



**ORICA VILLAWOOD SOIL REMEDIATION PROJECT  
MONTHLY PERFORMANCE REPORT  
JANUARY 2020**

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- Attachment 1      Complaints Register January 2020**
  
- Attachment 2      Compliance Status January 2020 – EPL 2149**
  
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In this report and its attachment, unless the contrary is indicated, the terms below have the following meanings:

AQMP	Air Quality Management Plan
BoM	Bureau of Meteorology
CPoP	Commissioning and Proof of Performance
CSS	Contaminated Soil Shakedown
dB(A)	A-weighted Decibels
°C	Degrees Celsius
DPE	Department of Planning and Environment
DTD Plant	Directly-heated Thermal Desorption Plant
EA	Environmental Assessment
ECS	Emission Control System
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ESL	Environmental Sampling Location
FSB	Feed Soil Building
g/m <sup>2</sup> /month	Grams per meter squared per month
L <sub>Aeq</sub>	Equivalent continuous (energy average) A-weighted sound pressure level
L <sub>AMAX</sub>	Maximum A-weighted sound pressure level
L <sub>AMIN</sub>	Minimum A-weighted sound pressure level
mg/kg	Milligrams per kilogram
mg/m <sup>3</sup>	Milligrams per cubic metre
µg/m <sup>3</sup>	Micrograms per cubic metre
ng/m <sup>3</sup>	Nano grams per cubic metre
OU	Odour Unit. An Impact Assessment Criterion = $[\text{Log}_{10}(\text{population}) - 4.5] / 0.6$ .
NAL	Noise Assessment Location
PID	Photo Ionisation Detector
ppm	Parts per million
PM <sub>10</sub>	Particulate matter less than or equal to 10 µm in aerodynamic diameter
PoP	Proof of Performance
ppbv	Parts per billion vapour
VOC	Volatile Organic Compound
WTP	Water Treatment Plant

Note that these terms do not appear in every monthly report and have been included for reference only.

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## 1 INTRODUCTION

This Monthly Performance Report has been prepared in accordance with the requirements of Schedule 4, Condition 3 of the now Department of Planning, Industry and Environment Project Approval 09\_0147, dated 18 May 2012, which states:

*The Proponent shall provide to the Director-General and the EPA, a Monthly Report, throughout all stages of the project. The Report shall review the performance of the project against the requirements of this approval and the EPL, and shall include:*

- a) all monitoring data collected for the project during the month;*
- b) results of all CPOP trials in the Monthly Report following each trial or trials;*
- c) a copy of the complaints register for the month and details of how these complaints were addressed and resolved;*
- d) identification of any non-compliance with the conditions of this approval and the EPL; and*
- e) details of additional measures to be implemented to address any non-compliance.*

*The first report shall be submitted within one month of the commencement of Site Establishment, and every month thereafter, or as otherwise agreed by the Director-General. The Proponent shall make available copies of Monthly Reports to the public on request.*

This report provides information on the compliance status of the Villawood Soil Remediation Project against the Conditions and Commitments detailed in Project Approval 09\_0147.

Attachment 1 provides a summary of complaints for the month (if any).

Attachments 2 – 4 provide a compliance status checklist against the Environmental Protection Licence (EPL) 2149, Project Approval and Orica's Statement of Commitments respectively.

## **2 PROGRESS**

### **2.1 Site Work**

Complete.

### **2.2 Final Documentation**

The Remediation Validation Report, Asbestos Management Plan and Long Term Site Environmental Management Plan have been reviewed and accepted by the Site Auditor.

The Site Auditor drafted a Site Audit Report accordingly in 2016. In October 2017 Orica met with the Site Auditor to discuss options for progressing finalisation of the Report and divestment of the site. The Site Auditor advised that the Report could be finalised once Orica provided greater clarity around how the site would be developed and divested, and there was a clear regulatory pathway for enforcing implementation of the Long Term Site Environmental Management Plan.

In August 2019 the Site Auditor finalised the Section B Site Audit Report. On 21 August 2019 Orica duly advised NSW Department of Planning, Industry and Environment and NSW Environment Protection Authority (EPA).

### **2.3 Regulatory Approvals**

On 8 November 2016 Orica wrote to the Secretary of the DPE requesting a modification of Project Approval 09\_0147 under section 75W of the *Environmental Planning and Assessment Act 1979 (NSW)* to include implementation of the Long Term Site Environmental Management Plan in the approval conditions. The DPE responded in May 2017, stating that the relevant condition in the Project Approval is open ended, thereby allowing completion as determined by the Secretary. As such, the DPE did not believe there is a pressing need to modify the condition.

## **3 COMPLAINTS**

A register of complaints is maintained in accordance with the Project Approval.

There were no complaints.

## **4 NON-COMPLIANCES**

Incidents of non-compliance or potential non-compliance with the goals and standards set out in the Project Approval are required to be reported in the Monthly Performance Reports. No non-compliances were recorded.

**ATTACHMENT 1 COMPLAINTS REGISTER JANUARY 2020**

No complaints.

## ATTACHMENT 2: VILLAWOOD REMEDIATION PROJECT COMPLIANCE STATUS JANUARY 2020 – EPL 2149

	Compliance achieved / not triggered
	Potential non compliance
	Non compliance

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
<b>EPL 2149</b>			
<b>Administrative Conditions</b>			
A1.1	This licence authorises the carrying out of the scheduled development work listed below at the premises specified in A2.		
A1.2	This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2. There are 6 stages of works authorised by this licence namely: Stage 1 Construction and Site Establishment Works; Stage 2 DTD Plant Commissioning; Stage 3 Proof of Performance (PoP) Testing; Stage 4 Commercial Operations (Excavation and Treatment); Stage 5 Decommissioning and Demobilisation; and Stage 6 Reinstatement of site		
A1.3	The licensee must not commence activities defined under stages 2 and 3 until the Technology Assessment required by condition O5.3 of this licence and the CPoP plan have been completed to the satisfaction of the EPA.		
A1.4	Stage 1. The licensee may undertake works and activities described under Stage 1 above, but must not proceed with Stage 2 until the licensee receives and implements all formal written reasonable requirements of the EPA on the CPoP Plan. (Stage 1 activities include a requirement for the licensee to prepare and submit to the EPA a CPoP plan for its review).		
A1.5	Stage 2. Once the EPA has provided its formal written reasonable requirements on the CPoP report required under Stage 1 above, the licensee may proceed with works and activities permitted by Stage 2 (Shakedown and temperature optimisation). Based on stack test results, Stage 2A requires the licensee to prepare and submit to the EPA an Interim Shakedown Report. At this point the licensee must not proceed with the Desorber Temperature Optimisation Trial (DTOT) (Stage 2B) until the licensee receives and implements all formal written reasonable requirements of the EPA on the Interim Shakedown Report. On completion of the DTOT the licensee must complete and submit to the EPA a Contaminated Soil Shakedown Test Report comprising and summarising all run, temperature and stack data. At this point the licensee must not proceed to Stage 3 until the licensee receives and implements all formal written reasonable requirements of the EPA on the Contaminated Soil Shakedown Test Report.		
A1.6	Stage 3. Once the EPA has provided its formal written reasonable requirements on the Contaminated Soil Shakedown Test Report required under Stage 2 above, the licensee may proceed with works and activities permitted by Stage 3. (Stage 3 requires the licensee to prepare and submit to the EPA a Contaminated Soil Shakedown Report and consult with the EPA on PoP test conditions). To avoid any doubt, the licensee must shut down the plant at the end of the contaminated soil shakedown and PoP testing regimes unless otherwise advised in writing by the EPA. (The EPA may allow continued treatment at reduced feed rate after PoP testing, based on the data from commissioning and pre-testing).		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
A1.7	Stage 4. Once the EPA has reviewed the PoP test results required under Stage 3 above, the licensee must not proceed to Stage 4 until the licensee receives and implements all formal written reasonable requirements of the EPA on the PoP test results. The licensee must advise the EPA of any significant excursions from the agreed PoP test conditions encountered during Commercial Operations. Significant changes in operating conditions of the DTD described in the licence will result in the requirement for supplementary PoP (supp-PoP) testing.		
A1.8	Except as expressly provided by these conditions, the works and activities must be carried out in accordance with the proposals and requirements contained in the following documents: a) the Major Project application and Project Approval No. 09-0147, lodged under Part 3A of the Environmental Planning and Assessment Act and issued by the Department of Planning and Infrastructure on 18 May 2012; b) remediation of 2 Christina Road Villawood, NSW – Environmental Assessment - dated February 2011 c) the Final report - Air quality impact assessment for Orica Villawood remediation project - Thiess Services Pty Ltd - Job No: 3672 - dated 27 September 2010; d) the Final Human Health and Environmental Risk Assessment, Orica Villawood, prepared by URS Australia Pty Ltd (ref. 43217484, dated 12 August 2010) and the Remedial Action Plan, prepared by AECOM Australia Pty Ltd (ref. S4149701, dated 2 June 2010); f) remediation of 2 Christina Road Villawood, NSW – Environmental Assessment Submissions Report - dated November 2011; g) all additional information provided to the EPA in relation to the development; and h) the Approved Technology Assessment		
A2.1	The licence applies to the premises listed in the licence.		
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: 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.		
<b>Discharges to Air and Water and Applications to Land</b>			
P1.1	The points referred to in the table (Points 1 to 4) 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.		
P1.2	The points referred to in the table in P1.3 are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.		
P1.3	The utilisation areas referred to in the table (Points 5 and 6) 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.		
<b>Limit conditions</b>			
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.		
L2.1	For each monitoring/discharge point or utilisation area specified in the table\ in this condition (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	Air concentration limits for Points 1, 3 and 4 are provided in tables.		



Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
L2.3	<p>The emission limits detailed in Condition L2.2 will be reviewed following Commissioning and Proof of Performance Trials. For the purposes of those emission limits:</p> <ul style="list-style-type: none"> <li>i) volatile organic compounds (VOCs) are to be n-propane equivalent;</li> <li>ii) the reference conditions for all pollutants in those tables, except for Dioxins and Furans are dry, 273 K, 101.3 kPa; and</li> <li>iii) the reference conditions for Dioxin and Furans must be as specified in the <i>Protection of the Environment Operations (Clean Air) Regulation 2002</i>. <p>Note 1: The oxygen correction factor for Point 1 will be determined following Commissioning trials and the Proof of Performance Tests. The licensee must determine an oxygen correction factor, and submit to the EPA for review, which reflects the operation of the equipment.</p> <p>Note 2: VOC concentration limit for the feed soil building (FSB) carbon bed interstage point (Point 4) to be determined once the emission control systems are operating.</p> </li></ul>		
L2.4	<p>The licensee must develop a site specific concentration limit for emissions of volatile organic compounds (VOCs) from discharge Point 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 system associated with the FSB.</p>		
L2.5	<p>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:</p> <p>Point 2 - Residence time 2 seconds instantaneous, Temperature 980 Degrees C hourly rolling</p> <p>Note: The limits for residence time and temperature may be reviewed pending the results of the Commissioning</p>		
L2.6	<p>Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.</p>		
L2.7	<p>To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.</p>		
L2.8	<p>Water and/or land concentration limits are provided in a table.</p>		
L3.1	<p>The licensee must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the table provided 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.</p>		
L4.1	<p>Noise generated at the premises must not exceed the noise limits presented in a table. All feasible and practicable noise mitigation measures shall be implemented with the aim of minimising noise impacts from the development relative to the day time noise goals in the table below. If noise exceeds the day time noise goals the licensee shall investigate, establish the reason and implement all additional feasible and practicable measures. The location(s) referred to in the table below are indicated in the relevant Figure 4.2 – Location of Noise Sensitive Receivers in the Report "Orica Villawood Remediation – Noise and Vibration Assessment – (Report No. 09295 Version C) dated November 2010.</p>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
L4.2	Hours of operation must be in accordance with the times defined in <i>Table 2: Site Establishment and Operation hours</i> - Condition 23, Schedule 3 of Project Approval number 09_0147. Note: For the purpose of condition L4.1; i) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays; ii) Evening is defined as the period 6pm to 10pm; and iii) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.		
L4.3	The noise limits set out in condition L4.1 apply under all meteorological conditions except for any one of the following: i) Wind speeds greater than 3 metres/second at 10 metres above ground level; or ii) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or iii) Stability category G temperature inversion conditions. For the purposes of condition L4.3: The meteorological data to be used for determining meteorological conditions is the data recorded by the meteorological weather station established at this site for the purposes of this Environment Protection Licence. Stability category temperature inversion conditions are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.		
L4.4	For the purposes of determining the noise generated at the premises a Class 1 or 2 noise monitoring equipment as defined by AS IEC61672.1-2004 and AS IEC61672.2-2004, or other noise monitoring equipment accepted by the EPA in writing, must be used.		
L4.5	To determine compliance: a) with the Leq(15 minute) noise limits in condition L4.1, the noise monitoring equipment must be located: i) within 30 metres of a dwelling façade where any dwelling on the property is situated more than 30 metres from the property boundary that is closest to the premises; or ii) approximately on the boundary where any dwelling is situated 30 metres or less from the property boundary that is closest to the premises; or iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve. b) with the LA1,1min noise limits in condition L4.1, the noise monitoring equipment must be located within 1 metre of a dwelling façade. c) the noise monitoring equipment must be located in a position that is: • at the most affected point at a location where there is no dwelling at the location; or • at the most affected point within an area at a location prescribed by conditions L4.5(a) or L4.5(b)		
L4.6	An exceedance will still occur where noise generated from the premises in excess of the appropriate limit specified in the condition L4.1 is detected: in an area at a location other than an area prescribed by condition L4.5; and/or at a point other than the most affected point at a location.		
L4.7	For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
L5.1	No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997. Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.		
<b>Operating conditions</b>			
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.		
O2.1	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.		
O3.1	i) The applicant 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; and ii) All activities on the site must be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the applicant must identify and implement all practicable dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease; and iii) The applicant must undertake all measures to eliminate or reduce, as far as practicable, fugitive dust emissions from transport of material from the remediation areas to the Feed Soil Building (FSB) or soil		
O4.1	The licensee must maintain, and implement as necessary, a current emergency response plan for the premises. The licensee must keep the emergency response plan on the premises at all times. The emergency response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. If a current emergency response plan does not exist at the date on which this condition is attached to the licence, the licensee must develop an emergency response plan within three months of that date.		
O5.1	The licensee must ensure that waste identified for recycling is stored separately from other waste.		
O5.2	The licensee must complete a Technology Assessment in accordance with the requirements of the National Protocol Approval / Licensing 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, Environmentally Hazardous Chemicals Act (1985) and the Chemical Control Order in Relation Scheduled Chemical Wastes (2004). The Technology Assessment must be submitted to the EPA for review. DTD Plant Commissioning and Proof of Performance trials work must not commence until the licensee receives and implements all formal written reasonable requirements of the EPA on the Technology Assessment. The licensee must construct and operate the plant generally in accordance with the specification outlined in the Technology Assessment document provided to the EPA.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
O5.3	The design parameters for discharge points 1 and 3 when operating must meet the requirements specified in the table provided. During work hours and at all other times the exit velocity at point 3 must be enough to maintain negative pressure inside the FSB and to prevent fugitive releases from the FSB.		
O6.1	From the day of commencement of operations and thereafter the emission control systems on the FSB must operate at all times.		
O6.2	Excavated contaminated soil may be mixed within the FSB to ensure a homogenous feed soil (in terms of moisture and size particles) prior to treatment.		
O6.3	All contaminated soil, including treated soil that is determined not to meet the treatment criteria post validation sampling, must only be stockpiled inside the FSB.		
O6.4	The licensee must: i) Operate the Feed Soil Building Emission Control System in a manner that prevents any exceedance of EPA's air emissions criteria; ii) Only excavate one area at a time consistent with the term "Remediation Areas" in Section 3.5.1 in the Technology Assessment and/or the Air Quality Impact Assessment (whichever results in disturbance of the smaller in area); iii) Ensure that all soil from zones to be remediated or elsewhere must be covered when stockpiled if they are required to be stockpiled for more than 24 hours; iv) Ensure that excavations are covered so that emissions are eliminated or minimised to the maximum extent practicable at the end of each day; and v) Ensure that all loads in trucks are suitably covered during vehicle movements in and from the site.		
O6.5	The licensee must ensure that at all times when contaminated soil is being fed into the DTD plant, that it is operated within the following parameters (except during a 90 minute start-up period): (a) Except as otherwise specified in this licence, the combined mass load of dichlorodiphenyltrichloroethane (DDT), dichlorodiphenyldichloroethylene (DDE) and dichlorodiphenyldichloroethane (DDD) fed to the Dryer must be no greater than 31.4 kilograms per hour, when measured as an hourly rolling average; (b) The dryer exit gas temperature must be greater than 512 degrees Celsius when measured as an hourly rolling average; (c) The scrubber pH must be greater than 7.3 when measured as an hourly rolling average; and (d) The scrubber recycle flow rate must be greater than 1,459 litres per minute when measured as an hourly rolling average. Note: DDT, DDE and DDD are collectively referred to as DDX.		
O6.6	The licensee must ensure that if the Dryer exit temperature falls below the temperature required by condition O6.5(b): (1) All contaminated soil being fed to the Dryer is diverted to the reject stockpile; and (2) The licensee must continue to divert all contaminated soil being fed to the Dryer to the reject stockpile until the licensee can demonstrate full compliance with condition O6.5(b); and (3) The contaminated soil within the reject stockpile must be: (a) validated as a discrete stockpile in accordance with Section 19.9 of the RAP; or (b) transported to the FSB for blending with the feed soil stockpile and retreated. (4) Re-use of reject stockpile material, on the basis of validation sampling and analysis results, shall be subject to the approval of the site auditor.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
