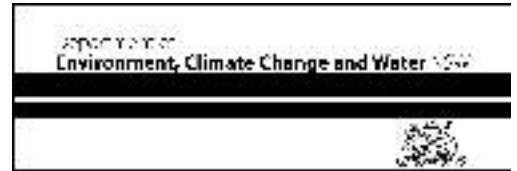


Environment Protection Licence

Licence - 13263



Licence Details

Number:	13263
Anniversary Date:	27-May
Review Due Date:	27-May-2015

Licensee

ORICA AUSTRALIA PTY LTD
 16-20 BEAUCHAMP ROAD
 MATRAVILLE NSW 2036

Licence Type

Premises

Premises

Car Park Encapsulation and Direct Thermal Desorption Plant
 Corish Circle
 BANKSMEADOW NSW 2019

Scheduled Activity

Contaminated soil treatment

Fee Based Activity

Contaminated soil treatment

Scale

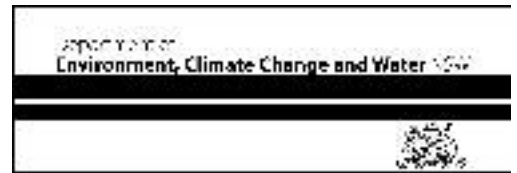
0 - All (T)

Region

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

Environment Protection Licence

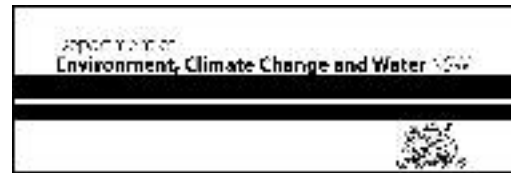
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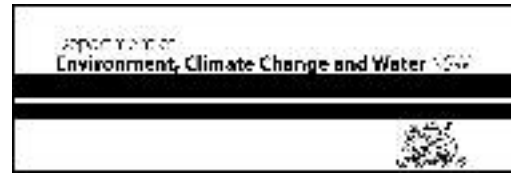
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Information about this licence

Dictionary

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

Responsibilities of licensee

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

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

Variation of licence conditions

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

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

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

Duration of licence

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

Licence review

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

Fees and annual return to be sent to the EPA

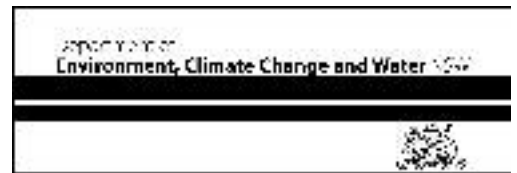
For each licence fee period you must pay:

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

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

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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:

ORICA AUSTRALIA PTY LTD
16-20 BEAUCHAMP ROAD
MATRAVILLE NSW 2036

subject to the conditions which follow.

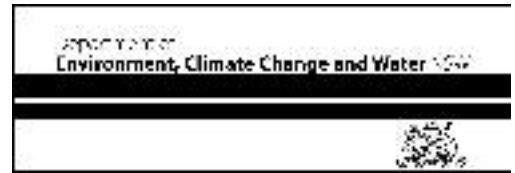
1 Administrative conditions

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.

There are 6 stages to the scheduled development works of which the following stages are authorised by this licence.

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- Stage #1** Date of Commencement
- Stage #2** Construction and Site Establishment Works
- Stage #3** DTD Plant Commissioning and Proof of Performance (CPoP) Trials
- Stage #4** Commercial Operations (Excavation and Treatment)
- Stage #5** Decommissioning and Demobilisation
- Stage #6** Reinstatement of CPWE site

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

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

Scheduled Activity
Contaminated soil treatment

Fee Based Activity	Scale
Contaminated soil treatment	0 - All (T)

A1.3 Not applicable.

A1.4 The licensee must not carry on any scheduled activities until the scheduled development works are completed, except as elsewhere provided in this licence.

A1.5 Condition A1.4 does not apply to this licence as some scheduled development works will continue to be undertaken after the time at which some scheduled activities are to be commenced.

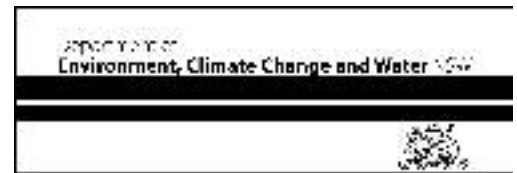
A1.6 The Scheduled Development Works/Scheduled Activity at the premises are divided into six stages. This Environment Protection Licence is only valid for the stages stated in this condition.

The six distinct stages that will span for the entirety of this licence are:

Stage 1 Date of Commencement	Defined as the first day of the commencement of any site establishment works.
Stage 2 Construction and Site Establishment Works	Construction of buildings, plant and facilities including: <ul style="list-style-type: none"> • Site establishment; • The Excavation Soil Building (ESB) and associated emission control system; • The Water Treatment Plant; • The Feed Soil Building (FSB) and associated emission control system; • The Directly-heated Thermal Desorption (DTD) Plant and adjacent

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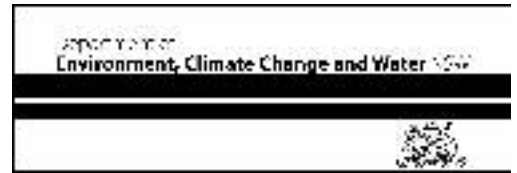
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	<p>sealed and bunded area;</p> <ul style="list-style-type: none"> • Hardstand areas, internal haul roads, site offices, stores, work sheds, temporary site sheds, ablation blocks and decontamination units; and • Excavation, stockpiling, classification, preparation and transportation of contaminated soil for the purpose of Stage 3.
<p>Stage 3 DTD Plant Commissioning and Proof of Performance trials</p>	<p>Commissioning trials</p> <ul style="list-style-type: none"> • These trials involve the work required to test the performance of all major process components including emission control systems using no soil, clean soils and then contaminated soils. <p>Proof of Performance test</p> <ul style="list-style-type: none"> • This test involves the work to prove the DTD plant's ability to meet all EPA performance and emission criteria. <p>Both the commissioning trials and the Proof of Performance test must be undertaken in accordance with detailed plans that must be approved by the EPA prior to work commencing and must demonstrate compliance with the project approval and Environment Protection Licence conditions.</p>
<p>Stage 4 Commercial Operations (Excavation and Treatment)</p>	<ul style="list-style-type: none"> • Excavation within the ESB over 3 stages, including sequential construction of the ESB as excavation works progress and deconstruction of completed stages; • Coarse screening of excavated material within the ESB to remove oversized materials; • Transportation of contaminated soil in covered trucks from the ESB to the FSB along internal haulage roads; • Further screening, drying and testing of contaminated material within the FSB; • Feeding of contaminated soil from the FSB into the DTD plant; • Treatment of contaminated soil in the DTD plant; • Validation testing of treated material and soils underlying and around the CPWE; • Supplementary Proof of Performance trials (if required); • Stockpiling of treated soil; and • Reinstatement of materials back into the excavation.
<p>Stage 5 Decommissioning and demobilisation</p>	<p>Decommissioning and decontamination of site buildings, plant and equipment and removal from site.</p>
<p>Stage 6 Reinstatement of CPWE site</p>	<p>Reinstatement of the CPWE with treated and validated soil material and stabilisation with turf.</p>

