

# Environment Protection Licence



Licence - 2148

<b>Licence Details</b>	
Number:	2148
Anniversary Date:	01-July

<b>Licensee</b>
ORICA AUSTRALIA PTY LTD
16-20 BEAUCHAMP ROAD
MATRAVILLE NSW 2036

<b>Premises</b>
ORICA AUSTRALIA PTY LTD - BOTANY INDUSTRIAL PARK
16-20 BEAUCHAMP ROAD
MATRAVILLE NSW 2036

<b>Scheduled Activity</b>
Chemical storage
Contaminated groundwater treatment
Waste storage

<b>Fee Based Activity</b>	<b>Scale</b>
Contaminated groundwater treatment	Any annual handling capacity
General chemicals storage	> 5000-100000 kL storage capacity
Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Any listed waste type stored

<b>Region</b>
Metropolitan - Sydney Industry
Level 13, 10 Valentine Ave
PARRAMATTA NSW 2150
Phone: (02) 9995 5000
Fax: (02) 9995 6900
PO Box 668 PARRAMATTA
NSW 2124

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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:

<b>ORICA AUSTRALIA PTY LTD</b>
<b>16-20 BEAUCHAMP ROAD</b>
<b>MATRAVILLE NSW 2036</b>

subject to the conditions which follow.

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## 1 Administrative Conditions

### A1 What the licence authorises and regulates

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

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

Scheduled Activity	Fee Based Activity	Scale
Contaminated groundwater treatment	Contaminated groundwater treatment	Any annual handling capacity
Chemical storage	General chemicals storage	> 5000 - 100000 kL storage capacity
Waste storage	Waste storage - hazardous, restricted solid, liquid, clinical and related waste and asbestos waste	Any listed waste type stored

### A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
ORICA AUSTRALIA PTY LTD - BOTANY INDUSTRIAL PARK
16-20 BEAUCHAMP ROAD
MATRAVILLE
NSW 2036
LOT 2 DP 1016112 AND PART LOT 110 DP1204999.
THE PREMISES IS SHOWN WITHIN THE SHADED AREAS IN FIGURE 1: SITE LAYOUT, JOB NO: 51866, DATED 10 MARCH 2017, FILE NAME: 51866_01, INCLUDED IN THE FOLLOWING CONDITION.

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

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## A3 Information supplied to the EPA

- A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- 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
- 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*

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EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
9	Discharge to air Air emissions monitoring	Discharge to air Air emissions monitoring	Stack serving GTP labelled "Point 9 - Discharge to air" on drawing number B96283 Rev10 submitted to the EPA on 11 November 2013.
10	Parameter monitoring		Thermal oxidation unit labelled "Point 10 - Parameter monitoring temperature" on drawing number B96283 Rev10 submitted to the EPA on 11 November 2013.
12	Weather monitoring		Weather monitoring station labelled "Point 12 - Weather Monitoring" on drawing No B96283 Rev10 submitted to the EPA on 11 November 2013
13	Parameter monitoring		Pipe serving the GTP thermal oxidiser, labelled "Point 13 - Thermal Oxidiser Flow (Residence Time) Monitoring Point" on drawing number B96283Rev10 submitted to the EPA 11 November 2013.
26	Discharge to air. Air emissions monitoring	Discharge to air. Air emissions monitoring	Common stack from building housing HCB repackaging plant and new Store J
29	In-pipe monitoring	In-pipe monitoring	Store J interstage point between the two activated charcoal filters on extraction pipe 1.
30	In-pipe monitoring	In-pipe monitoring	Store J interstage point between the two activated charcoal filters on extraction pipe 2.
33	In-pipe monitoring		Store J interstage point between the two activated charcoal filters on the extraction pipe. (Note - this is the same as Point 29).
34	In-pipe monitoring		Store J interstage point between the two activated charcoal filters on the extraction pipe. (Note - this is the same as Point 30).
40	Discharge to air. Air emissions monitoring	Discharge to air. Air emissions monitoring	Stack from temporary enclosure of Store G/H.
41	In-line pipe monitoring	In-line pipe monitoring	Store G/H interstage point between the activated charcoal filters on the extraction pipe (former point 35).
42	In-line pipe monitoring	In-line pipe monitoring	Store G/H interstage point between the activated charcoal filters on the extraction pipe (former point 31).

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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14	Effluent quality monitoring and discharge to water	Effluent quality monitoring and discharge to water	Drain outlet serving the GTP labelled "Point 14 - Water Discharge Composition" on Drawing No B926284 Rev5, submitted to the EPA on 2 April 2015.
15	Effluent quality monitoring		Drain outlet serving the GTP labelled "Point 15 - Water Discharge Conductivity" on Drawing No B96284 Rev5, submitted to the EPA on 2 April 2015.
16	Effluent quality and volume monitoring		Drain outlet serving the GTP labelled "Point 16 - Water Discharge Temperature & Flow" on Drawing No B96284 Rev5, submitted to the EPA on 2 April 2015.

## 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 specified ranges.

L2.3 Air Concentration Limits

#### POINT 9

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Chlorine	milligrams per cubic metre	30	Dry 273K. 101.3kPa.	11% O <sub>2</sub> .	As per test method
Hydrogen chloride	milligrams per cubic metre	30	Dry 273K. 101.3kPa.	11% O <sub>2</sub>	As per test method
Nitrogen Oxides	milligrams per cubic metre	400	Dry 273K. 101.3kPa.	11% O <sub>2</sub>	As per test method

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Dioxins & Furans	nanograms per cubic metre	0.1 Note 2	I-TEQ, Dry 273K. 101.3kPa.	11% O2	As per test method
Carbon monoxide	milligrams per cubic metre	100	Dry 273K. 101.3kPa.	11% O2	Rolling one hour average
1,2-Dichloroethane	milligrams per cubic metre	8 Note 3	Dry 273K. 101.3kPa.	11% O2.	Rolling one hour average
Sulphur dioxide	milligrams per cubic metre	100	Dry 273K. 101.3kPa.	11% O2	As per test method
Vinyl chloride	parts per million	10	Dry 273K. 101.3kPa.	11% O2.	Rolling three hour average
Hydrogen Sulfide	milligrams per cubic metre	2	Dry 273K. 101.3kPa.	11% O2.	As per test method
Solid Particles	milligrams per cubic metre	20	Dry 273K. 101.3kPa.	11% O2.	As per test method
Volatile organic compounds	milligrams per cubic metre	10 Note 1	Dry 273K. 101.3kPa.	11% O2.	As per test method

## POINT 26

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Hexachloroethane	milligrams per cubic metre	9.7	Dry 273K. 101.3kPa.		
Volatile organic compounds	milligrams per cubic metre	10	Dry 273K. 101.3kPa.		
Hexachlorobenzene	milligrams per cubic metre	0.002	Dry 273K. 101.3kPa.		
Total solids	milligrams per cubic metre	10	Dry 273K. 101.3kPa.		
Hexachlorobutadiene	milligrams per cubic metre	0.21	Dry 273K. 101.3kPa.		

