

Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

Orica Australia Pty Ltd
Level 3, 1 Nicholson Street
EAST MELBOURNE VIC 3002

Our reference: CR68468

6 December 2018

Take notice: that under the *Environmental Protection Act 1994* (the Act) this environmental protection order (EPO) is issued to Orica Australia Pty Ltd (you) by the administering authority. The administering authority is the Chief Executive of Department of Environment and Science (the department).

The EPO is issued in respect to the activities of Orica Australia Pty Ltd on land described as Lot 138 on CTN2123 situated at Reid Road, Yarrow Industrial Estate QLD 4694 (the premises).

A. Grounds

This EPO is issued on the following grounds:

- The department is satisfied, because of an environmental evaluation conducted by Orica, unlawful environmental harm is being, or is likely to be caused, by groundwater contamination from source contaminants ammonia, nitrate and cyanide.

The facts and circumstances forming the basis for these grounds are:

- In accordance with conditions WT13 and WT14 of EA EPPR00872013, Orica submitted a groundwater monitoring plan and REMP report on 29 June 2016.
- A review of the groundwater monitoring plan identified:
 - Increase in free cyanide, ammonia and nitrate concentrations in some of the source wells. There was no assessment whether the increase was from a new or existing source.
 - Increase in ammonia and nitrate concentrations at the site boundary and off-site locations.
 - One of the off-site locations has the potential to discharge to the environment.
 - There is an increase in risk to aquatic organisms in the receiving environment over the 2014 - 2016 period.
- On 13 June 2017, the department issued Orica with an environmental evaluation (EE) (STAT1160) in response to the groundwater contamination identified within the 2016 REMP report.



- The EE broadly required Orica to engage a suitably qualified person to conduct a detailed site investigation, resulting in development of a new conceptual site model, an evaluation of current risk controls used to mitigate groundwater contamination and details of any procedural or structural changes that require implementation to reduce the risk of further groundwater contamination.
- On 15 December 2017, Orica provided the final EE reports to the department. The reports included a Detailed Site Investigation, Conceptual Site Model and a Contamination Action Plan.
- As noted in the Final EE reports and response to the request for further information, there is a risk that contaminated groundwater could be, or already has been discharged into the environment.

B. Requirements

In accordance with this EPO, you are required to do the following:

1. You must engage appropriately qualified person(s) (AQP) to undertake the specific requirements of the EPO which require an AQP.
2. You must:
 - a. Complete the source control works and procedural changes outlined in Section 6.3 and 6.4 of the **Contamination Action Plan** (CAP) in accordance with the timeframes set out in Schedule 1 of this EPO.
 - b. Provide quarterly progress reports of completion of the source control works and procedural changes, the first of which is due within three (3) months of the date of this EPO. The progress reports must continue to be provided until completion of the control works as set out in Schedule 1 of this EPO.
 - c. Engage an AQP to assess the performance of the source control works and procedural changes in achieving the required outcome of preventing the further release of contaminants to groundwater.

The assessment of the performance of the source control works and procedural changes will be determined by assessing the analytical results of the groundwater monitoring events over a period of three (3) years against the performance measures outlined in Table 6.3 of the CAP and included in the annual groundwater report as required by EA EPPR00872013.

Recommendations for any additional monitoring and/or remediation must be included in the annual groundwater report as required by EA EPPR00872013.

3. Within 6 months of the date of this EPO, install and operate additional interception trenches at the boundary of the site in line with the recommendation contained in 7.2.2 of the CAP.

Within 18 months of this EPO, an AQP must assess the performance of the groundwater treatment plant and interception trenches and determine if there is a need for any alternative treatment or disposal options.

The assessment of groundwater treatment plant and interception trenches must be undertaken by reference to the performance measures in Table 7.1 of the CAP and to the remedial objective of reducing the mass flux of ammonia and nitrate migrating off site in groundwater.

A copy of the relevant assessment must be provided to the administering authority within five (5) business days of completion of the assessment.

Within 1 week of becoming aware of alternative treatment or disposal options being required, you must notify the administering authority via written correspondence.

4. Where consent for access is obtained, by (6 months of the date of this EPO) you must operate a remediation program to treat contaminated groundwater located along Reid Road, (Lot 140 Plan CTN2130) in the vicinity of groundwater bores P88, P80 and P61. The groundwater remediation system must be designed to reduce ammonia and nitrate contaminants to concentrations which do not pose an ongoing risk to the environment.

If consent to access Lot 140 Plan CTN2130 is unable to be obtained, you must provide evidence demonstrating that all reasonable and practical measures have been taken to obtain access.

Within 18 months of this EPO, an AQP must complete an assessment of the success of the remediation system in achieving the remedial objective of effectively reducing the contaminant concentrations within the vicinity of Reid Road. A copy of the relevant assessment must be provided to the administering authority within five (5) business days of completion of the assessment.

5. You must manage and remediate the identified cyanide contamination to the extent required by the Remediation Program outlined in Section 8.3 and 8.4 of the CAP.
6. By 6 months of the date of this EPO, you must develop and provide to the department, a remediation plan which identifies possible actions that must be implemented in the event that off-site contaminant levels continue to increase and pose a risk to environmental receptors located north of Hanson Road, at areas adjacent to Lot 138 Plan CTN2123 Lot 140 Plan CTN2130. This plan must be prepared by an AQP and detail actions Orica will undertake to prevent contaminant concentrations impacting environmental receptors located north of Hanson Road.