- A1.7 The licensee must only undertake works as defined under Date of Commencement (Stage 1) and Construction and Site Establishment Works (Stage 2) of the scheduled development until condition O12 Technology Assessment of this licence has been completed.
- A1.8 The licensee must only undertake works as defined under Construction and Site Establishment Works (Stage 2), and DTD Plant Commissioning Trials and the Proof of Performance test (Stage 3) of the scheduled development works until all aspects of Conditions E1 Commissioning Plan and E2 Proof of Performance Plan of this licence have been completed. The licensee must submit the reports, as required in this Licence, before the licensee can proceed to the Commercial Operations (Excavation and Treatment) (Stage 4).

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Operation of the DTD plant will cease after the Commissioning Trials until the Proof of Performance Test is ready to commence, however, consideration will be given to reduced rate operations during the period between the completion of the runs required for the Proof of Performance Test and receipt and approval of the report detailing the results of the Proof of Performance Test.

A1.9 Except as expressly provided by these conditions, the works and activities must be carried out in accordance with the proposal contained in:

- a) the Major Project Application No. 06-0197, lodged under Part 3A of the Environmental Planning and Assessment Act with the Department of Planning on 21 July 2006;
- b) Environmental Assessment – Remediation of Car Park Waste Encapsulation, Botany Industrial Park prepared by HLA-Envirosciences Pty Ltd dated July 2007;
- c) the revised Air Quality Impact Assessment prepared by Pacific Air Environment Pty Ltd dated 14 December 2007;
- d) the Final Amended Remedial Action Plan prepared by AECOM and submitted to the Department of Planning on 8 May 2009;
- e) the Human Health Impact Assessment prepared by URS Australia Pty Ltd dated 30 November 2007;
- f) the Submissions Report prepared by HLA-Envirosciences Pty Ltd dated 26 September 2007; and
- g) all additional information provided to the EPA in relation to the development

Note: Where any of the above documents have multiple versions and/or where any inconsistency between versions arises, the most recent document applies to the extent of any inconsistency.

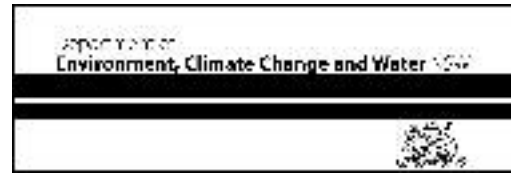
A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
Car Park Encapsulation and Direct Thermal Desorption Plant
Corish Circle
BANKSMEADOW
NSW
2019
PT LOT 11 DP 1039919, LOT 4 DP 1016112, PT LOT 9 DP 1016112, PT LOT 10 DP 1039919

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A3 Other activities

A3.1 Not applicable.

A4 Information supplied to the EPA

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

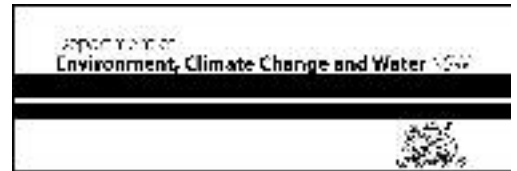
In this condition the reference to "the licence application" includes a reference to:

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

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

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

*Air*

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
1	Air emission monitoring Discharge to air	Air emission monitoring Discharge to air	Exhaust stack serving the Directly-heated Thermal Desorption Plant as shown in Appendix A of the Dep of Planning's Project Approval dated 12/11/09 and titled "Site Plans - Fig 1: CPWE site and land to be used for remediation activities"
2	Air emission monitoring		Thermal Oxidiser serving the Directly-heated Thermal Desorption Plant as shown in Appendix A of the Dep of Planning's Project Approval dated 12/11/09 and titled "Site Plans - Fig 1: CPWE site and land to be used for remediation activities"
3	Air emission monitoring Discharge to air	Air emission monitoring Discharge to air	Emission Control System serving the Excavation Soil Building as shown in Appendix A of the Dep of Planning's Project Approval dated 12/11/09 and titled "Site Plans - Fig 1: CPWE site and land to be used for remediation activities"
4	Air emission monitoring Discharge to air	Air emission monitoring Discharge to air	Emission Control System serving the Feed Soil Building as shown in Appendix A of the Dep of Planning's Project Approval dated 12/11/09 and titled "Site Plans - Fig 1: CPWE site and land to be used for remediation activities"

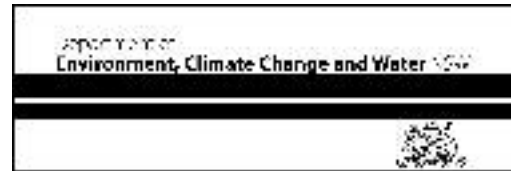
P1.2 Not applicable.

P1.3 Not applicable.

3 Limit conditions

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L1 Pollution of waters

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

L2 Load limits

L2.1 Not applicable.

L2.2 Not applicable.

L3 Concentration limits

L3.1 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.

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

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

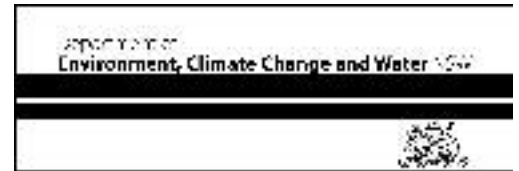
Air

POINT 1

Pollutant	Units of measure	100 percentile concentration limit
Cadmium	milligrams per cubic metre	0.02
Chlorine	milligrams per cubic metre	200
Mercury	milligrams per cubic metre	See Note 1
Nitrogen Oxides	milligrams per cubic metre	350
Volatile organic compounds	milligrams per cubic metre	20
Dioxins & Furans	nanograms per cubic metre	0.1
Hydrogen chloride	milligrams per cubic metre	100
Solid Particles	milligrams per cubic metre	25
Carbon monoxide	milligrams per cubic metre	125
Hydrogen fluoride	milligrams per cubic metre	35
Sulfuric acid mist and sulfur trioxide (as SO ₃)	milligrams per cubic metre	75
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	See Note 1

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POINT 3

Pollutant	Units of measure	100 percentile concentration limit
Cadmium	milligrams per cubic metre	0.1
Mercury	milligrams per cubic metre	0.1
Volatile organic compounds	milligrams per cubic metre	See Note 2
Solid Particles	milligrams per cubic metre	10
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	0.5

POINT 4

Pollutant	Units of measure	100 percentile concentration limit
Cadmium	milligrams per cubic metre	0.1
Mercury	milligrams per cubic metre	0.1
Volatile organic compounds	milligrams per cubic metre	See Note 2
Solid Particles	milligrams per cubic metre	10
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	0.5

L3.4 The emission limits detailed in Condition L3.3 will be reviewed following Commissioning and Proof of Performance Trials.