## POINT 29

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Tetrachloroethene (tetrachloroethylene)	milligrams per cubic metre	340			

## POINT 30

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
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Tetrachloroethene (tetrachloroethylene)	milligrams per cubic metre	340
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## POINT 33

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Tetrachloroethene (tetrachloroethylene)	milligrams per cubic metre	340			

## POINT 34

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Tetrachloroethene (tetrachloroethylene)	milligrams per cubic metre	340			

## POINT 40

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
Hexachlorobenzene	milligrams per cubic metre	0.002	Dry 273K 101.3kPa		
Hexachlorobutadiene	milligrams per cubic metre	0.21	Dry 273K 101.3kPa		
Hexachloroethane	milligrams per cubic metre	9.7	Dry 273K.101.3Kpa		
Total solids	milligrams per cubic metre	10	Dry 273K 101.3 kPa		
Volatile organic compounds	milligrams per cubic metre	10	Dry 273K.101.3kPa		

## POINT 41

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
1,2-Dichloroethane	milligrams per cubic metre	40	Dry 273K 101.3kPa		As per test method

## POINT 42

Pollutant	Units of measure	100 percentile concentration limit	Reference conditions	Oxygen correction	Averaging period
1,2-Dichloroethane	milligrams per cubic metre	40	Dry 273K. 101.3kPa.		As per test method

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Note: Note 1: For the purpose of the table(s) above, expressed as total organic carbon. This should be determined by summing all individual components.

Note 2: For the purposes of the table(s) above, Polychlorinated-dibenzo-p-dioxins (PCDD) and polychlorinated-dibenzofurans (PCDF) as 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD) equivalent calculated in accordance with the procedures included in Clause 40 of the POEO (Clean Air) Regulation 2010.

Note 3: For the purposes of the table(s) above, expressed as total organic carbon.

## L2.4 Water and/or Land Concentration Limits

### POINT 14

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
1,2-Dichloroethane	milligrams per litre				1.9
Arsenic	milligrams per litre				0.013
Benzene	milligrams per litre				0.95
Biochemical oxygen demand	milligrams per litre				10
Cadmium	milligrams per litre				0.001
Carbon tetrachloride	milligrams per litre				0.24
Chloroform	milligrams per litre				0.37
Chromium (total)	milligrams per litre				0.01
Copper	milligrams per litre				0.01
Iron	milligrams per litre				0.3
Lead	milligrams per litre				0.0034
Manganese	milligrams per litre				1.9

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Mercury	milligrams per litre	0.0005
NH3-N	milligrams per litre	1.35
Nickel	milligrams per litre	0.011
Nitrogen (total)	milligrams per litre	1.95
pH	pH	6.5-8.5
Phosphorus (total)	milligrams per litre	0.1
Reactive Phosphorus	milligrams per litre	0.05
Tetrachloroethene (tetrachloroethylene)	milligrams per litre	0.07
Toluene	milligrams per litre	0.18
Total residual chlorine	milligrams per litre	0.1
Trichloroethene (Trichloroethylene)	milligrams per litre	0.33
Turbidity	nephelometric turbidity units	10
Vinyl chloride	milligrams per litre	0.1
Zinc	milligrams per litre	0.01

## POINT 16

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile concentration limit
Temperature	degrees Celsius				10-30

L2.5 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.

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## L2.6 Thermal Oxidiser Lower Limits

For each monitoring/discharge point or utilisation area specified in the tables below (by point number), the parameter must be equal to or greater than the lower limits specified for that parameter in that table.

Point No.	Parameter	Units of measure	Lower Limit	Averaging Period
10	Temperature	Celcius	875	Instantaneous
13	Residence time	s	2	Instantaneous

L2.7 Whenever a combustion failure occurs in the thermal oxidiser, both the Air Stripping Unit and the Thermal Oxidiser must be shut down and all emissions must cease as soon as safely possible, but in no case later than 10 minutes after the start of the failure.

## L2.8 Exemptions from concentration limits for Point 9 and temperature limit for Point 10

The concentration limits specified for Point 9 (above) and temperature limit for Point 10 (above) do not apply during the following periods:

- a) a start-up period – that is, while the thermal oxidiser is being brought up to normal operation following a period of inactivity; or
- b) a shutdown period – that is, while the thermal oxidiser is being taken out of service from normal operation to inactivity.

Note: While the concentration limits specified for Point 9 (above) do not apply, the licensee is subject to the requirements of section 128 (2) of the Protection of the Environment Operations Act in relation to the prevention and minimisation of air pollution.

Note: That only uncontaminated off-gas feed is processed by the thermal oxidiser when the temperature at the thermal oxidiser unit (Point 10) is below 875°C.

## 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
15	kilolitres per day	13500

## L4 Waste

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- L4.1 The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled "Waste" and meeting the definition, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" in the table below.

Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled "Other Limits" in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
D120	Mercury; mercury compounds			
NA	General or Specific exempted waste			NA
NA	Waste			NA

- L4.2 The licensee is permitted to receive and treat extracted groundwater, the substances therein, and associated free phase contaminants originating from Orica's (formerly ICI Australia) activities at the Botany Industrial Park (BIP). This includes but is not limited to groundwater from:

1. The BIP, primary and secondary hydraulic containment lines;
2. Environmental investigation, monitoring and remediation activities conducted by, or on behalf of, Orica within areas impacted by Orica / ICI Australia's historic activities within the Groundwater Extraction Exclusion Area (GEEA); and
3. Short-term third party dewatering activities (for construction, pipe repairs, etc.) within the GEEA, in instances in which those waters have been affected by contaminants associated with Orica/ICI Australia's historic BIP operations.

