minutes.
- d) Special Frequency 4 means: one round of post commissioning monitoring and one round of validation monitoring. The validation monitoring must be undertaken during a period when highly odorous or contaminated material is being handled.
- e) Other Approved Method 1 means: either AM-11 or an alternative method to AM-11 for interim use that has been approved in writing by the EPA.
- f) Other Approved Method 2 means: Aeroqual Dust Sentry.
- g) Other Approved Method 3 means: PID.
- h) Special Method 1 means: Multi-probe analyser.
- i) Special Method 2 means: CEM-8, CEM-9 or CEM-10.
- j) Special Method 3 means: TM-12, TM-13 and TM-14.
- k) The selection of sampling positions for monitoring point 3 must comply with sampling method TM-1.

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

M4 Environmental monitoring

- M4.1 All noise and vibration monitoring must be done in accordance with the relevant Construction Noise and Vibration Management Plan unless otherwise required in writing by the EPA.

M5 Weather monitoring

- M5.1 At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units

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of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.

POINT 4

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Rainfall	AM-4	millimetres	1 hour	Continuous
Wind speed	AM-2 & AM-4	metres per second	15 minutes	Continuous
Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous
Sigma theta	AM-2 & AM-4	degrees Celsius	15 minutes	Continuous
Total Solar Radiation	AM-4	Watts per square metre	15 minutes	Continuous
Siting	AM-2 & AM-4	-	-	-

M6 Recording of pollution complaints

M6.1 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.

M6.2 The record must include details of the following:

- the date and time of the complaint;
- the method by which the complaint was made;
- any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- the nature of the complaint;
- the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- if no action was taken by the licensee, the reasons why no action was taken.

M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M6.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M7 Telephone complaints line

M7.1 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.

M7.2 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.

M7.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

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M8 Requirement to monitor volume or mass

M8.1 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 7

Frequency	Unit of Measure	Sampling Method
Daily	kilolitres per day	Continuously

POINT 8

Frequency	Unit of Measure	Sampling Method
Daily	kilolitres per day	Continuously

POINT 9

Frequency	Unit of Measure	Sampling Method
Daily	kilolitres per day	Continuously

M9 Other monitoring and recording conditions

M9.1 Additional Air Quality Monitoring

a) The licensee must undertake ambient monitoring for fine particulates and volatile organic compounds for the purpose of informing day to day reactive management of air emissions from the premises.

b) The monitoring referred to in a) above must be undertaken in addition to the monitoring required to be undertaken for points 4 and 6.

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.

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At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.
- 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.
- 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 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.
- R1.7 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.

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.

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

R2 Notification of environmental harm

- 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.

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.

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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.

R4 Other reporting conditions

R4.1 Ambient Water Quality Monitoring Reporting

- a) The licensee must submit to the EPA an Ambient Water Quality Monitoring Report one month after the first day of operations of the ambient water quality monitoring network and monthly thereafter, unless otherwise agreed in writing by the EPA.
- b) The Ambient Water Quality Monitoring Report must include:
 - i) all results for ambient water quality monitoring around the site;
 - ii) an interpretation of those results; and
 - iii) any relevant site management responses.

R4.2 Air Quality Reporting

- a) The licensee must submit to the EPA an Air Quality Monitoring Report one month after the first day of

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operations of the ambient air quality monitoring network and monthly thereafter, unless otherwise agreed in writing by the EPA.

b) The Air Quality Monitoring Report must:

- i) review all air monitoring data collected in compliance with the conditions of this licence and any Air Quality & Odour Management Plans;
- ii) provide an interpretation of those results; and
- iii) detail any relevant site management responses.

R4.3 Post Commissioning Air Monitoring Report for PRW

a) The licensee must submit to the EPA a Post Commissioning Air Emissions Report 7 days after the completion of validation testing from the point source serving the spoil management enclosure (EPL Point 3).

b) The Post Commissioning Air Emissions Report must outline air emissions data from Point 3, including:

- i) Analytical results for the post commissioning monitoring required under Condition M2.2;
- ii) Operational details for the time period in which monitoring was undertaken;
- iii) GAC bed size and residence time, calculated VOC loading into and out of GAC beds, expected change out frequency and the technical basis for trigger limits; and
- iv) Any other necessary information to convey to the EPA the potential for ongoing emissions to air of the compounds identified for analysis through sampling and subsequent analysis.

c) The Post Commissioning Air Emissions Report must assess the longer term suitability of the 5 mg/m³ VOC (as n-propane) concentration limit at Point 3 based on the post commissioning monitoring and the real time CEMs monitoring data.

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 Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.