For the purposes of those emission limits:

- i) volatile organic compounds (VOCs) are to be n-propane equivalent;
- ii) the reference conditions for all pollutants in those tables, except for Dioxins and Furans are dry, 273 K, 101.3 kPa; and
- iii) the reference conditions for Dioxins and Furans must be as specified in the *Protection of the Environment Operations (Clean Air) Regulation 2002*.

Note 1:

- Mercury and Type 1 and Type 2 substances in aggregate limits to be determined following the Proof of Performance Tests; and
- The oxygen correction for Point 1 will be determined following Commissioning trials and the Proof of Performance Tests. The licensee must determine an oxygen correction factor, to be approved by EPA, which reflects the operation of the equipment.

Note 2:

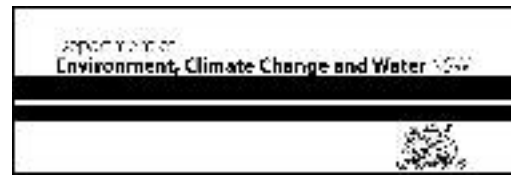
- VOC concentration limits for the ESB stack (Point 3) and the FSB stack (Point 4) to be determined once the emission control systems are operating.

L3.5 The licensee must develop a site-specific concentration limit for emissions of VOCs from discharge Points 3 and 4. The Licensee must apply for a licence variation to remove the "See Note 2" reference from the licence and inclusion of the new concentration limit. This emission limit must reflect proper and efficient operation of the emission control systems associated with the ESB and FSB.

Combustion parameters

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- L3.6 For each monitoring/discharge point or utilisation area specified in the table below (by point number), the parameter must be equal to or greater than the limit specified for that parameter in the table:

Point 2

Pollutant	Units of measurement	Lower limit	Averaging period
Residence time	Seconds	2	Instantaneous
Temperature	°C	980	Hourly rolling

Note: The limits for residence time and temperature may be reviewed pending the results of the Commissioning trials and the Proof of Performance Test.

- L3.7 The Direct Thermal Desorption Plant must be operated to achieve a destruction and removal efficiency of 99.9999% for (contaminants of concern TBA).

Note: EPA expects that the DTD plant is designed and operated as far as practicable to achieve the above destruction efficiency having regard to analytical limitations.

L4 Volume and mass limits

- L4.1 Not applicable.

L5 Waste

- L5.1 Not applicable.

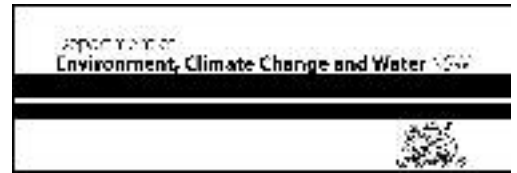
L6 Noise Limits

- L6.1 Noise emissions emanating from all activities at 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 (15 minutes)
Day	65
Evening	55
Night	50

- L6.2 The intrusive noise criterion for all activities at the premises shall be that the LAeq (15 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.

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L6.3 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 L6.1.

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.

L6.4 The noise emission limits identified in condition L6.1 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°C/100m and wind speeds up to 2m/s at 10 metres above ground level.

L6.5 For the purpose of Condition L6.1:

- 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

L7 Potentially offensive odour

L7.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

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

L8 Polychlorinated Biphenyls (PCBs) Scheduled Chemical Waste, Dioxins and Furans

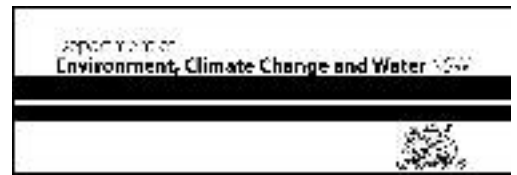
L8.1 The licensee must comply with the conditions as specified in this licence or where no specific conditions are outlined in this licence, the licensee must comply with the Chemical Control Order applicable to each type of waste (either PCB's or Scheduled Chemical Wastes or Dioxins and Furans) made under the *Environmentally Hazardous Chemicals Act 1985*.

4 Operating conditions

01 Activities must be carried out in a competent manner

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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 Emergency response

O3.1 The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times. The emergency response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. If a current emergency response plan does not exist at the date on which this condition is attached to the licence, the licensee must develop an emergency response plan within three months of that date.

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 O4.2, and O4.3.

O4.2 The licensee must assess, classify and manage any waste generated at the premises in accordance with the *Waste Classification Guidelines 2009* prior to transporting the waste off site.

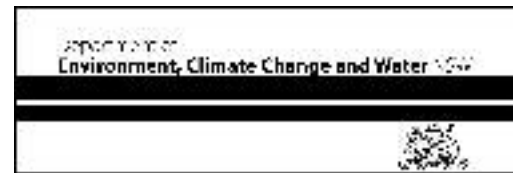
O4.3 If waste is transported from the premises, the licensee must ensure that the waste is transported by a waste transporter authorised to transport such waste and is transported to a place that can lawfully accept that waste.

O5 Wastewater management

O5.1 The licensee must ensure that all contaminated water at the premises is managed in a manner that will prevent pollution of waters.

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O6 Dust Control

- O6.1 The licensee must design, construct, commission, operate, maintain and decommission the scheduled development works and scheduled activities covered in this licence in a manner that minimises or prevents dust emissions from the site, including wind-blown and traffic-generated dust.
- O6.2 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 must identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.
- O6.3 The licensee must undertake all measures to eliminate or reduce, as far as practicable, fugitive dust emissions from transport of material from the Excavation Soil Building (ESB) to the Feed Soil Building (FSB).

O7 Hours of operation

- O7.1 The hours of operation permitted by this licence are:

Activity	Day	Time
Site Establishment and Construction	Monday to Friday	7am to 6pm
	Saturday	8am to 1pm
	Sunday and Public Holidays	Not permitted
Operation of ESB and transportation	Monday to Friday	7am to 7pm
	Saturday	7am to 7pm
	Sunday and Public Holidays	Not permitted
Operation of FSB and DTD plant	Monday to Friday	24 hours per day
	Saturday	24 hours per day
	Sunday and Public Holidays	24 hours per day

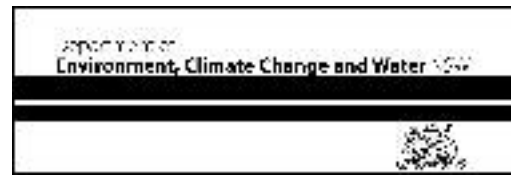
Note: The emission control systems on the ESB and FSB must operate 24 hrs per day and 7 days per week.