For the purposes of licensing and the liquid waste levy, this material is deemed to have been generated onsite.

## L5 Noise limits

- L5.1 **For the operation of plant and equipment located at Botany Industrial Park (BIP) premises the following conditions L5.2 to L5.10 inclusively apply:**

- L5.2 Noise emissions emanating from all active Plants in the BIP premises, including loading and unloading of material in or above the premises and when determined as a sound level contribution, shall not exceed the following amenity LAeq criteria when measured or computed at any point within one metre of the nearest boundary of any residence in the vicinity of the premises, using the "FAST" response on the sound level meter.

Time of Day	LAeq
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Day	65
Evening	55
Night	50

- L5.3 The intrusive noise criterion for all active plants in the BIP shall be that the LAeq15 minute noise levels shall not exceed the amenity LAeq noise levels by more than 5 dB(A) when measured or computed at any point within one metre of the nearest boundary of any residence in the vicinity of the premises, using the "FAST" response on the sound level meter.
- L5.4 Each existing BIP Plant shall ensure that new or replacement equipment is selected and/or installed so that no increase in noise emissions is thereby created when measured or computed at any point within one metre of the nearest boundary of any residence in the vicinity of the premises, using the "FAST" response on the sound level meter.
- L5.5 A report for all BIP Licences (L7494 Huntsman Corporation Australia Pty Ltd; L 2148 Orica Australia Pty Ltd; L10000 Qenos Pty Ltd and L20547 Chemicals Australia Operations Pty Ltd) demonstrating compliance with the noise conditions listed at Condition L5.1 to L5.3 must be appended to the Annual Return for Qenos L10000.
- L5.6 For the purpose of Condition L5.1, L5.2 and L5.3:
- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays,
  - Evening is defined as the period from 6pm to 10pm, and
  - Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.
- L5.7 Noise from the premises is to be measured at the most affected point on or within the residential boundary to determine compliance with the LAeq(15 minute) noise limits in condition L5.2.
- Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.
- The modification factors presented in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise level where applicable.
- L5.8 The noise emission limits identified in condition L5.2 apply under meteorological conditions of:
- wind speeds up to 3 m/s at 10 metres above ground level; or
  - temperature inversion conditions of up to 3 degreesC /100m and wind speeds up to 2m/s at 10 metres above ground level.
- L5.9 Activities at the premises, other than construction work, that meet the noise goal provided in L5.2 may be conducted on a continuous basis.



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L5.10 The following activities may be carried out at the premises outside the hours specified in conditions L5.6:

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

## L6 Hours of operation

L6.1 All construction work at the premises must only be conducted between 7:00am to 6:00pm Monday to Friday, 8:00am to 1:00pm Saturdays, with no construction activities on Sundays or Public Holidays. Construction is permitted any time if it is not audible at the nearest affected receivers. Audible means that it can be heard by a person at the nearest affected receivers.

## 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 Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O3.2 Loaded trucks must be covered at all times, except during loading and unloading of material.

### O4 Waste management

O4.1 The licensee must ensure that waste identified for recycling is stored separately from other waste.

O4.2 The licensee must manage any asbestos or asbestos-contaminated materials that may be uncovered

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during the construction, commissioning and operation of all activities undertaken at the premises strictly in accordance with the requirements under the Protection of the Environment Operations (Waste) Regulation 2005 and any guidelines or requirements issued by the EPA in relation to those materials.

- O4.3 The licensee must ensure that any waste received and/or generated at the premises is assessed and classified in accordance with the EPA Waste Classification Guidelines as in force from time to time.

## O5 Other operating conditions

- O5.1 The licensee must not cause, permit or allow the emission of offensive odour beyond the boundary of the premises.
- O5.2 No condition of this licence identifies a potentially offensive odour for the purposes of Section 129 of the Protection of the Environment Operations Act 1997.
- O5.3 The licensee must ensure that only uncontaminated off-gas feed is sent to the thermal oxidiser when the temperature at the thermal oxidiser unit (Point 10) is below 875°C, subject to L2.8.
- O5.4 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.
- O5.5 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.

## 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:
  - in a legible form, or in a form that can readily be reduced to a legible form;
  - kept for at least 4 years after the monitoring or event to which they relate took place; and
  - 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:
  - the date(s) on which the sample was taken;
  - the time(s) at which the sample was collected;
  - the point at which the sample was taken; and
  - 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 9

Pollutant	Units of measure	Frequency	Sampling Method
1,2-Dichloroethane	milligrams per cubic metre	Special Frequency 13	CEM-10
Carbon monoxide	milligrams per cubic metre	Special Frequency 13	CEM-4
Chlorine	milligrams per cubic metre	Yearly	TM-7 & TM-8
Dioxins & Furans	nanograms per cubic metre	Yearly	TM-18
Dry gas density	kilograms per cubic metre	Quarterly	TM-23
Hydrogen chloride	milligrams per cubic metre	Yearly	TM-8
Hydrogen Sulfide	milligrams per normalised cubic metre	Yearly	TM-5
Moisture content	percent	Quarterly	TM-22
Molecular weight of stack gases	grams per gram mole	Quarterly	TM-23
Nitrogen Oxides	milligrams per cubic metre	Quarterly	TM-11
Oxygen (O <sub>2</sub> )	percent	Special Frequency 13	CEM-3
Solid Particles	milligrams per cubic metre	Yearly	TM-15
Sulphur dioxide	milligrams per cubic metre	Yearly	TM-4
Temperature	degrees Celsius	Quarterly	TM-2
Velocity	metres per second	Quarterly	TM-2
Vinyl chloride	parts per million	Special Frequency 13	CEM-10
Volatile organic compounds	milligrams per cubic metre	Quarterly	TM-34
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

## POINT 10

Pollutant	Units of measure	Frequency	Sampling Method
Temperature	degrees Celsius	Continuous	TM-2

## POINT 13

Pollutant	Units of measure	Frequency	Sampling Method
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

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## POINT 26

Pollutant	Units of measure	Frequency	Sampling Method
Hexachlorobenzene	milligrams per cubic metre	Special Frequency 14	TM-34
Hexachlorobutadiene	milligrams per cubic metre	Special Frequency 14	TM-34
Hexachloroethane	milligrams per cubic metre	Special Frequency 14	TM-34
Total solids	milligrams per cubic metre	Special Frequency 14	TM-15
Volatile organic compounds	milligrams per cubic metre	Special Frequency 14	TM-34