Definitions and Reference

“An **appropriately qualified person (AQP)**” means a person or persons who has professional qualifications, training, skills and experience relevant to the EPO requirements and can give authoritative assessment, advice and analysis in relation to the EPO requirement using the relevant protocols, standards, methods or literature.

Contamination Action Plan” JBS&G (2018) Orica Australia Pty Ltd. Contamination Action Plan. Yarwun Manufacturing Facility, 30 Reid Road, Yarwun, QLD. 1 March 2018. 52877 112133 R003 Rev 1

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

If you cease to carry out the activity to which this EPO relates, you **must** give written notice of ceasing to carry out the activity to the department within 10 days of ceasing the activity.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

Failure to comply with an EPO is an offence.

- The maximum penalty for an individual for wilfully contravening an EPO is 6250 penalty units.
- The maximum penalty for a corporation for wilfully contravening an EPO is 31,250 penalty units.
- The maximum penalty for an individual for contravening an EPO is 4500 penalty units.
- The maximum penalty for a corporation for contravening an EPO is 22,500 penalty units.

Failure to provide written notice to the buyer is an offence.

- The maximum penalty for an individual is 50 penalty units.
- The maximum penalty for a corporation is 250 penalty units.

Failure to provide written notice within 10 business days of ceasing the activity to the department is an offence.

- The maximum penalty for an individual is 50 penalty units.
- The maximum penalty for a corporation is 250 penalty units.

Section 3 of the Penalties and Sentences Regulation 2015 prescribes the monetary value of a penalty unit.

E. Reviews and appeals

The provisions regarding review of decisions and appeals may be found in sections 519 to 539 of the Act.

A person who is dissatisfied with certain decisions of the department, may be able to apply to have the department review that original decision.

Generally, a request to have a decision reviewed must be made:

- within 10 business days of the decision being notified to the person;
- be supported by enough information to enable the department to decide the application for review; and
- be made using the application for review of an original decision form ([ESR/2015/1573](#)).¹

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

¹ This is the publication number. The publication number can be used as a search term to find the latest version of a publication at <www.ehp.qld.gov.au>.

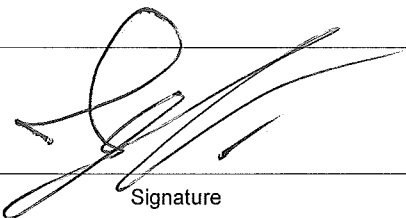
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Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

A person whose interests are or would be adversely affected by a decision of the department may also be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

For further information about reviews and appeals see the information sheet - internal review and appeal to the Planning and Environment Court ([ESR/2015/1572](#)). You may have other legal rights or obligations and should seek your own legal advice.

Should you have any queries in relation to the notice, please contact Kelly Cleary, Principal Environmental Officer on telephone number (07) 4971 6506


Signature

6 December 2018

Date

Tariq Khan

Delegate of the Chief Executive

Department of Environment and Science

Environmental Protection Act 1994

Enquiries:

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SCHEDULE 1 – PHASED IMPLEMENTATION PLAN

Reference: 6.3 – Proposed Source Control Works (Contamination Action Plan – 1 March 2018. 52877 112133 R003 Rev 1)

Location	Project	Description	Completion
AN Complex	Fertiliser Upgrade	Increase capacity of AN Plant No.1 Fertiliser System to minimise the time AN contaminated water is held back in the AN Plant No.1 building and the AN Solution Tanks Bund. This project is under construction and nearing completion.	Operational
AN Complex	AN Solutions Tank Bund Sealing	Reseal the concrete bunding that contains all large AN Solution Tanks to improve the integrity of this bunded area.	12 months
AN Complex	AN Solutions Tank Pump Bund	Re-seal / re-grout the pump bund to improve the integrity of this bunded area.	12 months
AN Complex	Replacement of AN Plant No2 Redissolving Tank	The current AN Plant No.2 Redissolving Tank has historically leaked, although this is within a concrete lining and historical groundwater monitoring downstream of AN Plant No.2 has not indicated any significant source. Repairs have been attempted but overall success of repairs is unknown.	18 months
AN Complex	AN Plant No1 Ground Floor Stage 2	A more significant project to increase the integrity of the AN Plant No1 ground floor.	24 months
CC Complex	Stormwater System Trench Lining Main Cyanide Building	The smaller trenches inside the main Cyanide building are lined with plastic. Integrity is difficult to gauge from a visual inspection only.	6 months
CC Complex	Ground Floor Leak Points	Address any potential leak paths associated with electrostatic earths, concrete covers, concrete lining.	12 months



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Reference: 6.4 - Proposed Procedural Review (Contamination Action Plan - 1 March 2018. 52877 112133 R003 Rev 1)

Location	Project	Description	Completion
AN Complex	AN Plant No1 Ground Floor Stage 1	An operations (procedural & maintenance) based project to keep the ground floor and trench as dry as possible. Scope would include removing any ongoing liquid leaks (eg steam traps), emptying the trench annular space on a regular basis, emptying the trench on a regular basis, operating procedures to minimise the use of liquid in cleaning ground floor, minor repairs to grouting, Regular and ongoing integrity inspection of AN Plant No1 Trench.	12 months
AN Complex	AN Bulk Store Tunnel Drain and Weighbridge Sump	Complete a thorough integrity inspection and undertake repairs on the AN Bulk Store Tunnel and Weighbridge Sump.	18 months
CC Complex	Integrity Inspections	Conduct detailed integrity inspections on the high-risk assets with the Cyanide Plant.	12 months