Note: Operation includes plant and equipment, including one front end loader handling treated material outside the DTD compound and inside the ESB and FSB

Note: For the purposes of this condition the "DTD compound" is defined as the area of the site containing the DTD plant, the air emissions control plant, the water treatment plant and the treated soil stockpile area

- O7.2 Site establishment and construction activities may be conducted outside the hours listed in the table in O7.1 provided those activities are inaudible at any residential receiver outside the premises.
- O7.3 The following activities may be carried out at the premises outside hours specified:

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- a) The delivery of plant and materials which are required by the NSW Police Department or Roads and Traffic Authority, for safety reasons, to be delivered outside the normal construction hours specified in condition O7.1 is permitted; and
- b) Emergency work to avoid the loss of lives, property and/or to prevent environmental harm.

O7.4 The licensee must submit an application to vary the licence when it requests approval to undertake out of hours construction activities not specified elsewhere in this licence. The EPA will assess each application to undertake out of hours construction activities on its merits.

O8 Noise and vibration management plan

O8.1 The licensee must prepare a Noise and Vibration Management Plan (NVMP) in respect of the project addressing the following:

- a) Appropriate noise monitoring program for the project including details of periodic noise and vibration testing to be undertaken during activities deemed likely to generate high noise and vibration levels;
- b) Management of vibration during any use of piling rig and roller;
- c) Scheduling of works/respice periods from activities likely to generate high levels of noise during major sporting events at Hensley Athletics Field;
- d) Notification to all those impacted by works likely to cause excessive vibration and noise i.e. if sheet piling is required; and
- e) Provision of a 24 hour community hotline to allow the local community to register complaints regarding noise at the Site.

O9 Handling contaminated soil

O9.1 All excavation, loading, unloading, handling and testing involving contaminated soil must only occur within the ESB and FSB.

Note: For this scheduled activity to be undertaken contaminated soil may be appropriately transported between the ESB and FSB for treatment purposes.

O10 Feed soil management

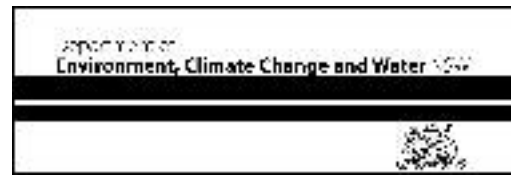
O10.1 Excavated contaminated soil may be mixed within the FSB to ensure a homogenous feed soil (in terms of moisture and size of particles) prior to treatment.

O10.2 Treated soil that does not meet the treatment criteria must not be blended, with either untreated or validated soil, to meet the criteria. Any treated soil that does not meet the treatment criteria must be re-treated until the criteria are satisfied.

O11 Stockpile management

O11.1 All contaminated soil, including treated soil that is determined not to meet the treatment criteria post validation sampling, must only be stockpiled inside the ESB or FSB.

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- O11.2 All soil that does not meet the treatment criteria must be placed back into the FSB within 24 hours of receiving post validation sampling results.
- O11.3 Any contaminated water run off from stockpile areas or any other contaminated areas must be collected and treated.
- O11.4 All stockpiles of treated and validated soil must have appropriate controls in place to minimise or prevent the emission of dust and sediment from the site.

O12 Technology assessment

- O12.1 The Licensee must complete a Technology Assessment in accordance with the requirements of the National Protocol Approval / Licensing of Trials of Technologies for the Treatment / Disposal of Schedule X Wastes July 1994 and the National Protocol Approval / Licensing of Commercial-Scale Facilities for the Treatment / Disposal of Schedule X Wastes July 1994.
- O12.2 The Technology Assessment must be approved in writing by the EPA prior to Stage 3 of this Licence commencing.
Stage 2 works and activities are permitted to be undertaken prior to the Technology Assessment being approved.
- O12.3 The licensee must construct and operate the plant generally in accordance with the specification outlined in the Technology Assessment document provided to the EPA, unless otherwise agreed by the EPA.

O13 Decommissioning DTD Plant

- O13.1 The licensee must not decommission the DTD Plant until the CPWE contents and liner, and excavation base and walls to a maximum of 9000 m³ requiring treatment, has been treated and validated, consistent with Department of Planning Project Approval 06_0197 dated 12 November 2009.

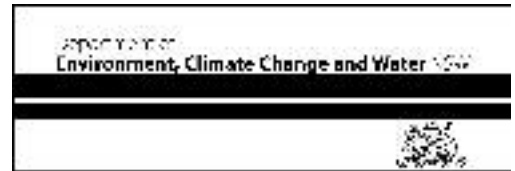
5 Monitoring and recording conditions

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.

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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

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:

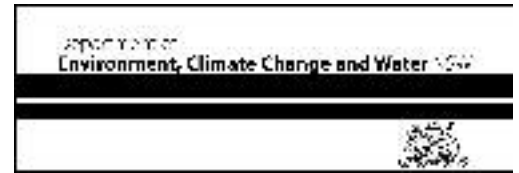
Air

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Cadmium	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Carbon monoxide	milligrams per cubic metre	Continuous	CEM-4
Chlorine	milligrams per cubic metre	Special Frequency 1	TM-7
Dioxins & Furans	nanograms per cubic metre	Special Frequency 1	TM-18
Dry gas density	kilograms per cubic metre	Special Frequency 1	TM-23
Hydrogen chloride	milligrams per cubic metre	Special Frequency 1	TM-8
Hydrogen fluoride	milligrams per cubic metre	Special Frequency 1	TM-10
Mercury	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Nitrogen Oxides	milligrams per cubic metre	Continuous	CEM-2
Oxygen (O ₂)	percent	Continuous	CEM-3
Solid Particles	milligrams per cubic metre	Special Frequency 1	TM-15
Sulfuric acid mist and sulfur trioxide (as SO ₃)	milligrams per cubic metre	Special Frequency 1	TM-3
Temperature	Celsius	Continuous	TM-2
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Special Frequency 1	TM-12, TM-13 & TM-14
Volatile organic compounds	milligrams per cubic metre	Special Frequency 1	Special Method 1
Volumetric flowrate	cubic metres per second	Continuous	CEM-6

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Temperature	Celsius	Continuous	TM-2
Volumetric flowrate	cubic metres per second	Continuous	TM-2



POINT 3

Pollutant	Units of measure	Frequency	Sampling Method
Cadmium	milligrams per cubic metre	Special Frequency 2	TM-12, TM-13 & TM-14
Mercury	milligrams per cubic metre	Special Frequency 2	TM-12, TM-13 & TM-14
Solid Particles	milligrams per cubic metre	Special Frequency 2	TM-15
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Special Frequency 2	TM-12, TM-13 & TM-14
Volatile organic compounds	parts per million	Continuous	Special Method 1