## POINT 29,30

Pollutant	Units of measure	Frequency	Sampling Method
Tetrachloroethene (tetrachloroethylene)	milligrams per cubic metre	Special Frequency 14	Special Method 6

## POINT 33,34

Pollutant	Units of measure	Frequency	Sampling Method
Tetrachloroethene (tetrachloroethylene)	milligrams per cubic metre	Special Frequency 14	TM-34

## POINT 40

Pollutant	Units of measure	Frequency	Sampling Method
Hexachlorobenzene	milligrams per cubic metre	Special Frequency 14	TM-34
Hexachlorobutadiene	milligrams per cubic metre	Special Frequency 14	TM-34
Hexachloroethane	milligrams per cubic metre	Special Frequency 14	TM-34
Total solids	milligrams per cubic metre	Special Frequency 14	TM-15
Volatile organic compounds	milligrams per cubic metre	Special Frequency 14	TM-34

## POINT 41

Pollutant	Units of measure	Frequency	Sampling Method
1,2-Dichloroethane	milligrams per cubic metre	Special Frequency 14	Special Method 6

## POINT 42

Pollutant	Units of measure	Frequency	Sampling Method
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1,2-Dichloroethane	milligrams per cubic metre	Special Frequency 14	TM-34
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## M2.3 Water and/ or Land Monitoring Requirements

### POINT 14

Pollutant	Units of measure	Frequency	Sampling Method
1,2-Dichloroethane	milligrams per litre	Monthly during discharge	Grab sample
Arsenic	milligrams per litre	Monthly during discharge	Grab sample
Benzene	milligrams per litre	Monthly during discharge	Grab sample
Biochemical oxygen demand	milligrams per litre	Monthly during discharge	Grab sample
Cadmium	milligrams per litre	Monthly during discharge	Grab sample
Carbon tetrachloride	milligrams per litre	Monthly during discharge	Grab sample
Chloroform	milligrams per litre	Monthly during discharge	Grab sample
Chromium (total)	milligrams per litre	Monthly during discharge	Grab sample
Copper	milligrams per litre	Monthly during discharge	Grab sample
Iron	milligrams per litre	Monthly during discharge	Grab sample
Lead	milligrams per litre	Monthly during discharge	Grab sample
Manganese	milligrams per litre	Monthly during discharge	Grab sample
Mercury	milligrams per litre	Monthly during discharge	Grab sample
NH3-N	milligrams per litre	Monthly during discharge	Grab sample
Nickel	milligrams per litre	Monthly during discharge	Grab sample
Nitrogen (ammonia)	milligrams per litre	Monthly during discharge	Grab sample
Nitrogen (total)	milligrams per litre	Monthly during discharge	Grab sample
pH	pH	Monthly during discharge	Grab sample
Phosphorus (total)	milligrams per litre	Monthly during discharge	Grab sample
Reactive Phosphorus	milligrams per litre	Monthly during discharge	Grab sample

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Tetrachloroethene (tetrachloroethylene)	milligrams per litre	Monthly during discharge	Grab sample
Toluene	milligrams per litre	Monthly during discharge	Grab sample
Total residual chlorine	milligrams per litre	Monthly during discharge	Grab sample
Trichloroethene (Trichloroethylene)	milligrams per litre	Monthly during discharge	Grab sample
Turbidity	nephelometric turbidity units	Monthly during discharge	Grab sample
Vinyl chloride	milligrams per litre	Monthly during discharge	Grab sample
Zinc	milligrams per litre	Monthly during discharge	Grab sample

## POINT 15

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Continuous during discharge	In line instrumentation

## POINT 16

Pollutant	Units of measure	Frequency	Sampling Method
Temperature	degrees Celsius	Continuous during discharge	In line instrumentation

M2.4 For the purpose of the table(s) above:

Minor variations to those sampling methods as specified in the EPA's 'Approved Methods for the Sampling and Analysis of Air Pollutants in NSW' and 'Approved Methods for the Sampling and Analysis of Water Pollutants in NSW', as approved by the National Association of Testing Authorities' (NATA) endorsement of Laboratories, are deemed to be appropriate.

**Special Frequency 13** is defined as monitoring continuously at all times except when the online emission monitoring system is taken off-line for service, repair, maintenance and/or calibration purposes only. During this off-line period, monitoring must be carried out on a daily basis for 1-hour composite samples in accordance with the EPA's Approved Methods. In these exceptional circumstances, the licensee may use the in-house laboratory for analysis of these samples.

**Special Frequency 14** requires monitoring to be undertaken at the frequencies specified below, but only when repackaging is being undertaken in the HCB repackaging store to which the monitoring requirement applies.

The monitoring frequencies for Points 26, 29, 30, 33, 34, 40, 41 and 42 are defined as follows:

a) Points 26, 33 and 34 (Store J) is defined as:

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- once during the first week of every plant restart following a shutdown period of greater than 3 months and every quarter thereafter and;
- if restart monitoring coincides with scheduled quarterly monitoring, then single scheduled monitoring event fulfils both restart and quarterly test requirements.

b) Points 29 and 30 (Store J) is defined as continuous operation of the monitoring apparatus, with operator checks and results recorded two times daily;

c) Points 40 and 41 (Store G & H) is defined as:

- once during the first week of every plant restart following a shutdown period of greater than 3 months and every quarter thereafter and;
- if restart monitoring coincides with scheduled quarterly monitoring, then single scheduled monitoring event fulfils both restart and quarterly test requirements.

d) Point 42 (Store G & H) is defined as continuous operation of the monitoring apparatus with operator checks and results recorded two times daily.

**Special Method 6** means: CEM-8, CEM-9 or CEM-10 (as defined in Approved Methods for the Sampling and Analysis of Air Pollutants in NSW. EPA 2005), or a continuous monitoring method otherwise approved by the EPA.