O6.7	<p>The licensee must operate the Water Treatment Systems in the following manner:</p> <p><u>Dry weather</u> In dry weather all surface and groundwater from System 2 and System 3 areas of the site must be collected and appropriately treated prior to discharge to the sewer in accordance with the relevant trade waste agreement Number 36008 issued to Enviropacific Services. No discharges are permitted to stormwater except for clean System 1 stormwater which drains directly offsite without treatment or testing. System 1 System 2 and System 3 are as defined in the document titled WP04 EYR3014 Orica Villawood Water Management Plan Revision 4.2.</p> <p><u>Wet weather</u> In wet weather treated water from System 2 and treated by WWTP 2 (as defined in the document titled WP04 EYR3014 Orica Villawood Water Management Plan Revision 4.2) may be discharged directly to stormwater through discharge point 6 (i.e. by-passing System 3 ponds) after appropriate sampling in accordance with condition M.2.3. Wet weather is defined as: Greater than 10mm/hour rainfall and one hour after the rain event has ceased. Dry weather is defined as: Any other time and as defined in the document titled WP04 EYR3014 Orica Villawood Water Management Plan Revision 4.2.</p>		
<b>Monitoring and recording conditions</b>			
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	<p>All records required to be kept by this licence must be:</p> <p>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.</p> <p>M1.3 The following records must be kept in respect of any samples required to be collected</p>		
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <p>a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.</p>		
M2.1	For each monitoring/discharge point or utilisation area specified in the licence (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 shall meet the requirements set out in this condition.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
M2.3	<p>Water and/or land monitoring shall meet the requirements set out in this condition.</p> <p>For the purpose of the table/s in Condition M2.2:</p> <p>Monitoring for Point 1 (above), <b>Special Frequency 1</b> 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.</p> <p>Monitoring for Point 3 (above), <b>Special Frequency 2</b> requires sampling to be conducted post commissioning then at three monthly intervals from the commencement of operations.</p> <p>The sampling of volatile organic compounds must be reported as n-propane equivalent.</p> <p>Special Method 1 means sampling methods CEM-8, CEM-9 or CEM-10.</p>		
M2.4	<p>The licensee must develop an ambient air monitoring program to monitor fugitive emissions from site works including chemicals known to be present in the contaminated soil surrounding the excavation area and FSB. A report detailing the type, location and frequency of monitoring must be submitted to the EPA for comment. DTD Plant Commissioning and Proof of Performance trials work must not commence until the licensee receives and implements all formal written reasonable requirements of the EPA on the report.</p> <p>The licensee must ensure the ambient air monitoring program is underway when excavation begins to demonstrate the effective operation of the emission control systems on the FSB.</p> <p>Any sampling required by the license must be analysed, by a Laboratory accredited by NATA or equivalent, for the relevant sample analysis and matrix.</p>		
M2.5	<p>Prior to the commencement of contaminated material treatment, the licensee must submit a VOC breakthrough action plan to the EPA for comment. As a minimum the plan must:</p> <ul style="list-style-type: none"> <li>i) propose a preferred method for continuously monitoring VOC breakthrough in the FSB. The preferred method must have an adequate lower detection limit to achieve meaningful comparison with licensee defined carbon breakthrough trigger(s);</li> <li>ii) nominate a VOC breakthrough trigger(s); and</li> <li>iii) define, in detail, breakthrough actions for implementation upon measurement of a VOC concentration at and above the nominated breakthrough trigger level.</li> </ul>		
M3.1	<p>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:</p> <ul style="list-style-type: none"> <li>a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or</li> <li>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</li> <li>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.</li> </ul>		
M3.2	<p>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.</p> <p>Note: The <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i> 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".</p>		
M4.1	<p>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.</p>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
M4.2	<p>The record must include details of the following:</p> <ul style="list-style-type: none"> <li>a) the date and time of the complaint;</li> <li>b) the method by which the complaint was made;</li> <li>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;</li> <li>d) the nature of the complaint;</li> <li>e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and</li> <li>f) if no action was taken by the licensee, the reasons why no action was taken.</li> </ul>		
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.		
M5.1	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	<p>The preceding two conditions do not apply until 3 months after:</p> <ul style="list-style-type: none"> <li>a) the date of the issue of this licence or</li> <li>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.</li> </ul>		
M6.1	<p>To assess compliance with the noise limits of this licence, attended noise monitoring must be undertaken:</p> <ul style="list-style-type: none"> <li>a) at the locations listed in the noise limit conditions of this licence; and</li> <li>b) at sufficient frequency to demonstrate compliance as defined in the NSW Industrial Noise Policy.</li> </ul>		
M6.2	<p>The licensee must prepare and implement a Remediation Technology Monitoring Program to monitor and record critical operating parameters during Stage 4. 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:</p> <ul style="list-style-type: none"> <li>a) The quantities of materials fed into the remediation process;</li> <li>b) The characterisation of matrices constituting materials fed into the process;</li> <li>c) The operating temperatures of the Thermal Oxidiser recorded every 5 minutes;</li> <li>d) The residence times for materials processed through the thermal oxidiser must be determined and recorded every 5 minutes;</li> <li>e) The feed rate into the Dryer when determined as an hourly rolling average recorded every 5 minutes;</li> <li>f) The flow rate within the Scrubber recorded every 5 minutes;</li> <li>g) The pH level within the Scrubber recorded every 5 minutes;</li> <li>h) The carbon monoxide concentration recorded every 5 minutes;</li> <li>i) The negative pressure (suction) at the feed end of the Dryer recorded every 5 minutes;</li> <li>j) The baghouse inlet temperature and evaporative cooling unit exit temperature recorded every 5 minutes;</li> <li>k) The Dryer exit gas temperature as an hourly rolling average recorded every 5 minutes;</li> <li>l) The Dryer exit soil temperature as an hourly rolling average recorded every 5 minutes; and</li> <li>m) The output measured by the broken bag detector recorded every 5 minutes.</li> </ul>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
M6.3	<p>Except as noted in (g) below, the licensee must calculate the mass load of DDX to the dryer accordance with the following:</p> <p>(a) One composite sample of contaminated soil must be collected at frequency that ensures a minimum of one composite sample for every 24 hours of DTD plant operation;</p> <p>(b) Each composite sample collected as a requirement of Condition M6.3(a) must be composited from minimum of three sub-samples of contaminated soil collected from the Dryer feed belt;</p> <p>(c) The sub-samples required by Condition M6.3(b) must be collected at equally spaced intervals (plus minus ten percent) when assessed in terms of tonnage of contaminated soil treated between consecutive composite samples;</p> <p>(d) Each composite sample must be analysed by a NATA accredited laboratory for DDX;</p> <p>(e) A five-sample rolling average of the DDX load (as determined in Condition M6.3(d)) must calculated for every consecutive composite sample collected as a requirement of Condition M6.3(a);</p> <p>(f) If the DDX load (as determined in Condition M6.3(d)) exceeds 31.4 kilograms per hour for three consecutive five-sample rolling averages as calculated in accordance with Condition M6.3(e), then licensee must comply with Condition E1.2 in relation to supplementary Proof of Performance Trials;</p> <p>(g) For the estimated 1,800 m3 of stockpiled material from Orica's former Chester Hill site, which contaminated with chlorinated hydrocarbons other than DDX, the licensee must conduct a PoP test, as Stage 3, but with one run and full stack test, and must then switch production to DDX-contaminated material until the EPA provides its formal written reasonable requirements for the processing of Chester Hill material; and</p> <p>(h) On completion of the PoP test for the Chester Hill material, the licensee must complete and submit to the EPA a Chester Hill PoP Test Report comprising and summarising all run, temperature and stack data.</p> <p>Once the EPA has reviewed the Chester Hill PoP test results, the licensee must not proceed to treat the remaining Chester Hill material until the licensee receives and implements all formal written reasonable requirements of the EPA on the PoP test results.</p>		
<b>Reporting conditions</b>			
R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <p>a) a Statement of Compliance; and</p> <p>b) a Monitoring and Complaints Summary.</p> <p>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.</p>		
R1.2	<p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p>		
R1.3	<p>Where this licence is transferred from the licensee to a new licensee:</p> <p>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</p> <p>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.</p>		
R1.4	<p>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:</p> <p>a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</p> <p>b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.</p>		



Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
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').		
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 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.		
R1.8	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. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period. Note: An application to transfer a licence must be made in the approved form for this purpose.		
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.		
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. Note: The licensee or its employees must notify 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.		
R3.1	Where an authorised officer of the EPA suspects on reasonable grounds that: (a) where this licence applies to premises, an event has occurred at the premises; or (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.		
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.		
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.		
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
R4.1	<p>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 EPL, and must include:</p> <ul style="list-style-type: none"> <li>a) all monitoring data collected for the development during the month, in accordance with the EPL;</li> <li>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;</li> <li>c) results of any SPoP trials undertaken during that month depending on the receipt of analytical results;</li> <li>d) a copy of the Complaints Register for the month and details of how the complaints were addressed and resolved;</li> <li>e) identification of any non-compliance with the conditions of this licence; and</li> <li>f) details of additional measures to be implemented to address any non-compliance with the licence.</li> </ul> <p>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.</p> <p>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.</p>		
R4.2	<p>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.</p>		
<b>General conditions</b>			
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.		
<b>Special conditions</b>			

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
E1.1	<p>One month after DTD commercial operations and excavation works have commenced, and then at least six monthly thereafter (unless otherwise agreed in writing by the EPA), the licensee must commission an independent, qualified person or team to undertake an Environmental Audit of the project. The chosen auditor must consult with the EPA about the Audit scope prior to commencement but the scope is likely to cover:</p> <p>All operations at the Villawood site and a time period that includes:</p> <ul style="list-style-type: none"> <li>(i) for the first audit - the time period from the start of operations; and</li> <li>(ii) for subsequent audits -the time between each audit.</li> </ul> <p>Note: Subsequent audit elements are to be informed by the previous audit/s.</p> <p>The objectives of the Audit are to:</p> <ul style="list-style-type: none"> <li>(i) verify compliance with statutory and regulatory requirements (EPL);</li> <li>(ii) confirm the capability of the plant (DTD) design and operation;</li> <li>(iii) confirm the capability of the plant operators; and</li> <li>(iv) contribute to the improvement of the Project operations and management.</li> </ul> <p>The Audit must:</p> <ul style="list-style-type: none"> <li>(i) Be carried out in accordance with ISO 19011:2002 – Guidelines for Quality and/or Environmental Management Systems Auditing;</li> <li>(ii) Be carried out in accordance with the requirements of the Department of Planning and Infrastructure Project Approval issued in respect to the project, and other licences and approvals that apply to the project;</li> <li>(iii) Assess the environmental performance of the project against: <ul style="list-style-type: none"> <li>(A) Audit Criteria (auditor to consult with EPA);</li> <li>(B) Relevant statutory and regulatory documents;</li> <li>(C) The documents and correspondence submitted to support the Project development application including: <ul style="list-style-type: none"> <li>(a) Project management plans; and</li> <li>(b) Mitigation measures and management practices, commitments and assumptions used in modelling of Project impacts (eg. air quality impact assessment).</li> </ul> </li> </ul> </li> </ul> <p>The Environmental Audit Report must be made available for public inspection on request.</p> <p>An Environmental Audit Report must be submitted to the EPA within one month of the completion of the Audit.</p>		
E2.1	<p>As soon as a Supplementary Proof of Performance Trial is triggered under condition M6.3(f), the licensee must reduce the mass load of DDX to the Dryer to less than 31.4 kilograms per hour (or the agreed mass load for the Chester Hill material if that is being processed) until:</p> <ul style="list-style-type: none"> <li>(a) A Supplementary Proof of Performance Trial is completed and the EPA has amended the licence to include revised operational parameters or other requirements; or</li> <li>(b) The EPA notifies the licensee in writing that a Supplementary Proof of Performance Trial is not required.</li> </ul> <p>Note: The EPA may determine that a Supplementary Proof of Performance Trial is not required if the information provided by the licensee in accordance with condition E2.2, in combination with any additional information provided by the licensee, demonstrates that the nature of the materials being treated has not changed significantly from that tested during the original Proof of Performance Trials.</p>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
E2.2	<p>(1) Within 24 hours of triggering a Supplementary Proof of Performance Trial under condition M6.3(f), the licensee must notify the EPA Manager Sydney Industry within 24 hours via email: Metro.regulation@epa.nsw.gov.au; and</p> <p>(2) The notification required by (1) above must include, but not necessarily be limited to, the following details:</p> <p>(a) contaminant concentrations of all stockpiles within the feed soil building (FSB) and (secure soil facility) SSF;</p> <p>(b) the trends of contaminants within the relevant excavation; (If soil is only sampled and analysed from stockpiled material moved inside the FSB (or SSF), this condition may not be applicable); and</p> <p>(c) the arrangements being implemented, and any further arrangements being proposed, for managing the mass loading of DDX (or the agreed mass load for the Chester Hill material if that is being processed) to the Dryer to comply with the requirements of condition E2.1.</p>		
E2.3	<p>Any Supplementary Proof of Performance Trials, apart from those associated with the Chester Hill material, occurring during Commercial Operations (Stage 4) must be structured, as necessary, to prove the DTD Plant's ability to meet all EPA performance and emission criteria when operating with a higher contaminant loading or with materials that are significantly different from those tested during the original Proof of Performance Trials.</p> <p>In addition, Supplementary Proof of Performance Trials must:</p> <p>(a) consist of a minimum of two full runs;</p> <p>(b) be carried out in a manner consistent with the original Proof of Performance test; and</p> <p>(c) test the effectiveness of emission controls on the DTD Plant for dealing with the higher contaminant loading or with materials that are significantly different from those tested during the original Proof of Performance Trials.</p>		

**ATTACHMENT 3: VILLAWOOD SOIL REMEDIATION PROJECT COMPLIANCE STATUS JANUARY 2020 – PROJECT APPROVAL 09\_0147**

- Compliance achieved
- Potential non compliance
- Non compliance

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
<b>Project Approval 09_0147</b>			
<b>Schedule 2 Administrative conditions</b>			
1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, Operation or decommissioning of the project.		
2	The Proponent shall carry out the project generally in accordance with the: a) EA; b) Statement of Commitments (see Appendix A); c) Plans set out in Appendix B, Appendix C, Appendix D and Appendix E; d) Submissions Report; e) approved Technology Assessment (see condition 9 in this Schedule); f) approved Remedial Action Plan (see condition 1 of Schedule 3); g) Modification application 09_0147 Mod 1 prepared by Orica Australia and dated 25 February 2013; h) Modification application 09_0147 Mod 2 prepared by Orica Australia and dated 1 September 2015; and i) conditions of this approval.		
3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.		
4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: a) any reports, plans, programs or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained in these reports, plans, programs or correspondence.		
5	Once the project has physically commenced, the project shall be undertaken over a maximum period of two years from the date of commencement of the works, or the 31 December 2015 (whichever is the latter) unless otherwise agreed with the Secretary. The Proponent shall notify the Secretary in writing upon commencement of Site Establishment.		
6	Nothing in this approval permits the disposal of surplus validated soil from the project outside the site, except for disposal at a licensed facility that can lawfully receive the surplus validated soil.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
7	The Proponent shall only process the following contaminated material on the site: a) material obtained by way of excavations from the site; b) material stored in the Secure Soil Facility in accordance with Environment Protection Licence No 2149; and c) up to 2,000m <sup>3</sup> of material stockpiled on the site from 127 Orchard Road, Chester Hill in accordance with Environment Protection Licence No 2149.		
8	The Proponent shall obtain written approval from the Director-General prior to commencing each of the following stages of work. The Director-General's approval shall only be granted following satisfactory receipt of all documentation required by this approval prior to commencement of each stage. a) Site Establishment; b) CPoP trials; c) Operation; d) decommissioning; and e) site reinstatement. <i>Note: Where stages occur concurrently, the Proponent may obtain approval for commencement of a number of the above stages of work at any one time.</i>		
9	Prior to Site Establishment, the Proponent must prepare and submit to the EPA for approval a Technology Assessment in accordance with the requirements of the: a) National Protocol Approval / Licensing of Trials of Technologies for the Treatment / Disposal of Schedule X Wastes, July 1994; b) National Protocol Approval / Licensing of Commercial-Scale Facilities for the Treatment / Disposal of Schedule X Wastes, July 1994; c) <i>Environmental Hazardous Chemicals Act 1985</i> ; and d) <i>Chemical Control Order in Relation to Scheduled Chemical Wastes 2004</i> .		
10	The Proponent shall engage an independent site auditor accredited under Part 4 of the Contaminated Land Management Act 1997 to audit the remediation project.		
11	The Proponent shall ensure that all new buildings and structures on the site are constructed in accordance with the relevant requirements of the BCA. Notes: <ul style="list-style-type: none"> <li>Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for any building works.</li> <li>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the project.</li> </ul>		
12	With the approval of the Director-General, the Proponent may submit any management plan required by this approval on a progressive basis.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
13	The Proponent may submit a single management plan or report that satisfies the requirements of both the project approval and the EPL, where reporting requirements are similar.		
14	Prior to the commencement of Site Establishment, the Proponent shall: a) prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, gutters, footpaths, etc.) in consultation with Council; and b) submit a copy of this report to the Director-General.		
15	The Proponent shall: a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.		
16	The Proponent shall ensure that all plant and equipment used on the site is: a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner.		
<b>Schedule 3 Specific Environmental Conditions</b>			
1	The Proponent shall ensure that: a) the RAP approved by the site auditor prior to the CPoP trials; and b) the site auditor approves any revisions to the RAP following the CPoP trials and prior to the commencement of operation. Immediately following their completion a copy of the RAPs must be provided to the EPA and the Director-General.		
2	Following treatment the aggregate amount of scheduled chemicals must be <2 mg/kg. Should the Proponent fail to achieve this standard in the CPoP trials, the proponent must seek and obtain approval from the EPA for higher aggregate scheduled chemical waste treatment criteria prior to Operation.		
3	At least one month prior to the commencement of the CPoP trials, the Proponent shall: a) submit a detailed plan or plans for the CPoP trials, to the satisfaction of the Director-General; b) consult with the EPA during preparation of the plan or plans; c) detail procedures for testing the performance of all major process components of the remediation equipment, including the FSB, DTD and ECS; and d) address all relevant requirements of the EPL for the project.		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
4	The Proponent shall carry out CPOp trials prior to Operation. The CPOp trials shall: a) be carried out in accordance with a detailed CPOp plan approved by the Director-General; b) be undertaken by a suitability qualified and experienced person(s); c) demonstrate compliance with the relevant requirements of the EPL, project approval and relevant environmental and safety criteria; d) test performance of all major process components including ECS using no soils, clean soils and contaminated soils representative of the maximum level of contamination proposed to be treated during each stage of the Operation; and e) identify changes to the DTD and ECS that may be necessary to achieve compliance with the EPL.		
5	The Proponent shall carry out supplementary PoP trials if material to be treated during Operation contains levels of contaminants that exceed the criteria established in the original CPOp. Supplementary PoP trials shall: a) consist of a minimum of two full runs; b) be carried out consistent with the original CPOp trials; and c) test the effectiveness of the FSB, DTD and ECS for dealing with the contaminant concentrations that exceed the levels trialled in the original CPOp or were not tested in the original CPOp. NSW Government Department of Planning and Infrastructure 4.		
6	Stockpiles of validated material shall be covered or managed to ensure dust generation and soil runoff are minimised.		
7	The Proponent shall ensure the emissions from the project do not exceed the emissions limits specified in the EPL		
8	The Proponent shall implement all reasonable and feasible measures to minimise dust generated by the project, including minimising emissions from: a) site excavations, b) transport of material; c) stockpiles of material; and d) reinstatement work.		
9	The Proponent shall not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the Protection of the Environment Operations Act 1997.		



Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
10	<p>Prior to Site Establishment, the Proponent must obtain the Director-General's approval of a comprehensive Air Quality Management Plan (AQMP). The AQMP must be prepared in consultation with the EPA and include:</p> <p>a) measures to minimise the fugitive emissions from excavating, handling and treating contamination hot spots including details on methods for dealing with soil contamination variability;</p> <p>b) well-defined triggers for additional air quality measures for excessive fugitive emissions including stop-work during adverse weather;</p> <p>c) management of emissions from the Feed Soil Building and Emissions Control System, including:</p> <ul style="list-style-type: none"> <li>• management during system maintenance or abnormal Operation;</li> <li>• specifications and design details including an appraisal of emission loading;</li> </ul> <p>d) an ECS, stack and fugitive emissions monitoring program that can demonstrate adequate emission control; and</p> <p>e) provision for an off-site air quality monitoring device at a location agreed to by Council.</p>		
11	<p>The Proponent must prepare and implement an Energy Savings Action Plan for the Project to the satisfaction of the Director-General. The plan must:</p> <p>a) identify all reasonable and feasible measures to minimise energy use and greenhouse gas emission on site;</p> <p>b) be submitted to the Director-General prior to construction; and</p> <p>c) be prepared in accordance with the Guidelines for Energy Savings Action Plans (DEUS 2005).</p>		
12	<p>The Proponent shall ensure that all works are carried out in accordance with <i>NSW Work and Health Safety Act 2011</i> and <i>Work and Health Safety Regulation 2011</i> and the requirements of WorkCover NSW.</p>		
13	<p>The Proponent shall ensure that waste is classified in accordance with the NSW DECCW Waste Classification Guidelines (2009) before transporting waste off-site.</p>		
14	<p>The Proponent shall ensure that the transport, handling and disposal of asbestos contaminated material are carried out in accordance with the RAP and the Protection of the Environment Operations Act 1997.</p>		
15	<p>The Proponent shall not cause or permit any waters to be polluted, as defined under Section 120 of the Protection of the Environment Operations Act 1997.</p>		
16	<p>Prior to Site Establishment, the Proponent shall obtain relevant approvals from service providers, including Sydney Water.</p>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
17	<p>Prior to Site Establishment, the Proponent must obtain the Director-General's approval of a Water Management Plan (WMP). The WMP must be prepared in consultation with the NOW, EPA and Council and include:</p> <ul style="list-style-type: none"> <li>a) a risk assessment determining water reuse, environmental and human health criteria, or alternatively a prohibition on any re-use of contaminated or treated water;</li> <li>b) treatment of all potentially contaminated groundwater and surface water arising from the works in a manner that can be discharged to sewer under a trade waste agreement;</li> <li>c) deleted.</li> <li>d) details on water management during heavy rainfall;</li> <li>e) soil erosion and sediment control measures for uncontaminated and remediated areas that comply with <i>Managing Urban Stormwater: Soils and Construction, Volume 1</i>;</li> <li>f) specifications and design details of a water treatment plant;</li> <li>g) a groundwater monitoring program with appropriate trigger levels to ensure the contamination plumes do not migrate further as a result of the remedial work; and</li> <li>h) clear operating procedures and plans in the event that the Wastewater Treatment Plant breaks down and is not operating at full capacity.</li> </ul>		
17A	The Proponent shall contain, transport and dispose off-site any excess contaminated water to an appropriately licensed facility in the event that all other appropriate on-site storage options are exhausted.		
17B	The Proponent shall notify the Department within 7 days of any instances of off-site contaminated water disposal in accordance with Condition 17A.		
18	<p>All chemicals, fuels and oils shall be stored in accordance with:</p> <ul style="list-style-type: none"> <li>a) the requirements of relevant Australian Standards; and</li> <li>b) the Environmental Protection Manual Technical Bulletin Bunding and Spill Management (EPA).</li> </ul>		
19	<p>19. Prior to Site Establishment, the Proponent must obtain the Director-General's approval of a Traffic Management Plan (TMP). The TMP must be prepared in consultation with the Council and include:</p> <ul style="list-style-type: none"> <li>a) a description of the traffic and traffic safety measures to be employed;</li> <li>b) Site Establishment vehicle routes, numbers of trucks, approved hours of Operation, access arrangements and traffic control to minimise traffic impacts from Site Establishment;</li> <li>c) swept path analyses of the longest vehicle entering, manoeuvring on and exiting the site;</li> <li>d) a restriction that requires all vehicles to enter and leave the site in a forward direction;</li> <li>e) a restriction that requires all vehicles to be wholly contained on the site before stopping; and</li> <li>f) details on the number and layout of parking spaces in accordance with Council's Development Control Plan.</li> </ul>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
20	<p>Prior to Site Establishment, the Proponent must obtain the Director-General's approval of a Vegetation Management and Rehabilitation Plan. The plan must be prepared by a suitably qualified expert in consultation with the Council and include:</p> <p>a) protection measures for areas of landscaping vegetation and trees to be retained;</p> <p>b) rehabilitation with locally indigenous species of the 4m high bank that is proposed to be excavated and reinstated;</p> <p>c) implementation of the recommendations in the Bushland Management Plan submitted with the EA;</p> <p>d) consideration of the documents titled:</p> <ul style="list-style-type: none"> <li>• Protecting and restoring Cooks River Castlereagh Ironbark Forest (EPA); and</li> <li>• Best practice guidelines: Cooks River Castlereagh Ironbark Forest (EPA).</li> </ul>		
21	<p>Prior to Site Establishment, the Proponent shall obtain the Director-General's approval of the following studies:</p> <p>a) a <b>Fire Safety Study</b> covering all aspects detailed in the Department's publication <i>Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Guidelines</i> and the New South Wales Government's <i>Best Practice Guidelines for Contaminated Water Retention and Treatment Systems</i>. The Study shall include a strict maintenance schedule for essential services and other safety measures. The Study shall be submitted for the approval of the Commissioner of the NSW Fire Brigades prior to submission to the Director-General</p> <p>b) a <b>Hazard and Operability Study (HAZOP)</b> chaired by an independent, qualified person or team. The independent person or team shall be approved by the Director-General. The Study shall be carried out in accordance with the Department's publication <i>Hazardous Industry Planning Advisory Paper No. 8 - HAZOP Guidelines</i> and shall include consideration of measures to prevent any accidental spills of liquids and/ or liquid wastes on all relevant tanks and equipment used for the storage and handling of liquids or liquid wastes, including associated pipes and hoses; and</p> <p>c) a <b>Construction Safety Study</b> prepared in accordance with the Department's <i>Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines</i></p>		
22	<p>Prior to the CPoP trials, the Proponent shall obtain the Director-General's approval of the following studies:</p> <p>a) an <b>Emergency Plan</b>. The Plan shall be prepared in accordance with the Department's publication <i>Hazardous Industry Planning Advisory Paper No. 1 - Industry Emergency Planning Guidelines</i>. The Plan shall be developed in consultation with relevant emergency services, and incorporated within the Emergency Plan for the Orica site; and</p> <p>b) a <b>Safety Management System</b>, covering all Operations at the development and any associated transport activities involving hazardous materials. The System shall clearly specify all safety-related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to safety procedures. The System shall be developed in accordance with the Department's publication <i>Hazardous Industry Planning Advisory Paper No. 9 - Safety Management</i>.</p>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)																																	
23	<p>Unless otherwise agreed with the Director-General, the Proponent shall comply with the Site Establishment and Operation hours in Table 2 below.</p> <p><i>Table 2: Site Establishment and Operation hours</i></p> <table border="1"> <thead> <tr> <th>Activity</th> <th>Day</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>Site Establishment; and Decommissioning and site reinstatement</td> <td>Monday – Friday</td> <td>7am to 6pm</td> </tr> <tr> <td>Saturday</td> <td></td> <td>8am to 1pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td></td> <td>Nil</td> </tr> <tr> <td>Operational activities external to a building</td> <td>Monday – Friday</td> <td>7am to 6pm</td> </tr> <tr> <td>Saturday</td> <td></td> <td>8am to 1pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td></td> <td>Nil</td> </tr> <tr> <td>Operational activities excluding rock breaking external to a building during NSW Daylight Savings time</td> <td>Monday – Friday</td> <td>7am to 7pm</td> </tr> <tr> <td>Saturday</td> <td></td> <td>8am to 1pm</td> </tr> <tr> <td>Sunday and Public Holidays</td> <td></td> <td>Nil</td> </tr> <tr> <td>Operational activities within a building and Operation of the DTD, WTP and ECS.</td> <td>Monday – Sunday</td> <td>Any time</td> </tr> </tbody> </table>	Activity	Day	Time	Site Establishment; and Decommissioning and site reinstatement	Monday – Friday	7am to 6pm	Saturday		8am to 1pm	Sunday and Public Holidays		Nil	Operational activities external to a building	Monday – Friday	7am to 6pm	Saturday		8am to 1pm	Sunday and Public Holidays		Nil	Operational activities excluding rock breaking external to a building during NSW Daylight Savings time	Monday – Friday	7am to 7pm	Saturday		8am to 1pm	Sunday and Public Holidays		Nil	Operational activities within a building and Operation of the DTD, WTP and ECS.	Monday – Sunday	Any time		
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24	<p>The Proponent must ensure that operational noise generated from the Project does not exceed the noise limits presented in Table 3. Noise generated by the Project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.</p> <p><i>Table 3: Noise Limits</i></p> <table border="1"> <thead> <tr> <th>Location</th> <th>Day LAeq 15 min</th> <th>Evening shoulder LAeq 15 min</th> <th>Evening LAeq 15 min</th> <th>Night LAeq 15 min</th> <th>Night LA1 1 min</th> </tr> </thead> <tbody> <tr> <td>212 Waldron Road</td> <td>54</td> <td>43</td> <td>39</td> <td>38</td> <td>45</td> </tr> <tr> <td>183 Miller Street</td> <td>48</td> <td>41</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>190 Virgil Avenue</td> <td>49</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> <tr> <td>Epic Place Detention Centre</td> <td>61</td> <td>49</td> <td>39</td> <td>35</td> <td>45</td> </tr> </tbody> </table>	Location	Day LAeq 15 min	Evening shoulder LAeq 15 min	Evening LAeq 15 min	Night LAeq 15 min	Night LA1 1 min	212 Waldron Road	54	43	39	38	45	183 Miller Street	48	41	35	35	45	190 Virgil Avenue	49	40	40	40	45	Epic Place Detention Centre	61	49	39	35	45					
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25	<p>The Proponent shall:</p> <ul style="list-style-type: none"> <li>a) implement the noise and vibration mitigation measures outlined in the EA;</li> <li>b) monitor noise and vibration to ensure compliance with the EPL and project approval;</li> <li>c) implement additional reasonable and feasible noise and vibration mitigation measures in response to exceedance of limits and/or noise complaints;</li> <li>d) notify the detention centre in advance of any use of a hydraulic hammer; and</li> <li>e) include planned respite periods during any use of a hydraulic hammer.</li> </ul>		
26	<p>Asbestos Management</p> <p>If treated soil is found to contain asbestos. the Proponent shall. with the agreement of the EPA, Site Auditor, and Council, reuse the treated soil in areas of the site that are unlikely to be disturbed in the future, subject to the following:</p> <ul style="list-style-type: none"> <li>a) placement of a cover lavel of 300mm of imported virgin excavated natural material or excavated natural material. separated from the underlying soils by a qeofabric marker layer across all areas of the site where potentially asbestos-impacted directly heated thermal desorption treated soils have been placed (i.e. the western stockpile area), and all areas of the site where asbestos-containing materials may be present in site soils that were not required to be remediated under the Remedial Action Plan because they already met the site risk-based criteria in respect of chemical contaminants;</li> <li>b) contouring of the site surface and construction of drainage works to minimise erosion of the soil cover bv runoff;</li> <li>c) stabilisation of the site surface to minimise erosion of the cover by wind: and</li> <li>d) documentation of these activities in the remediation validation report, long-term Environmental Management Plan (EMP). Site Audit Report and other relevant documentation.</li> </ul>		
<b>Schedule 4 Environmental Management, Reporting and Review</b>			
1	<p>Prior to Site Establishment, the Proponent shall obtain the Director-General's approval of a Site Establishment Environmental Management Plan. The plan must:</p> <ul style="list-style-type: none"> <li>a) address all environmental issues with the approved Site Establishment;</li> <li>b) address any relevant condition of this approval; and</li> <li>c) consolidate relevant management plans that are required by this approval.</li> </ul>		
2	<p>Prior to Operation, the Proponent shall obtain the Director-General's approval of an Operation Environmental Management Plan. The plan must:</p> <ul style="list-style-type: none"> <li>a) address all environmental issues with the approved Operation;</li> <li>b) address any relevant condition of this approval; and</li> <li>c) consolidate relevant management plans that are required by this approval.</li> </ul>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
3	<p>The Proponent shall provide to the Director-General and the EPA, a Monthly Report, throughout all stages of the project. The Report shall review the performance of the project against the requirements of this approval and the EPL, and shall include:</p> <ul style="list-style-type: none"> <li>a) all monitoring data collected for the project during the month;</li> <li>b) results of all CPOp trials in the Monthly Report following each trial or trials;</li> <li>c) a copy of a complaints register for the month and details of how these complaints were addressed and resolved;</li> <li>d) identification of any non-compliance with the conditions of this approval and the EPL; and</li> <li>e) details of additional measures to be implemented to address any non-compliance.</li> </ul> <p>The first report shall be submitted within one month of the commencement of Site Establishment, and every month thereafter, or as otherwise agreed by the Director-General. The Proponent shall make available copies of Monthly Reports to the public on request.</p>		
4	<p>Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent must notify the Department and EPA of the exceedance/incident.</p>		
5	<p>Within 6 days of notifying the Department and EPA, the Proponent must provide a written report to the Department and EPA that:</p> <ul style="list-style-type: none"> <li>a) describes the date, time, and nature of the incident;</li> <li>b) identifies the cause, or likely cause, of the incident; and</li> <li>c) describes what action has been taken to date address the incident and what actions are proposed to be implemented in the future to either address the consequences of the incident or avoid a recurrence of the incident.</li> </ul>		
6	<p>The Proponent shall provide a Validation Report to the Director-General and the EPA following decommissioning and reinstatement works. The Validation Report shall be prepared in accordance with the RAP. The Validation Report shall be reviewed and approved by the Site Auditor.</p>		
7	<p>The Proponent shall provide Site Audit Statement(s) and Site Audit Report(s) prepared by the Site Auditor to the Director-General and the EPA upon completion of remediation.</p>		
8	<p>Prior to Site Establishment, the Proponent shall engage an independent suitably qualified and experienced expert to provide independent technical advice to interested stakeholders about the project.</p> <p>The Proponent shall notify the Director-General and the EPA of the name and contact details of the appointed independent expert.</p> <p>The Proponent shall bear the cost of the IE(s) and make resources available to enable the IE(s) to respond to reasonable information requests from interested stakeholders for the duration of the project.</p>		
9	<p>The Proponent shall undertake an Independent Environmental Audit of the project at any time, if directed by the Director-General. The Proponent shall appoint an independent environmental auditor approved by the Director-General and commission and pay the full cost of the independent environmental audit.</p>		