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Cadmium	milligrams per cubic metre	Special Frequency 2	TM-12, TM-13 & TM-14
Mercury	milligrams per cubic metre	Special Frequency 2	TM-12, TM-13 & TM-14
Solid Particles	milligrams per cubic metre	Special Frequency 2	TM-15
Type 1 and Type 2 substances in aggregate	milligrams per cubic metre	Special Frequency 2	TM-12, TM-13 & TM-14
Volatile organic compounds	parts per million	Continuous	Special Method 1

For the purpose of the above table/s:

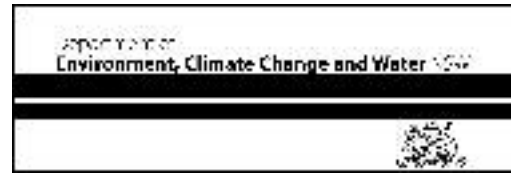
- Monitoring for Point 1 (above), **Special Frequency 1** requires sampling to be completed during each Proof of Performance run to demonstrate compliance, and then monthly for the duration of the excavation and treatment operations.
- Monitoring for Point 3 and 4 (above), **Special Frequency 2** requires sampling to be conducted at three monthly intervals from the commencement of operations.
- These monitoring frequencies may be reviewed following the Commissioning trials and Proof of Performance test if the licensee can demonstrate compliance with the licence limits for three consecutive samples.
- The sampling of volatile organic compounds must be reported as n-propane equivalent.
- Special Method 1 means sampling methods CEM-8, CEM-9 or CEM-10.

Requirement to monitor Thermal Desorption Treatment Plant and combustion parameters

M2.2 The licensee must prepare and implement a Remediation Technology Monitoring Program to monitor and record critical operating parameters during the Commissioning trials, Proof of Performance Test and commercial operations of the remediation plant. The following operating data must be monitored and recorded, with the records to be retained in an on-site log. These records must include, but need not be limited to:

- a) The quantities of materials fed into the remediation process;
- b) The characterisation of matrices constituting materials fed into the process;
- c) The operating temperatures of the DTD soil dryer unit and thermal oxidiser recorded every 5 minutes;
- d) The residence times for materials processed through the DTD thermal oxidiser must be determined and recorded every 5 minutes;

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- e) The feed rate into the DTD soil dryer unit when measuring as:
 - i. An hourly rolling average recorded every 5 minutes;
 - ii. A 10 minute rolling average recorded every 5 minutes;
- f) The flow rate within the DTD scrubber unit recorded every 5 minutes;
- g) The pH level within the DTD scrubber unit recorded every 5 minutes;
- h) The carbon monoxide concentration recorded every 5 minutes;
- i) The pressure gradient within the DTD soil dryer unit recorded every 5 minutes;
- j) The baghouse inlet temperature and cooler average temperature recorded every 5 minutes;
- k) The soil temperature in the DTD soil dryer unit as an hourly rolling average recorded every 5 minutes. This may be determined by either direct monitoring of the soil temperature or deriving an exit gas temperature limit via a correlation with the exit soil temperature and soil feed rate determined during the Commissioning trials and the Proof of Performance test; and
- l) The output measured by the broken bag detector recorded every 5 minutes.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:

- (a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
- (b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
- (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M3.2 Not applicable.

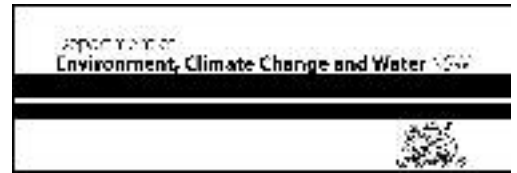
M4 Recording of pollution complaints

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

M4.2 The record must include details of the following:

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

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(f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

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

M5 Telephone complaints line

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

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

M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:

(a) the date of the issue of this licence or

(b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 Not applicable.

M7 Ambient air monitoring program

M7.1 The licensee must develop an ambient air monitoring program to monitor chemicals known to be present in the contaminated soil inside and surrounding the encapsulation. A report detailing the type, location and frequency of monitoring must be submitted to the EPA for approval prior to the commencement of Commercial Operations Phase (Stage 4).

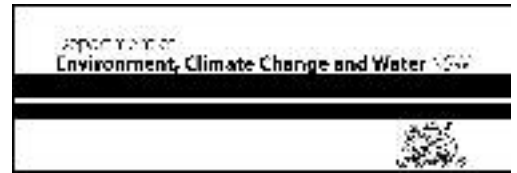
Note: The Licensee must ensure the ambient air monitoring program is underway when the CWPE liner is disturbed to demonstrate the effective operation of the emission control systems on the ESB and FSB.

Note: Any sampling required by the licence must be analysed, by a Laboratory accredited by NATA or equivalent, for the relevant sample analysis and matrix.

6 Reporting conditions

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R1 Annual return documents

What documents must an Annual Return contain?

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

Period covered by Annual Return

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

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

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

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

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

Deadline for Annual Return

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

Notification where actual load can not be calculated

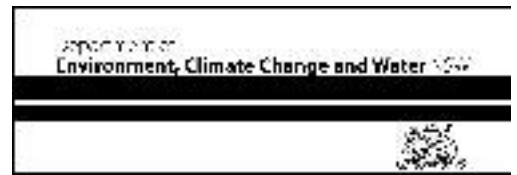
- R1.6 Not applicable.

Licensee must retain copy of Annual Return

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

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

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- (a) the licence holder; or
- (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

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

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

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

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

R3 Written report

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

- (a) where this licence applies to premises, an event has occurred at the premises; or
- (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,

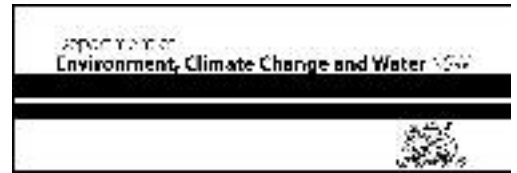
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

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

R3.3 The request may require a report which includes any or all of the following information:

- (a) the cause, time and duration of the event;
- (b) the type, volume and concentration of every pollutant discharged as a result of the event;
- (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;

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- (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 Monthly performance report

R4.1 The licensee must, throughout the life of the operation of the DTD Plant and associated activities, prepare and submit to the EPA, a Monthly Performance Report. The Report must review the performance of the development against the requirements of this Environment Protection Licence, and must include:

- a) all monitoring data collected for the development during the month, in accordance with the Environment Protection Licence;
- b) an analysis of the monitoring data required by a) must be undertaken and include any trends in the data towards any non-compliance with conditions of this licence;
- c) results of any supplementary Proof of Performance trials undertaken during that month depending on the receipt of analytical results;
- d) a copy of the Complaints Register for the month and details of how the complaints were addressed and resolved;
- e) identification of any non-compliance with the conditions of this licence; and
- f) details of additional measures to be implemented to address any non-compliance with the licence.