## M3 Testing methods - concentration limits

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

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

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

## M4 Weather monitoring

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M4.1 For each monitoring point specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the parameter 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:

## POINT 12

Parameter	Units of measure	Averaging period	Frequency	Sampling Method
Wind speed @ 10 m	m/s	1 hour	Continuously	AM-2 & AM-4
Wind direction @ 10 m	degrees	1 hour	Continuously	AM-2 & AM-4
Sigma Theta @ 10 m	degrees	1 hour	Continuously	AM-2 & AM-4
Additional Requirements				
Siting				AM-1 & AM-4
Measurement				AM-1 & AM-4

Note: Due to technical and topographical difficulties associated with the installation of the weather monitoring station, the licensee is required to align as close as possible to the sampling methods included in this condition for point 12.

## M5 Recording of pollution complaints

M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M5.2 The record must include details of the following:

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

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

## M6 Telephone complaints line

M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of



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receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

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

## M7 Requirement to monitor volume or mass

M7.1 For each discharge point or utilisation area specified below, the licensee must monitor:

- a) the volume of liquids discharged to water or applied to the area;
- b) the mass of solids applied to the area;
- c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

### POINT 16

Frequency	Unit of Measure	Sampling Method
Continuous during discharge	kilolitres per day	Magnetic flow meter

## 6 Reporting Conditions

### R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

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

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

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

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

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and

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b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

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

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

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

R1.6 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.

## R2 Notification of environmental harm

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

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

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

## R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

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

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

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- R3.3 The request may require a report which includes any or all of the following information:
- a) the cause, time and duration of the event;
  - b) the type, volume and concentration of every pollutant discharged as a result of the event;
  - c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
  - d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
  - e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
  - f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
  - g) any other relevant matters.
- R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

## 7 General Conditions

### G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

### G2 Signage

- G2.1 Each monitoring and discharge point, located within the premises as defined in this licence, must be clearly marked by a sign that indicates the EPA point identification number used in this licence and be located as close as practical to the point.

### G3 Other general conditions

#### G3.1 Completed Programs

Program	Description	Completed Date
PRP 1 - HCBd delineation	HCBd delineation. ground water protection , control of off site contamination	23-April-2004

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PRP 2 - Weekly Remediation Progress Reporting	Weekly progress reporting on remediation of HCB, ground water protection and control of off-site contamination.	01-December-2004
PRP 3 - Submission of Progress Report at 6-Monthly	submission of progress report at 6-monthly interval or until completion of car park remediation describing ongoing monitoring to confirm cell integrity for HCB at car park. ground water protection, control of off-site contamination	30-March-2011
PRP 4 - Proposals for future works	Proposals for future works, ground water protection and control of off-site contamination	01-December-2004
PRP 5 - Ammonia Concentration Reduction Strategy	Preparation and submission of an ammonia concentration reduction strategy - to reduce ammonia concentrations in treated discharge from the Groundwater Treatment Plant (Point 11) into the Perry St Canal system.	30-August-2007
PRP 6 - Dilutions Determination	Determination of the range of dilutions likely at Point 11, Groundwater Treatment Plant discharge point into Perry Street Canal.	06-May-2008
PRP 7 - Ammonia Reduction Progress Report	Submission of a progress report to detail the progress of works to achieve longer term reduction in ammonia discharge concentration at Point 11, so as to achieve protection of aquatic ecosystems in Perry St Canal (95% spp protection).	29-February-2008
PRP 8 - Ammonia Reduction PRP Progress Report	Submission of a report to confirm progress of works proposed in report titled 'ammonia concentration reduction pollution reduction program. 30 august 2007'.	03-July-2008
PRP 9 - Ammonia Concentration Reduction Strategy	Submission of a report to confirm progress of works proposed in report titled 'Ammonia Concentration Reduction PRP. 30 Aug 07' submitted to DECC on 30 Aug 07.	01-July-2009
PRP 10 - Treated Water Temperature Reduction	Reduce the temperature of treated effluent from the GTP prior to discharge to waters to achieve better protection of aquatic ecosystems in Perry Street Canal.	31-December-2009
PRP 11 - Stormwater Pollution Reduction Program	Continuous improvement of BIP stormwater systems. Consistent with Qenos and Huntsman licence requirement.	31-March-2011

## 8 Special Conditions

### E1 Financial assurance

E1.1 The objective of this condition is to secure or guarantee funding for or towards the ongoing operating costs of the Groundwater Treatment Plant and associated groundwater collection infrastructure.

#### E1.2 Unconditional and irrevocable bank guarantee

A financial assurance, in favour of the EPA, in the form of an unconditional and irrevocable bank

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guarantee dated 7 February 2007 for the amount of fourteen million four hundred thousand dollars (\$14,400,000) must be maintained for or towards the ongoing operating costs of the Groundwater Treatment Plant (GTP) and associated groundwater collection infrastructure and thereafter until such time as the EPA is satisfied the premises are environmentally secure.

Note: \$14.4 million is 20% of the net present value of the outstanding provision (\$72 million) of the long term operating costs identified in the licensee's submission on the appropriate form or amount of the financial assurance, dated 30 September 2006.

## E1.3 Requirement to increase the amount of the financial assurance

The licensee must increase the amount of financial assurance in accordance with the following schedule based on the financial position of Orica Limited as determined by its Standard & Poors credit rating:

- i) While a Standard & Poors credit rating remains at BBB+ or above, the bank guarantee required will be \$14.4 million; and
- ii) If the Standard & Poors credit rating falls to BBB the bank guarantee required will be \$35 million; and
- iii) If the Standard & Poors credit rating below BBB the bank guarantee required will be \$72 million.

## E1.4 Requirement to report credit rating in each annual return

The licensee must include in each licence annual return evidence of Orica Limited's credit rating for the whole period of the licence year.

## E1.5 Requirement to report any changes in credit rating

The licensee must advise the EPA as soon as practical and in any event within five days of receiving advice from Standard & Poors of any change to the credit rating of Orica Limited.

Note: Orica Australia Pty Ltd is the licensee and Orica Limited is the parent company. The credit rating relates to Orica Limited.

## E1.6 Varying the magnitude of the financial assurance

a) The EPA reserves the right to vary the magnitude of the financial assurance at any time depending upon any reassessment of possible cost(s) of rehabilitation of the premises or any other reason which the EPA deems to be appropriate and reasonable to ensure environmental security.