Cond / Ref	Condition Requirement Detail	Compliance Status	Action (if potential / non-compliance)
10	<p>Long-Term Environmental Management Plan</p> <p>The Proponent shall prepare a Long-Term Environmental Management Plan (EMP) for the approval of the Site Auditor. The EMP is to document how the site is to be managed into the future and, amongst other provisions is to include:</p> <ul style="list-style-type: none"> <li>a) a detailed survey which defines the extent of potential asbestos- impacted soil on the site:</li> <li>b) a description of the measures to be implemented to ensure the ongoing availability of the EMP for current and future owners of the site: and</li> <li>c) provisions which prevent future disturbance of site soils or any intrusive activities except under a specific Construction Environmental Management Plan (CEMP) which is also to be approved by a Site Auditor.</li> </ul> <p>The EMP shall be prepared by a suitably qualified and experienced person in consultation with the EPA within once month of the completion of the remediation works, or as otherwise agreed with the Secretary.</p> <p>A copy of the approved EMP shall be submitted to the Secretary, the EPA and Council in conjunction with the notice of completion required under Clause 17 of State Environmental Planning Policy no 55 – Remediation of Land.</p>		
<b>Community Consultation</b>			
1	<p>From the commencement of Site Establishment, the Proponent shall make the following information publicly available on its website as it is progressively required by the approval:</p> <ul style="list-style-type: none"> <li>a) a copy of all current statutory approvals;</li> <li>b) a copy of the current plans required under this approval;</li> <li>c) a summary of the monitoring results of the Project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;</li> <li>d) a complaints register, which is to be updated on a monthly basis;</li> <li>e) a copy of any Independent Environmental Audit (if required), and the Proponent’s response to the recommendations in any audit; and</li> <li>f) any other matter required by the Director-General.</li> </ul>		
2	The Proponent shall continue a community consultation process for the duration of the project.		
3	The Proponent shall prepare and implement a Community Consultation Plan in consultation with Council.		

**ATTACHMENT 4: VILLAWOOD SOIL REMEDIATION PROJECT COMPLIANCE STATUS JANUARY 2020 – STATEMENT OF COMMITMENTS**

- Compliance achieved
- Potential non compliance
- Non compliance

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
<b>Statement of Commitments</b>			
Statutory requirements			
1	Prior to the issue of an Environment Protection Licence (EPL) for the project, the EPA shall be provided with sufficient and appropriate documentation for a Technology Assessment to be undertaken by the EPA in accordance with the National Protocol Approval/Licensing of Technologies for the Treatment/Disposal of Schedule X Wastes and the National Protocol Approval/Licensing of Commercial-Scale Facilities for the Treatment/Disposal of Schedule X Wastes. Orica shall construct and operate the development generally in accordance with the specification outlined in the Technology Assessment document provided to the EPA. (Note that the TA is plant specific).		
Soil remediation requirements			
2	Materials shall only be processed through the DTD Plant where those materials have matrices, contaminant constituents and contaminant concentrations which have been proven as acceptable for processing during Commissioning and Proof of Performance (CPoP) trials. <ul style="list-style-type: none"> <li>Orica shall manage all materials and wastes containing Scheduled Chemical Waste (SCW) and Polychlorinated Biphenyls (PCBs) in accordance with the applicable Chemical Control Orders, or in accordance with a licence under the <i>Environmentally Hazardous Chemicals Act 1985</i>. (Note: dioxins and furans and PCBs are not compounds of concern from the site).</li> </ul>		
3	Orica shall treat all materials on the site that do not meet the Remediation Goals detailed in the Remedial Action Plan (RAP), and any scheduled wastes generated by the treatment process until the materials / wastes meet: <ul style="list-style-type: none"> <li>A statistical average dioxin, furan and dioxin-like PCB WHO-TWQ of less than 1 µg/kg;</li> <li>An aggregate concentration of SCW constituents of less than 2 mg/kg;</li> <li>A PCB concentration of less than 2 mg/kg; and</li> <li>The Remediation Goals specified in the RAP.</li> </ul> <p><b>Note:</b> If the treatment criteria in the DGRs cannot be practically achieved due to technical or economic limitations, an alternative best practice standard would be proposed to EPA for their approval.</p> <p><b>Note:</b> dioxins and furans and PCBs are not compounds of concern from the site.</p>		
Air quality			
4	Plant associated with the remediation works shall be selected and operated so that stack emissions are below the maximum allowable emission concentrations discussed in <b>Section 8.3</b> of the Environmental Assessment (EA), or if that is not possible to an agreed best practice standard.		



Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
5	<p>The application of best practice to minimise emissions to the maximum extent practicable, however low concentrations may be, will include:</p> <ul style="list-style-type: none"> <li>• Excavating only one remediation areas at any time;</li> <li>• Excavating at a slow rate;</li> <li>• Minimising the exposed surface of contaminated soil during excavation;</li> <li>• Covering exposed surfaces of contaminated soil at the end of each day;</li> <li>• Minimising stockpiles of excavated contaminated soil;</li> <li>• Covering loads during transport of contaminated soil;</li> <li>• Undertaking pre-treatment of contaminated soil in an enclosure with an emission control system;</li> <li>• Operating the emission control system noted above to minimize emissions from the building;</li> <li>• Treating the contaminants in a plant with a high inherent destruction efficiency; and</li> <li>• Operating the emission control system of the plant to maximise destruction efficiency of contaminants.</li> </ul>		
6	Feed soil preparation activities including crushing, screening and mixing shall be completely enclosed within the Feed Soil Building (FSB).		
7	Orica shall design, construct, operate and maintain a ventilation system for the FSB so that air flow is drawn into the buildings and discharged via the emission control systems.		
8	The thermal oxidiser (being the major piece of emission control equipment) shall be designed to meet the requirements of best practice in terms of destruction efficiency and stack emissions		
9	<p>Air monitoring/air discharge point sources for monitoring will include the:</p> <ul style="list-style-type: none"> <li>• DTD Plant exhaust stack; and</li> <li>• FSB emission control system stack.</li> </ul>		
10	Orica shall prepare and submit a Commissioning and Proof of Performance (CPoP) Plan to EPA for approval prior to commencing Operations on the site. The CPoP Plan shall provide a program to quantitatively confirm that that facility will meet the environmental performance described in the EA.		
11	On approval of the EPA Orica shall undertake CPoP trials in accordance with the approved CPoP Plan.		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
12	<p>During CPoP trials, Orica shall undertake monitoring of parameters and compounds for sources below as required and within 28 days of completion of the commissioning trials shall submit a report EPA analysing the results of monitoring during the commissioning trials and providing justification for the maximum concentration limits and reference conditions that will apply to the operation of the project.</p> <ul style="list-style-type: none"> <li>• Monitoring of FSB and DTD Plant and emission control system components for specified flows, pressures and temperatures;</li> <li>• Continuous monitoring of the FSB emission control system for parameters such as relative humidity, pressure, temperature and volatile organic compounds (VOCs);</li> <li>• Continuous monitoring of the DTD Plant stack for flow rate, temperature, oxygen, oxides of nitrogen (NOx) and carbon monoxide (CO) concentrations (CO provides feedback on the efficiency of combustion in the thermal oxidiser); and</li> <li>• Periodic discrete sampling of FSB and DTD stacks for a range of combustion pollutants and/or contaminants.</li> </ul>		
13	<p>During operation of the project, a monitoring program shall be designed for each of the FSB and DTD emission control systems and stacks. The monitoring programs shall include the parameters outlined above in Comment. 12.</p>		
14	<p>The treatment plant stacks shall be fitted with sampling port(s) in accordance with the relevant Australian Standard and safe access provided for stack sampling.</p>		
15	<p>An ambient monitoring program shall be conducted to monitor fugitive emissions from the treatment plant to ensure that all site emissions limits are complied with.</p>		
16	<p>Orica shall design, construct, commission, operate and maintain the DTD plant to ensure that the concentration of pollutants does not exceed the maximum allowable discharge concentration limit specified in the EPL.</p>		
17	<p>Orica shall design, construct, operate and maintain all stacks associated with the project in accordance with detail provided in this EA as well as good engineering practice in order to minimise the effects of stack tip downwash and building wake effects on ground-level air pollutant concentrations.</p>		
18	<p>Orica shall not permit any offensive odour to be emitted from the remediation works beyond the boundary of the site, as defined under section 129 of the Protection of the Environment Operations Act 1997.</p>		
19	<p>Orica shall design, construct, commission, operate, maintain and decommission the project in a manner that minimises or prevents dust emissions from the Site. Orica shall seek to ensure that the system is designed such that there are no visible dust emissions from the Site.</p>		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
20	<p>A Construction Environmental Management Plan (CEMP) shall be prepared in respect of the proposed remediation works detailing mitigation measures to be implemented during the construction period including:</p> <ul style="list-style-type: none"> <li>• Access to the Site via existing sealed roadways only;</li> <li>• Water (or other appropriate control measure) shall be used to suppress particles potentially generated during the erection of boundary fences, barriers and screens;</li> <li>• Land clearing activities shall be controlled using water suppression where necessary;</li> <li>• Areas of disturbed soil shall be minimised during the construction period;</li> <li>• Water (or other appropriate control measure) shall be used to suppress dust emissions during dry windy periods (as required);</li> <li>• The height from which dust generating material is dropped shall be minimised;</li> <li>• Loaded trucks carrying contaminated materials shall be covered at all times;</li> <li>• The cutting/grinding of materials on site shall be kept to a minimum. Where cutting or grinding is necessary equipment and techniques to minimise dust will be used;</li> <li>• Soil stockpiles shall be treated with surface binding agents or sealed by seeding or surfacing with vegetation or covered with secured tarpaulins or other suitable material;</li> <li>• Heavily used areas shall be covered, sealed or paved;</li> <li>• Paved areas shall be swept when necessary using a vacuum sweeper;</li> <li>• Wheels of site plant and vehicles shall be cleaned to minimise the spread of mud onto surrounding roads;</li> <li>• Exhaust emissions from mobile plant shall not discharge straight at the ground;</li> <li>• Construction plant and vehicles will be well maintained and regularly serviced. Visible smoke from plant should be avoided. Defective plant will not be used;</li> <li>• Engines shall be switched off when vehicles are not in use and refuelling areas will be away from areas of public access; and</li> <li>• Loading and unloading shall take place within the Site.</li> </ul>		
21	Waste removed from site will be disposed to an appropriately licensed waste facility.		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
Noise			
22	<p>The DTD Plant and associated plant shall be sourced / designed with the objective of achieving the noise goals set out in Orica's EPL. The following general mitigation measures shall be considered in the detailed design of the plant in order to achieve the required noise reductions.</p> <ul style="list-style-type: none"> <li>• Plant layout and orientation shall be designed to minimise noise impacts.</li> <li>• ECS and DTD Plant fans to incorporate silencers and enclosures to achieve appropriate noise reductions. Specifically, an acoustic enclosure or silencer will be required on the DTD Plant fan as dictated by the Noise Modelling Assessment (Appendix J).</li> <li>• Solid barriers shall be incorporated, wherever reasonably practicable at noise sources at a height.</li> <li>• Plant items shall be located at lower heights where reasonably practicable such that noise shielding from the FSB is maximised.</li> <li>• A flexible connection may be used between the fan and ductwork in the DTD Plant stack. The connection may be encased to control break out noise.</li> <li>• Ductwork, including the stacks shall be acoustically lagged if required. This shall be confirmed with measurement once operational and lagging retrofitted if needed.</li> </ul> <p>Note: Details of the above measures and noise reductions achieved shall be provided to the Department of Planning (DoP) during the detailed design stage of the project.</p>		
23	<p>Orica shall prepare a Noise and Vibration Management Plan (NVMP) in respect of the project addressing the following:</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• Management of vibration during any use of piling rig and roller;</li> <li>• Notification to all those impacted by works likely to cause excessive vibration and noise (e.g. if sheet piling is required); and</li> <li>• Provision of a 24 hour community hotline to allow the local community to register complaints regarding noise at the Site.</li> </ul>		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
24	<p>Orica shall ensure that works on the Site are carried out in accordance with the following:</p> <ul style="list-style-type: none"> <li>• All excavation operations shall be undertaken between the hours of 7.00am and 7.00pm from Monday to Saturday;</li> <li>• All other works including stockpile management, maintenance of drainage and environmental control measures, and the maintenance of haul roads will be undertaken between the hours of 7.00am and 7.00pm from Monday to Saturday, unless prior approval has been granted by BCC;</li> <li>• Operations undertaken within the FSB (screening, crushing, blending of stockpiled materials and feeding material to the DTD Plant) and the operation of the DTD Plant and FSB ECS may be undertaken 24 hours per day, seven days per week;</li> <li>• All equipment and plant used on-site will be maintained in good order in accordance with manufacturers recommendations; and</li> <li>• All construction vehicles will enter and exit the Site in accordance with the Site entry controls specified in the EA and RAP prepared for the project.</li> </ul>		
Social			
25	<p>An ongoing consultation program will be undertaken with the local community for the duration of the project. A Community Liaison Plan will be prepared for the project including the following key components;</p> <ul style="list-style-type: none"> <li>• A record shall be prepared identifying all key stakeholders in the proposed remediation works. Over the course of the project, the record shall be updated regularly and will be used to document communications with key stakeholders and interested parties.</li> <li>• Appropriate communications tools will be used to distribute information to identified stakeholders prior to establishment of works at the Site. The tools shall contain information relating to the proposed remediation works, a project program showing the anticipated duration of works, opportunities for key stakeholder participation and contact details for more information.</li> <li>• Regular meetings, focusing solely on the remediation of the site, will be held to disseminate information on the progress of the works including information on incidents, issues and operational conditions, and be attended by technical specialists, where necessary, to address any specific concerns or issues that may arise. These meetings will be open for anyone to attend.</li> <li>• Newsletters shall be prepared and distributed to key stakeholders to communicate project information. The newsletters shall provide an avenue for communicating specific information on the progress of the remediation works where appropriate. Feedback on the information shall be collected via the consultation methods described above.</li> <li>• A dedicated 24-hour 1800 telephone number/service shall be established to answer queries on the project and to receive comments and shall be available throughout the duration of the project.</li> <li>• A notice board shall be posted at the main site entrance containing information about the project and contact details.</li> </ul>		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
Traffic			
26	<p>A Traffic Management Plan (TMP) shall be prepared for the project prior to site establishment and construction. The TMP shall include:</p> <ul style="list-style-type: none"> <li>• The use of existing workforce car parking and heavy vehicle unloading areas within the Site;</li> <li>• Designated haulage routes within the site for heavy vehicle movements;</li> <li>• Designated haulage routes within the BCC LGA; and</li> <li>• Compliance with designated speed limits and load limits specified for heavy vehicle routes.</li> </ul>		
Water and soils			
27	<p>Orica shall apply all practicable measures to reduce the quantity of dirty water, and the concentration of contaminants contained in dirty water, produced as a result of site establishment, construction, operation and decommissioning works for the project.</p>		
28	<p>Orica shall take all practicable measures to:</p> <ul style="list-style-type: none"> <li>• Minimise soil erosion and the discharge of sediments and pollutants from the Site; and</li> <li>• Reduce both the concentration of contaminants contained in dirty water and the total quantity of dirty water produced as a result of site establishment, construction, operation and decommissioning works for the project.</li> </ul>		
29	<p>In relation to the management of the water cycle on the Site, Orica shall implement measures designed to ensure that:</p> <ul style="list-style-type: none"> <li>• Stormwater from contaminated areas within the Site is transferred to the on-site water treatment plant associated with the project and is not permitted to contaminate clean areas of the Site;</li> <li>• All contaminated water within the Site is collected and treated in an on-site water treatment plant, or disposed of off-site to a wastewater treatment facility lawfully permitted to accept such waste;</li> <li>• Only uncontaminated rainwater would be permitted to flow to stormwater drains; and</li> <li>• Water to be reused on the Site meets the criteria specified in the Environmental Management Plan developed in accordance with Commitment 43.</li> </ul>		
30	<p>Orica shall ensure that material that is to be stockpiled on site is stabilised to prevent contamination, erosion or dispersal of the material.</p>		
31	<p>With respect to the reuse of wastewater Orica shall ensure that:</p> <ul style="list-style-type: none"> <li>• Wastewater/effluent is applied to the Site strictly in accordance with an approved Environmental Management Plan (EMP) as described in Commitment 43 with respect to water volumes, quantities and application areas;</li> <li>• Reuse of contaminated water/effluent on site meets the requirements of NSW Health and WorkCover NSW as relevant;</li> <li>• Contaminated water/effluent to be reused on site is tested and verified as safe for site workers and local residents, and will not contaminate clean areas.</li> </ul>		
32	<p>In the event that wastewater from the Site is to be discharged to sewer, Orica shall establish a (or modify an existing) Trade Waste Agreement with Sydney Water Corporation, which will regulate the allowable wastewater discharges.</p>		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
Hazard and risk			
33	Prior to the commencement of commissioning of the treatment plant (DTD Plant) as part of the Technology Assessment, Orica shall submit to the Director-General a full description of the treatment process, together with process flow diagrams and other relevant information at various points in the process, such as temperatures, pressures, flow rates and contaminants with their physical state.		
34	Prior to the commencement of commissioning of the development, in accordance with an approved CPOP Program, the following documents will be prepared: <ul style="list-style-type: none"> <li>an Emergency Plan for the development. The Plan shall be prepared in accordance with the Department's publication <i>Hazardous Industry Planning Advisory Paper No. 1 – Industry Emergency Planning Guidelines</i>. The Plan shall be developed in consultation with relevant emergency services, community, neighbours and the EPA;</li> <li>a Safety Management System, covering all parts of the project and any associated transport activities involving hazardous materials. The System shall clearly specify all safety-related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to safety procedures. The System shall be developed in accordance with the Department's publication <i>Hazardous Industry Planning Advisory Paper No. 9 – Safety Management</i>.</li> </ul>		
35	Orica shall successfully rehearse the Emergency Plan referred to under SoC32 of this Statement of Commitments on at least one occasion during the commissioning of the treatment plant or proof of performance trials. The rehearsal shall include a simulated response to a full-scale emergency at the development and shall involve relevant key stakeholders.		
36	Prior to Site Establishment, appropriate Occupational Health and Safety (OH&S) and planning activities will be completed, documented and approved, where necessary. These activities include: <ul style="list-style-type: none"> <li>Verifying the OH&amp;S training of all employees and subcontractors scheduled to work at the Site;</li> <li>Medical examinations for all employees and subcontractors who are to work at the Site and are exposed to contamination;</li> <li>Documented attendance at an on-site safety induction briefing for all employees and subcontractors scheduled to work at the Site;</li> <li>Appointment of a Site Safety Officer (SSO);</li> <li>Provision of first aid and medical facilities and supplies at the Site;</li> <li>The procurement, provision and training in the use of PPE detailed in the OH&amp;S Plan and works procedures;</li> <li>Completion of all quality assurance (QA) and maintenance checks on all electrical equipment, plant and tools to be used at the Site at the commencement of works. Scheduled ongoing checks will be performed on all plant and equipment brought on-site;</li> <li>Installation of decontamination units at the specified areas on the Site, as detailed in the OH&amp;S Plan and the design drawings; and</li> <li>All activities required to provide a safe and healthy work environment for all personnel who work or visit the Site.</li> </ul>		
37	Prior to Site Establishment, WorkCover NSW shall be notified of the proposed commencement date for site works. WorkCover NSW will be provided a copy of the OH&S Plan.		

Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
38	<p>Prior to the commencement of construction on the Site, the following studies shall be prepared:</p> <ul style="list-style-type: none"> <li>• a Fire Safety Study for the project, covering all aspects detailed in the Department's publication Hazardous Industry Planning Advisory Paper No. 2 – Fire Safety Guidelines and the NSW Government's Best Practice Guidelines for Contaminated Water Retention and Treatment Systems. The Study shall include a strict maintenance schedule for essential services and other safety measures. The Study shall be submitted for the approval of the Commissioner of the NSW Fire Brigades prior to submission to the Director-General;</li> <li>• a Hazard and Operability Study (HAZOP) and Control Hazard and Operability Study (CHAZOP) of the project chaired by an independent, qualified person or team. The independent person or team shall be approved by the Director-General. The Study shall be carried out in accordance with the Department's publication Hazardous Industry Planning Advisory Paper No 8 – HAZOP Guidelines;</li> <li>• a Construction Safety Study for the project, prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 7 – Construction Safety Standards.</li> </ul>		
39	<p>The construction and operation of the proposed project shall be undertaken using an appropriate OH&amp;SP for construction workers on the Site as well as long-term employees at the facility. The plan shall include the preparation of safe work method statements to address specific activities as outlined within the Preliminary Hazard Analysis (PHA) prepared for the proposal.</p>		
Completion of works			
40	<p>Orica shall engage an independent site auditor accredited under the Contaminated Land Management Act 1997 to endorse the RAP and for the duration of the remediation of the CPWE site, ultimately providing 'sign-off' for the site audit statement.</p>		
Environmental management			
41	<p>Standard operating procedures (SOPs) shall be developed for all plant items relating to the development, including but not limited to procedures for the handling of contaminated soils, operation of major process units and operation of pollution control equipment. The SOPs shall identify critical operating parameters for each item of plant, identifying appropriate operating levels for each parameter and indicating how these parameters will be monitored. Subject to confidentiality, copies of the Procedures shall be made available for inspection by the Director-General, the EPA and the community on request.</p>		
42	<p>Operation of the development shall be conducted strictly in accordance with the SOPs referred to in Commitment 41 at all times. SOPs shall be updated to reflect significant changes to operations that may occur from time to time. Orica shall periodically notify the Director-General and the EPA of any update of the SOPs, indicating the scope and nature of the update.</p>		



Cond / Ref	Condition Commitment Detail	Compliance Status	Action (if potential / non-compliance)
Environmental management plans			
43	<p>Prior to the commencement of site preparation or construction works on the Site, an EMP shall be prepared to identify key issues and to provide a management strategy to effectively manage the environment for the duration of the project and the remediation activities considered to potentially have an adverse impact on the environment. The EMP will address the following key issues:</p> <ul style="list-style-type: none"> <li>• Surface water management;</li> <li>• Management of water in excavations;</li> <li>• Air quality management including dust, gaseous emissions and odours;</li> <li>• Noise management;</li> <li>• Vibration;</li> <li>• Waste management;</li> <li>• Equipment operation; and</li> <li>• Traffic control.</li> </ul>		
Environmental reporting			
44	<p>Orica shall notify the EPA and the Director-General of any environmental incident occurring during the project with actual or potential significant off-site impacts on people or the biophysical environment as soon as practicable after becoming aware of the incident. Orica shall provide full written details of the incident to the EPA and the Director-General within seven days of the date on which the incident occurred. Orica shall make a copy of the report available for public inspection on request.</p>		
45	<p>If Orica identifies, through monitoring or otherwise, an exceedance of environmental or safety limits specified in this SoC or the EPL for the Site, Orica will take all necessary steps to cease and prevent the recurrence of the exceedance (subject to safe shutdown procedures). Unless the exceedance can be rectified within a reasonable period of time, Orica shall notify the Director-General and the EPA of the cause of the required shutdown and identify additional measures to be applied to address the cause of the exceedance and identify additional measures to be applied to address the cause.</p>		
46	<p>Orica shall, throughout the life of the project, prepare and submit to the Director-General and the EPA, a Monthly Performance Report. The Report shall review the performance of the development against the relevant requirements set out in this SoC and the EPL and shall include:</p> <ul style="list-style-type: none"> <li>• All monitoring data collected for the development during the month;</li> <li>• A copy of the complaints register for the month and how these complaints were addressed and resolved;</li> <li>• Identification of any non-compliance with the conditions of approval or the EPL; and</li> <li>• Details of additional measures to be implemented to address any non-compliance with the conditions of approval or the EPL.</li> </ul>		