The first report must be submitted within one month of the Date of Commencement (Stage 1), and every month thereafter, or as otherwise agreed to in writing by the EPA. Each monthly report must be provided to the EPA within 14 days of the end of the month.

R5 Reporting exceedences

R5.1 The licensee must advise the EPA within twenty-four hours of receiving any final analytical results if the concentration of any parameter exceeds the applicable limit at any sampling point.

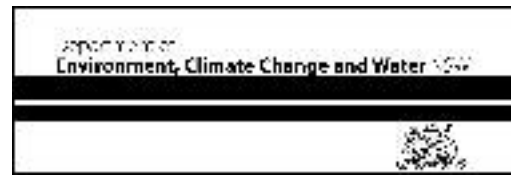
General conditions

G1 Copy of licence kept at the premises

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

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

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



the premises.

Pollution studies and reduction programs

U1 Not applicable.

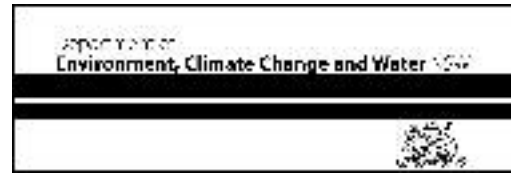
Special conditions

E1 Commissioning Trials

E1.1 At least one month prior to the beginning of the Commissioning Phase (first part of Stage 3), the licensee must submit to the EPA for approval, a plan that details the operating range(s) of the plant and the works proposed for the commissioning trials of the operation of the treatment plant(s). The plan must include all pre-treatment testing of the plant(s) to ensure that the plant(s), and all associated equipment, are operating in accordance with their specified operational range(s) and within the regulatory requirements.

The plan must include, but need not be limited to, the following:

- a) the operational range(s) of the plant and relevant equipment including temperatures, pressures, mass flow rates, etc;
- b) a schedule and procedures for testing all major process components, including all pollution control equipment, both in the absence of any soil load, and with the staged introduction of uncontaminated and contaminated soils, with rationale and justification for staging/ composition of the schedule and procedures;
- c) monitoring requirements and verification mechanisms to ensure compliance with operating design parameters for the remediation technology, including pollution control equipment, and compliance with relevant environmental and safety criteria including;
- d) provision for the successful completion of a 24 hour clean soil shakedown without significant interruption to demonstrate that the DTD plant is mechanically sound in accordance with best practice requirements;
- e) provision for a contaminated soil shake down test using contaminated soil, to determine soil treatment operating parameters such as desorber temperature and mass feed rate . This should include samples for determining residual levels of contaminants of concern in the desorbed solids. Provision should also be made to include a discussion with DECCW of results of contaminant residuals and associated desorption temperatures, to identify the minimum acceptable operating temperature of the desorber; and
- f) prior to progressing to the Proof of Performance Test, provision for pretesting the operation of DTD plant. Pretesting can comprise one or more runs to optimise performance, with associated stack testing of the main air emissions of concern that are to be agreed with DECCW prior to commencement of pretesting. In addition, at least one pretest run using



feed material that is contaminated at levels representative of the highest levels to be treated in commercial operations, with associated stack testing of the full suite of air pollutants.

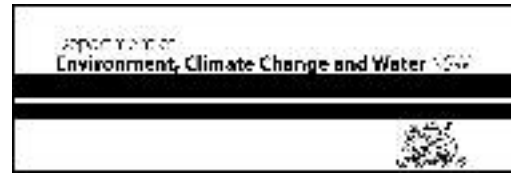
- E1.2 All stack emission results for the pre-test(s) must be forwarded to the EPA within 24 hours of receipt from the laboratory.
- E1.3 A report detailing the results of treatment trials undertaken during the Commissioning Phase must be provided to the EPA within 4 weeks of completion of this phase of works and include the proposed operational parameters for the Proof of Performance test.
- E1.4 The DTD plant must be shutdown at the completion of the pre-test(s) until approval of the Proof of Performance test plan.

E2 Proof of Performance Test for treatment of contaminated excavated soils

- E2.1 At least one month prior to commencing the Proof of Performance Phase (second part of Stage 3), the licensee must provide to the EPA, for approval a plan providing details of the proof of performance trials to be carried out to prove the DTD Plant's ability to meet all EPA performance and emission criteria. It must be provided to the EPA prior to the EPA issuing approval to conduct such proof of performance trials. This will be required for all treatment technologies that are to be used on the site.

The plan for the proof of performance trials must satisfy the requirements of the POEO Act and the EHC Act and must provide information on how the treatment plant is capable of meeting performance criteria:

- a) a framework for the collection of information equivalent to that required by National Protocol – Approval/ Licensing of Trials of Technologies for the Treatment/ Disposal of Schedule X Wastes;
- b) a framework for the collection of information to demonstrate that the remediation technology is capable of meeting:
 - i. performance criteria outlined in the documents submitted in support of the licence application;
 - ii. the technology assessment submitted in accordance with conditions of this licence; and
 - iii. relevant criteria specified in: Scheduled Chemical Wastes Chemical Control Order 2004 or, to the extent that it is impracticable to comply with the foregoing, best practice treatment levels.
- c) a testing regime and procedures for adequately characterising contaminated feed materials, based on the contaminant constituents, contaminant concentrations and other physico-chemical characteristics, prior to processing within the development;
- d) provision for at least three runs where the full suite of stack tests are undertaken for each treatment process/ plant operating condition, treating materials representative of the maximum level of contamination proposed to be treated during commercial operation, having regard to contaminant constituents, contaminant concentrations and the range of soil



matrices. Such material should be processed at the maximum feed rate proposed for commercial operations;

- e) a schedule and procedures for testing all major process components, including all pollution control equipment with rationale and justification for staging/ composition of the schedule and procedures;
- f) monitoring requirements and verification mechanisms to ensure compliance with operating design parameters for the remediation technology, including pollution control equipment, and compliance with relevant environmental and safety criteria, with rationale and justification for staging/ composition of the schedule and procedures;
- g) emissions testing consistent with the operational monitoring requirements specified in this Licence for the development; and
- h) mechanisms for review stages, changes in operational modes, or changes in equipment to address non-compliances with any design specifications, treatment standards or limits in relation to environmental or safety performance.

E2.2 All stack emission results for the Proof of Performance Phase must be forwarded to the EPA within 24 hours of receipt from the laboratory.

E2.3 A report detailing the results of treatment trials undertaken during the Proof of Performance Phase must be provided to the EPA within 4 weeks of completion of this phase of works.

Note: Between the completion of the works required in the Proof of Performance test and submission and approval of the report relating to the Proof of Performance test, reduced rate operation may be considered. The reduced rate operation will need to be undertaken in line with the operational conditions used in the pre-test(s) undertaken in accordance with E1.1(f). The licence will be amended to specify the relevant operational conditions.