Note: The EPA will review the above arrangement every three years including consideration of Consumer Price Index (CPI) adjustments, or more frequently if considered necessary by the EPA or if requested by the licensee, in light of the remaining works required to complete the remediation.

b) The EPA will only draw on the Financial Assurance to fund or recover the reasonable costs in carrying out, or directing or supervising the carrying out by another person, of any work or program, including the likely costs and expenses in directing and supervising the carrying out of the work or program, to meet the requirements of the licence relating to the Groundwater Treatment Plant and associated infrastructure where in the opinion of the EPA the licensee has failed to meet these requirements.

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## E1.7 Requirement to submit a review every three years

The licensee must provide the EPA with a review of the outstanding capital and operating costs for the Groundwater Treatment Plant and associated groundwater collection infrastructure **every three years commencing 5 February 2010**.

## E1.8 Requirement to advise of changes to deed of cross guarantee

The Licensee must advise the EPA in advance if it proposes to change and as soon as possible if it does change its deed of cross guarantee lodged with the Australian Securities and Investment Commission, whereby financial liabilities are shared across the Orica group of companies.

## E1.9 Requirement to advise of any changes which may affect ability to fund

The licensee must notify the EPA of any proposed corporate restructure, scheme of arrangement or appointment of an external administrator that will or may directly or indirectly affect the licensee's short or long term ability to fund the operation of the Groundwater Treatment Plant and associated groundwater collection infrastructure.

## E2 GTP SPECIAL CONDITIONS

### E2.1 The objective of this condition is:

To conduct a series on ongoing independent audits to validate the predictions contained in the Environmental Impact Statement (EIS) submitted to the EPA on 15 November 2004 and compliance with this licence, and to the extent required by any other approval, compliance with those approval conditions relating to the project;

To conduct engineering audits to ensure the performance of the plant will not deteriorate in the longer term; and

To identify remedial measures that can be implemented in the event an audit shows a discrepancy between actual and predicted performance.

This condition comprises of the Engineering Audit.

#### General Requirement

The licensee must undertake comprehensive and independent audits of the works undertaken in accordance with the EIS.

### E2.2 ENGINEERING AUDIT

#### General requirement

The licensee must make arrangements for, and bear the full cost of, an independent auditor to undertake engineering audits of the groundwater treatment plant and associated plant and equipment (including all

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control systems) to ensure it is maintained in a proper and efficient condition and operated in a proper and efficient manner with respect to its environmental and safety capability and performance.

Matters to be addressed in the audits must include but not be limited to;

- (a) Review of the frequency of inspections and maintenance programs to ensure they are effective in detecting actual or potential changes in the environmental and safety performance;
- (b) Review of procedures for detecting changes to the equipment which could impact on performance, including corrosion and wear; and
- (c) Review of results of internal inspections of all equipment, using video techniques where appropriate.

The licensee must consult with the EPA in the selection of the selection of the auditor.

The engineering audits must generate a report for submission to the EPA, NSW Office of Water, Sydney Water Corporation, Bayside Council, Orica Botany Liaison Committee and be available for public inspection on request.

The report must be submitted with each Annual Return

- At the end of every 5th reporting period, for the first 15 years of operation of the groundwater treatment plant (ie September 2012, September 2017 and September 2022); and then
- Every 2nd reporting period in which the plant remains in operation (ie September 2024 and then every two years thereafter).

The EPA may require the licensee to undertake works to address the findings or recommendations presented in the Report as a requirement of this licence. Any such works shall be completed within such time as the EPA may agree.

## **E3 INDEPENDENT MONITORING COMMITTEE**

- E3.1 The licensee must service an Independent Monitoring Committee with technical and community representatives relating to the Groundwater Treatment Plant and its operation. The licensee must provide monitoring information and reports and consult with this Committee as required by the relevant conditions of this licence.

Note: The Independent Monitoring Committee will be serviced by the licensees Orica Botany Liaison Committee.

## **E4 Hexachlorobenzene (HCB) Waste Repackaging Plant Special Conditions**

### **E4.1 Fugitive Emissions**

The licensee must design, construct, operate and maintain ventilation systems for the buildings in which the operation of the HCB waste repackaging lines is to occur so that the pressure within the building lies

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below atmospheric pressure at all times.

## E4.2 Concentration Limits

HCB concentration limit have been established. Note: The licensee provided information regarding breakthrough limits for Points 29 and 30 in correspondence dated 4 July 2008.

## E4.3 Shutdown Requirements

a) If the break-through limit at monitoring/discharge points 29 or 30 is exceeded after completion of commissioning, the HCB repackaging facility must shutdown as soon as practical after the exceedance is reported (twice daily checks are undertaken during operation). The licensee must only restart the HCB repackaging facility after the carbon bed is replaced with a new or regenerated activated carbon bed. Replacement carbon is not required in the event that the exceedance is found to be a technical error and is unjustified.

b) If any concentration limit described in condition L2.3 at monitoring/discharge point 26 is exceeded after completion of commissioning, the HCB repackaging facility must shutdown on receipt of the relevant monitoring data. The licensee can only restart the HCB repackaging facility after receiving written approval from the EPA.

## E4.4 Repackaging Process Trials Plan

N/A - Trials complete - condition now redundant.

## E4.5 Notification Requirements

If on receipt of a certificate of laboratory analysis, the laboratory analysis results demonstrate that the concentration of any discharge parameter has exceeded a limit specified in condition L2.3 for any of the monitoring / discharge Points 26, 29, 30, 33, 34, 40, 41 or 42 then the licensee must notify the EPA within 24 hours of receipt of the certificate.

## E4.6 Waste Generation and Management

This Environment Protection Licence does not permit the removal of hexachlorobenzene HCB waste from the premises unless and until the necessary separate approvals are obtained by the licensee for an ultimate destruction / disposal location for these wastes.

HCB waste means the scheduled chemical wastes that contains fifty milligrams per kilogram or more of HCB occurring in or on the Premises, or having migrated from or conveyed from the Premises.

Drums previously used for HCB storage that have demonstrated a concentration of less than two mg/kg can be recycled.