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8 Special Conditions

E1 In-situ Chemical Oxidation Trial Hickson Road

E1.1 (i) For the purposes of the In-situ Chemical Oxidation (ISCO) Pilot Trial ("the trial") authorised by licence condition A1.4, the trial must be conducted in accordance with the document titled "Pilot Trial Work Plan & Trial Management Plan – Former Millers Point Gasworks Site – Hickson Road Declaration Area – Barangaroo South Precinct Sydney - 17 November 2015". ("the PTWP & TMP"). The soil and groundwater, soil vapour sampling and process and performance monitoring results must be carried out as specified in the PTWP & TMP.

(ii) A summary and interpretation of all monitoring activities and sampling results specified in the PTWP & TMP must be provided to the EPA on a weekly basis (or as otherwise agreed with the EPA). This summary must report against contingency triggers in the PTWP & TMP. The report must demonstrate that the management controls and procedures are sufficiently and accurately assessing the location of the injection front to determine plume movement and temperature. The report must include also any instances where triggers have been reached and a description of what contingencies were implemented.

(iii) Within 4 weeks of completion of the trial the licensee must prepare and submit to the EPA a detailed assessment report on the trial. The report must summarise all aspects of the trial including a commentary on the success or otherwise on the stated objectives. The report must be provided to the Manager Sydney Industry, Office of Environment and Heritage, PO Box 668, Parramatta NSW 2124.

Note: The summary and interpretation of sampling and monitoring results required in the condition (ii) above, may be submitted to the EPA by email.

E2 Water Treatment Plants

E2.1 WTP Management Plan

a) Prior to the operation of any new Water Treatment Plant (WTP) at the premises the licensee must prepare and provide to the EPA for comment a WTP Management Plan.

b) The WTP Management Plan must include but not be limited to:

- i) details of treatment processes and systems; and
- ii) details of the influents likely to be treated in the new WTP.

E2.2 WTP Commissioning Report

a) The licensee must submit to the EPA a WTP Commissioning Report within 60 days of the date of commissioning of any WTP

b) The WTP Commissioning Report must include but not be limited to details about plant performance when treating a representative range of influents encountered during the initial stage of the works.

c) The WTP Commissioning Report must be updated as works progress and as other influents are encountered at the site and directed to the WTP for treatment (for example contaminated groundwater,

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clean storm-water/surface water; contaminated storm-water/surface water; stockpile leachate etc).

d) The WTP Commissioning Report must be provided to an Authorised EPA officer on request.

E2.3 WTP Performance Report

a) The licensee must submit to the EPA a WTP Performance Report one month after the first day of operations of any WTP and monthly thereafter, unless otherwise agreed in writing by the EPA.

b) The WTP Performance Report must:

- i) review and compare the performance of the WTP against requirements of this licence, including discharge point concentration limits, discharge volumes, recycled water quantities and quality;
- ii) outline any circumstances that triggered additional monitoring;
- iii) include details about incidents and responses; and
- iv) include the results of visual inspections of water quality controls including silt curtains and any remedial action undertaken to ensure compliance with licence conditions including O1 and O2.

E3 Completed PRPs

E3.1

PRP Number	Description	Completed Date
U1	Provide Discharge Dilution Criteria Report and Revised Stormwater and Water Management Plan	June 2011

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
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 <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the 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 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 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 <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

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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 Stuart Clark

Environment Protection Authority

(By Delegation)

Date of this edition: 25-October-2010

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End Notes

- 1 Licence varied by notice 1123651, issued on 06-Jun-2011, which came into effect on 06-Jun-2011.
- 2 Licence varied by notice 1500535 issued on 13-Dec-2011
- 3 Licence varied by notice 1504504 issued on 04-Apr-2012
- 4 Licence varied by notice 1506483 issued on 12-Jul-2012
- 5 Licence varied by notice 1507552 issued on 28-Sep-2012
- 6 Licence varied by notice 1509476 issued on 15-Nov-2012
- 7 Licence varied by notice 1513809 issued on 20-May-2013
- 8 Licence varied by notice 1517436 issued on 05-Nov-2013
- 9 Licence varied by notice 1521198 issued on 23-Apr-2014
- 10 Licence varied by notice 1524433 issued on 28-Aug-2014
- 11 Licence varied by notice 1526485 issued on 20-Nov-2014
- 12 Licence varied by notice 1530261 issued on 29-Jul-2015
- 13 Licence varied by notice 1532710 issued on 12-Aug-2015
- 14 Licence varied by notice 1535321 issued on 19-Jan-2016
- 15 Licence varied by notice 1538840 issued on 18-Apr-2016
- 16 Licence varied by notice 1542250 issued on 08-Jul-2016
- 17 Licence varied by notice 1543545 issued on 19-Aug-2016