E3 Supplementary Proof of Performance trials for treatment of contaminated excavated materials

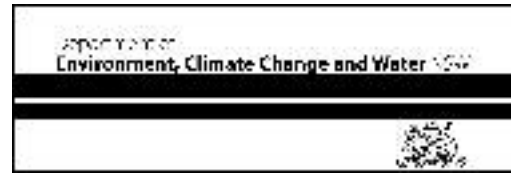
E3.1 At least two weeks prior to commencing any Supplementary Proof of Performance Trials occurring during Commercial Operations (Stage 4), the licensee must provide to the EPA, for approval prior to commencement, a plan providing details of the supplementary proof of performance trials to be carried out to prove the DTD Plant ability to meet all EPA performance and emission criteria.

Supplementary Proof of Performance Trials shall:

- a) consist of a minimum of two full runs;
- b) be carried out in a manner consistent with the original Proof of Performance test;
- c) test the effectiveness of emission controls on the ESB, FSB and DTD Plant for dealing with the contaminant concentrations that exceed the levels trialled in the original Proof of Performance test or were not tested in the original Proof of Performance test; and
- d) if any soil to be treated contains total petroleum hydrocarbons, at significantly different levels to soils previously treated in the Commissioning and Proof of Performance Tests, the licensee must demonstrate that high concentrations will not affect the ability of the DTD Plant to meet the limits set out in condition L3 and as required by the soil treatment criteria.

The plan must detail all proposed changes to the current operating parameters of the DTD Plant that are to be trialled and it must be provided to the EPA prior to the EPA issuing approval to conduct such proof of performance trials.

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Note: Supplementary Proof of Performance trials are required if, during Commercial Operations, the nature of the materials being treated changes significantly from that tested during the original Proof of Performance trials (e.g. different chemicals found to be present) or if changes to plant operating conditions are proposed that could affect the ability of the plant to meet licence requirements.

The Licence will be modified to specify appropriate operating parameters for the DTD Plant during any supplementary Proof of Performance trials.

E4 Commercial operations plant

E4.1 Prior to the commencement of the Commercial Operations Stage of the Licence (Stage 4) the licensee must provide the EPA, for approval by the EPA, an Environmental Management Plan for Commercial Operations. The plan must detail the works proposed in preparation for commercial treatment of contaminated materials within the plant(s).

The environmental management plan for commercial operations must include, but is not limited to, the following:

- a) details of pre-treatment of contaminated material prior to processing, including the storage, handling and management of wastes and emissions resulting from pre-treatment;
- b) determination of the operating range of the development in treating contaminated material based on the results of proof of performance trials and any subsequent treatment trials;
- c) details of the introduction of contaminated material (scheduled waste) into the treatment facility, having regard to:
 - i) the range of matrices, which may have different handling and pre-treatment requirements;
 - ii) the range of contaminant concentrations;
 - iii) the potential for air emissions ;
- d) rationale and justification for the testing and staging of the treatment process;
- e) monitoring and verification tests to demonstrate compliance with all relevant criteria; and
- f) emissions testing in accordance with the relevant conditions of this Licence.

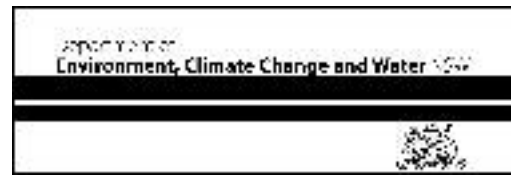
Once approved by the EPA, the licensee must implement the Plan for the duration of commercial treatment operations.

E5 CPWE Conditions (previously under Environment Protection Licence 2148)

Preamble

- a) The timeline provided in E5 is based on remediation of the Car Park Waste as described in the project Environmental Assessment and Remediation Action Plan (final amended) submitted by Orica to the NSW Department of Planning.
- b) Should the results of the current monitoring program indicate that more timely attention is required by Orica, the timeline provided for the remediation works may be modified.
- c) For the purposes of all special condition(s) in Section E5 – E8:

‘Impacted soils’ is defined as: any soils contaminated by hexachlorobutadiene (HCBT) and/or associated compounds, within the immediate vicinity of the Car Park Waste Encapsulation cell.



'Car Park Waste Encapsulation (CPWE)' or 'HCB encapsulation cell' is defined as: the encapsulation cell that lies beneath the car park on the North East boundary of the Botany Industrial Park (BIP) as shown on map Fig 4.1 from "HCB Encapsulation Groundwater Monitoring Report No 7" dated 28 August 2003.

'Car Park Waste' is defined as: Approximately 45 000 cubic metres of a mixture of sand and coal ash containing hexachlorobenzene (HCB) and other chlorinated materials including HCB, interred under a paved car park area containing approximately 0.18% of HCB and other chlorinated materials (Ref.: Hexachlorobenzene Waste Management Plan, Australian and New Zealand Environment Conservation Council (ANZECC), 1996).

'Remediation' is defined as:

- (a) preparing a long-term management plan (if any) for the land, and
- (b) removing, destroying, reducing, mitigating or containing the contamination of the land, and
- (c) eliminating or reducing any hazard arising from the contamination of the land (including by preventing the entry of persons or animals on the land).

Reference: *Contaminated Land Management Act 1997* No 140

- Note: (i) in this context "land" includes the Car Park Waste and Impacted Materials;
- (ii) the Scheduled Chemical Waste Chemical Control Order (CCO) does not permit 'dispersion' to meet limits; and
- (iii) the aim of these works also includes protection of groundwater.

E6 Timetable for Remediation of Car Park Waste and Impacted Soils

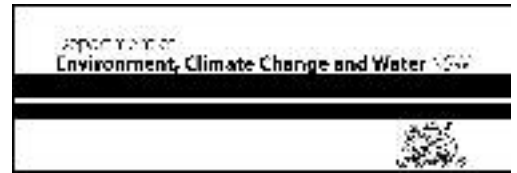
- E6.1 Once the Construction and Site Establishment Works (Stage 2) have physically commenced, the licensee must ensure the Car Park Waste and impacted soils are remediated and/or disposed of within a maximum period of two years from the date of commencement of the works unless otherwise agreed to in writing by the EPA. The licensee must notify the EPA in writing the date of commencement of Construction and Site Establishment. The remediation activity must include treatment of waste and demobilisation of site equipment. The licensee must also submit a report to the EPA by 1 February and 1 July each year until the commencement of Construction and Site Establishment Works to provide an update on the progress towards remediation of Car Park Waste and impacted soils.