## E5 Post Remediation CPWE Groundwater Monitoring Program

E5.1 The licensee must carry out a groundwater monitoring event by no later than Friday 26 May 2017.

a) The groundwater monitoring must be completed using the following wells: WF50\_S, WF93\_S,



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WG93\_I, WF93\_D, WG96\_S, WG96\_I, WG96\_D, WG200\_S, WG200\_I, WG200\_D, WG220\_S, WG220\_I, WG220\_D, WG243\_S, WG243\_I, WG250\_S, WG251\_S, WG49, BP74\_6, BP74\_18 and WG115.

b) The chemicals to be analysed in the groundwater monitoring program are:

- VCHCs (carbon tetrachloride, chloroform, methylene chloride, chloromethane, pentachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1-dichloroethane, 1,2-dichloroethane, chloroethane, tetrachloroethene, trichloroethene, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, vinyl chloride)
- MAHs (benzene, ethyl benzene, toluene, xylenes, styrene, propyl benzene, trimethylbenzenes)
- HCBd (low level concentration reporting).

Monitoring wells WG250\_S, WG251\_S, WG49, BP74\_6, BP74\_18 and WG115 will have a reduced analytical suite in accordance with the Golder Associates, *Technical Memorandum Former Car Park Waste Encapsulation – Groundwater Monitoring Program*, dated 6 March 2017.

c) The licensee must assess all the groundwater concentration data to date for an indication of trends. The licensee must use methods that include but are not limited to the guidance provided in CRC Care Technical Report 15

d) The licensee must submit a report by no later than Friday 1 September 2017 of the groundwater monitoring event that presents the new and old data, interpretation of the contaminant trends, a consideration of the migration rates of the contaminants to identified receptors and an overall commentary on the effectiveness of the remediation work to date and recommendation if residual risks from the contaminants still need to be addressed.

e) The groundwater monitoring program and reporting requirements must be in accordance with the Golder Associates, *Technical Memorandum Former Car Park Waste Encapsulation – Groundwater Monitoring Program*, dated 6 March 2017.

## E6 Summary of Special Conditions - Completed and Ongoing

### E6.1 Summary of Special Conditions - Completed and Ongoing

Special Condition	Description	Completed Date
	Timetable for Remediation of Car Park Waste and Impacted Materials	CPWE Redundant now reproduced in EPL 13263
	Progress reporting on remediation works to remove the source of HCBd and associated compounds.	Redundant now reproduced in EPL 13263
	Ongoing monitoring to confirm the integrity of the Car Park Waste Encapsulation.	Redundant now reproduced in EPL 13263
	Completion reporting	Redundant now reproduced in EPL 13263

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Independent Auditor to conduct annual Audits and Reviews	Ongoing
Independent Monitoring Committee	Ongoing
Financial Assurance for ongoing costs of the Groundwater Treatment Plant established 31 January 2007.	Ongoing
Hexachlorobenzene (HCB) Waste Repackaging Plant.	Ongoing
Repacking Process Trials Plan	Most recent plan completed 2007. No further plans required while repackaging plant activities are suspended.
Groundwater Injection and Recovery	Completed March 2011 - condition now redundant
Bioaugmentation Trial	Completed October 2010 - condition now redundant.
Finalisation requirements of the Car Park Waste Encapsulation (CPWE) project	2014

# Environment Protection Licence



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## Dictionary

### General Dictionary

<b>3DGM [in relation to a concentration limit]</b>	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
<b>Act</b>	Means the Protection of the Environment Operations Act 1997
<b>activity</b>	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
<b>actual load</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>AM</b>	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> .
<b>AMG</b>	Australian Map Grid
<b>anniversary date</b>	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.
<b>annual return</b>	Is defined in R1.1
<b>Approved Methods Publication</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>assessable pollutants</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>BOD</b>	Means biochemical oxygen demand
<b>CEM</b>	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> .
<b>COD</b>	Means chemical oxygen demand
<b>composite sample</b>	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.
<b>cond.</b>	Means conductivity
<b>environment</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>environment protection legislation</b>	Has the same meaning as in the Protection of the Environment Administration Act 1991
<b>EPA</b>	Means Environment Protection Authority of New South Wales.
<b>fee-based activity classification</b>	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
<b>general solid waste (non-putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

# Environment Protection Licence



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<b>flow weighted composite sample</b>	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
<b>general solid waste (putrescible)</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>grab sample</b>	Means a single sample taken at a point at a single time
<b>hazardous waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>licensee</b>	Means the licence holder described at the front of this licence
<b>load calculation protocol</b>	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
<b>local authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>material harm</b>	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
<b>MBAS</b>	Means methylene blue active substances
<b>Minister</b>	Means the Minister administering the Protection of the Environment Operations Act 1997
<b>mobile plant</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>motor vehicle</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>O&amp;G</b>	Means oil and grease
<b>percentile [in relation to a concentration limit of a sample]</b>	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.
<b>plant</b>	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
<b>pollution of waters [or water pollution]</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>premises</b>	Means the premises described in condition A2.1
<b>public authority</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>regional office</b>	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
<b>reporting period</b>	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.
<b>restricted solid waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>scheduled activity</b>	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
<b>special waste</b>	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
<b>TM</b>	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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<b>TSP</b>	Means total suspended particles
<b>TSS</b>	Means total suspended solids
<b>Type 1 substance</b>	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
<b>Type 2 substance</b>	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
<b>utilisation area</b>	Means any area shown as a utilisation area on a map submitted with the application for this licence
<b>waste</b>	Has the same meaning as in the Protection of the Environment Operations Act 1997
<b>waste type</b>	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Mr Mark Gifford

Environment Protection Authority

(By Delegation)

Date of this edition: 29-June-2000

# Environment Protection Licence



Licence - 2148

## End Notes

- 1 Licence varied by notice 1000723, issued on 01-Aug-2000, which came into effect on 22-Aug-2000.
- 2 Licence varied by 010937 (ALaN) s.58 notice, issued on 01-Sep-2000, which came into effect on 26-Sep-2000.
- 3 Licence varied by notice 1008660, issued on 27-Jul-2001, which came into effect on 21-Aug-2001.
- 4 Licence varied by notice 1014464, issued on 15-Jan-2003, which came into effect on 09-Feb-2003.
- 5 Licence varied by notice 1025431, issued on 24-Dec-2003, which came into effect on 18-Jan-2004.
- 6 Licence varied by notice 1035261, issued on 30-Apr-2004, which came into effect on 30-Apr-2004.
- 7 Licence varied by notice 1040183, issued on 07-Sep-2004, which came into effect on 07-Sep-2004.
- 8 Licence varied by notice 1041498, issued on 26-Oct-2004, which came into effect on 27-Oct-2004.
- 9 Licence varied by notice 1041954, issued on 03-Nov-2004, which came into effect on 03-Nov-2004.
- 10 Licence varied by notice 1043560, issued on 14-Feb-2005, which came into effect on 22-Feb-2005.
- 11 Licence varied by notice 1048337, issued on 23-Aug-2005, which came into effect on 17-Sep-2005.
- 12 Licence varied by notice 1052073, issued on 14-Nov-2005, which came into effect on 25-Nov-2005.
- 13 Licence varied by notice 1060389, issued on 12-May-2006, which came into effect on 12-May-2006.
- 14 Licence varied by notice 1060540, issued on 22-May-2006, which came into effect on 22-May-2006.
- 15 Licence varied by notice 1061917, issued on 10-Jul-2006, which came into effect on 10-Jul-2006.
- 16 Licence varied by updating references to the Clean Air Reg, issued on 25-Jul-2006, which came into effect on 25-Jul-2006.
- 17 Licence varied by notice 1063885, issued on 11-Aug-2006, which came into effect on 11-Aug-2006.

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| 18 | Licence varied by notice 1067354, issued on 30-Nov-2006, which came into effect on 30-Nov-2006.                  |
| 19 | Licence varied by notice 1068717, issued on 24-Jan-2007, which came into effect on 24-Jan-2007.                  |
| 20 | Licence varied by notice 1069198, issued on 30-Jan-2007, which came into effect on 30-Jan-2007.                  |
| 21 | Licence varied by notice 1072335, issued on 13-Jun-2007, which came into effect on 13-Jun-2007.                  |
| 22 | Licence varied by notice 1074666, issued on 02-Jul-2007, which came into effect on 02-Jul-2007.                  |
| 23 | Licence varied by notice 1075713, issued on 10-Jul-2007, which came into effect on 10-Jul-2007.                  |
| 24 | Licence varied by repair to Annual Return Archive, issued on 17-Jul-2007, which came into effect on 17-Jul-2007. |
| 25 | Licence varied by notice 1076456, issued on 01-Aug-2007, which came into effect on 01-Aug-2007.                  |
| 26 | Licence varied by notice 1077124, issued on 17-Aug-2007, which came into effect on 17-Aug-2007.                  |
| 27 | Licence varied by notice 1079428, issued on 15-Nov-2007, which came into effect on 15-Nov-2007.                  |
| 28 | Licence varied by notice 1080326, issued on 28-Nov-2007, which came into effect on 28-Nov-2007.                  |
| 29 | Licence varied by notice 1082555, issued on 05-Feb-2008, which came into effect on 05-Feb-2008.                  |
| 30 | Licence varied by notice 1084923, issued on 29-Apr-2008, which came into effect on 29-Apr-2008.                  |
| 31 | Licence varied by notice 1085288, issued on 19-Jun-2008, which came into effect on 19-Jun-2008.                  |
| 32 | Licence varied by notice 1089856, issued on 01-Jul-2008, which came into effect on 01-Jul-2008.                  |
| 33 | Licence varied by notice 1090610, issued on 20-Aug-2008, which came into effect on 20-Aug-2008.                  |
| 34 | Licence varied by notice 1091819, issued on 12-Sep-2008, which came into effect on 12-Sep-2008.                  |
| 35 | Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date> |
| 36 | Licence varied by notice 1093630, issued on 12-Dec-2008, which came into effect on 12-Dec-2008.                  |

# Environment Protection Licence



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| 37 | Licence varied by notice 1095981, issued on 06-Jan-2009, which came into effect on 06-Jan-2009.                        |
| 38 | Licence varied by notice 1098432, issued on 22-Apr-2009, which came into effect on 22-Apr-2009.                        |
| 39 | Licence varied by notice 1100329, issued on 10-Jun-2009, which came into effect on 10-Jun-2009.                        |
| 40 | Licence varied by notice 1103282, issued on 10-Jul-2009, which came into effect on 10-Jul-2009.                        |
| 41 | Licence varied by notice 1106600, issued on 10-Dec-2009, which came into effect on 10-Dec-2009.                        |
| 42 | Licence varied by notice 1110616, issued on 29-Jan-2010, which came into effect on 29-Jan-2010.                        |
| 43 | Licence varied by correction to scheduled activity name, issued on 22-Dec-2010, which came into effect on 22-Dec-2010. |
| 44 | Licence varied by notice 1123216, issued on 30-Mar-2011, which came into effect on 30-Mar-2011.                        |
| 45 | Licence varied by notice 1127420, issued on 10-May-2011, which came into effect on 10-May-2011.                        |
| 46 | Licence varied by notice 1500849 issued on 21-Dec-2011   |
| 47 | Licence varied by notice 1504087 issued on 18-Jun-2012   |
| 48 | Licence varied by notice 1513857 issued on 12-Jun-2013   |
| 49 | Licence varied by notice 1515198 issued on 07-Aug-2013   |
| 50 | Licence varied by notice 1517395 issued on 21-Nov-2013   |
| 51 | Licence varied by notice 1518994 issued on 23-Dec-2013   |
| 52 | Licence varied by notice 1521640 issued on 15-May-2014   |
| 53 | Licence varied by notice 1522321 issued on 28-May-2014   |
| 54 | Licence varied by notice 1523352 issued on 16-Jul-2014   |
| 55 | Licence varied by notice 1525678 issued on 18-Nov-2014   |
| 56 | Licence varied by notice 1526956 issued on 16-Dec-2014   |
| 57 | Licence varied by notice 1527833 issued on 19-Feb-2015   |
| 58 | Licence varied by notice 1530074 issued on 13-Jul-2015   |
| 59 | Licence varied by notice 1533000 issued on 15-Sep-2015   |
| 60 | Licence varied by notice 1535074 issued on 17-Dec-2015   |



# Environment Protection Licence



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61	Licence varied by notice	1538853 issued on 18-Mar-2016
62	Licence varied by notice	1539750 issued on 12-Apr-2016
63	Licence varied by notice	1543426 issued on 13-Oct-2016
64	Licence varied by notice	1549144 issued on 10-Apr-2017
65	Licence fee period changed by notice	1551351 on 19-Apr-2017
66	Licence fee period changed by notice	1552285 on 30-Jun-2017