E7 Progress reporting on remediation works to remove the source of hexachlorobutadiene (HCB) and associated compounds

- E7.1 Every six months after commencement of the Construction and Site Establishment Works, the licensee must submit a report to Manager Sydney Industry, EPA, PO Box 668, Parramatta 2124 containing the following information:
- a) Progress report on the remediation works;
 - b) Confirmation that the works have been undertaken in accordance with the EPA's waste guidelines and POEO Waste Regulation 2005;
 - c) Results of any additional monitoring or alternative works to demonstrate as far as practical that this action has been effective in removing the source that led to the detection of HCB in groundwater at the groundwater monitoring point at WG95S;

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- d) An interpretive report on the results of groundwater and/or soil monitoring and an assessment of the effectiveness of the remediation works to achieve an HCBd groundwater concentration not greater than 0.04µg/L at the boundary of the CPWE part of Lot 11 in DP1039919; and
- e) Any revisions to the project timetable (as a Gantt Chart or equivalent).

Note: the above concentration is a low reliability trigger value taken from ANZECC and Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ) 2000 water quality guidelines. Exceedances of such levels trigger further investigation.

E8 Ongoing groundwater monitoring around the CPWE

- E8.1
- a) On a six monthly basis until the commencement of the Construction and Site Establishment Works the licensee must conduct a groundwater monitoring program around the encapsulation. The program should at least include monitoring at the following wells – WG50S, WG93S/I/D, WG94S, WG95S, WG96S/I/D, WG200S/I/D, WG202S/I/D, WG203I/D, WG218S/I/D, WG219S/I/D and WG220S/I/D for the chemicals listed below.
 - b) The licensee must submit a six monthly progress report which includes the results of the above monitoring and an interpretive comment on the monitoring results to Manager, Sydney Industry, EPA, PO Box 668 Parramatta 2124.
 - c) At least two months prior to the commencement of the Construction and Site Establishment Works, the licensee must provide the EPA with a proposal for ongoing groundwater monitoring around the encapsulation. The proposal must include groundwater monitoring at a minimum of once every three months for the first year after Construction and Site Establishment Works commence and every six months for not less than four years thereafter, unless otherwise agreed in writing by the EPA. The proposal is to be implemented at the commencement of the Construction and Site Establishment Works.

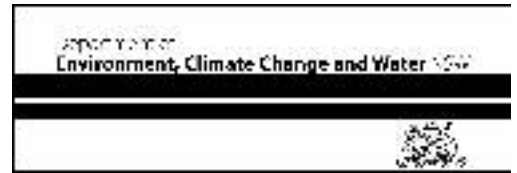
Chemicals to be analysed in the Car Park groundwater monitoring program

VOLATILE CHLORINATED HYDROCARBONS

Chlorinated Methanes
 Pentachloroethane
 1,1,1,2-Tetrachloroethane
 1,1,2,2-Tetrachloroethane
 1,1,1-Trichloroethane
 1,1,2-Trichloroethane
 1,2-Dichloroethane
 1,1-Dichloroethane
 Chloroethane
 Tetrachloroethene
 Trichloroethene
cis-1,2-Dichloroethene
trans-1,2-Dichloroethene
 1,1-Dichloroethene
 Vinyl chloride

SEMIVOLATILE CHLORINATED HYDROCARBONS

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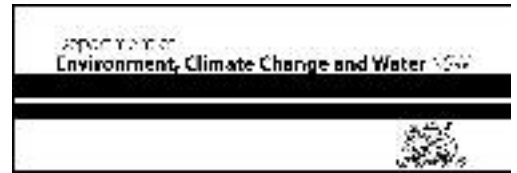
1,2-Dichlorobenzene
 1,3-Dichlorobenzene
 1,4- Dichlorobenzene
 1,2,4-Trichlorobenzene
 1,3,5-Trichlorobenzene
 1,2,4,5-Tetrachlorobenzene
 Pentachlorobenzene
 Hexachlorobenzene
 Hexachlorobutadiene
 Hexachlorocyclopentadiene
 Hexachloroethane
 Hexachloropropylene

E9 Completion reporting

E9.1 Within three months of the completion of the reinstatement of the CPWE Site (Stage 6) the licensee must provide a report to the EPA, the Community Participation and Review Committee (CPRC) and the NSW Office of Water demonstrating complete achievement of the remediation objectives for the Car Park Waste.

E10 Specific definitions

24 hour test	means testing of the DTD plant while processing clean soil to demonstrate operational reliability for a period of 24 hours
Commissioning trials	these trials involve the work required to test the performance of all major process components including emission control systems using no soil, clean soils and then contaminated soils as well as the initial start-up of buildings, plant and facilities, including excavation and feed soil buildings, water treatment plant, DTD plant hardstand areas, internal haulage roads, site offices and decontamination units.
CPWE	means Car Park Waste Encapsulation
DTD Plant	means Directly-heated Thermal Desorption plant
EPA Exemption Order	means the Order Granting Exemption under Section 284 of the <i>Protection of the Environment Operations Act 1997</i> granted by the EPA
ESB	means the Excavation Soil Building
FSB	means the Feed Soil Building
Pre-test	means a full stack test to establish that compliance with stack test parameters is possible and that logistics associated with sampling and analysis are practicable
Proof of Performance Test	this test involves the work to prove the DTD plant's ability to meet all EPA performance and emission criteria
Treatment criteria	means the treatment criteria listed under Schedule 3 in Condition 21 of the Department of Planning's Project Approval 06_0197 dated 12 November 2009
Soil	means any substance removed from within and surrounding the Car Park Waste Encapsulation liner and the liner itself. These substances may include other materials directly contaminated by remediation activities such as drum and other storage containers, capping material and landscaping
Soil shakedown	means trials to perform a sensitivity study on key soil processing parameters, such as soil feed rate and soil treatment temperature, to determine soil treatment parameters



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Supplementary Proof of Performance	means supplementary Proof of Performance Trials that replicate trials of remediation technology carried out while processing contaminated soil, in accordance with defined conditions, designed to establish compliance with soil treatment standards, air emission criteria and other licence conditions when the nature of the contamination changes or changes to operational parameters are proposed
Water Treatment Plant	means the waste treatment plant associated with the development

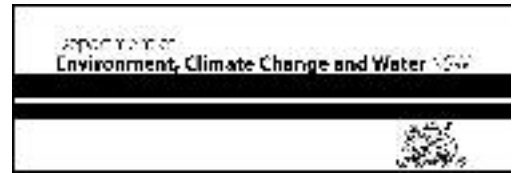
Dictionary

General Dictionary

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

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <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 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <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

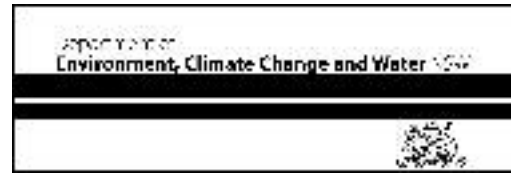
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environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.
flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
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.

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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> .
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 James Goodwin

Environment Protection Authority

(By Delegation)

27-May-2010

End Notes