

Community SHEC Report

**Kooragang Island
January 2016**

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1 Introduction

This report focuses on activities and events during the month of December 2015 with the exception of community engagement activity which is reported for mid-December to mid-January 2015.

2 Safety and Environmental Reporting

Orica Kooragang Island records safety and environmental incidents and opportunities for improvement in the Enablon reporting system. For each incident, a manager is nominated who ensures that the incident is investigated where required, and actions generated to minimise the potential for recurrence. Actions associated with the incident are captured in a database with responsibilities and scheduled due dates to ensure completion.

Category	December 2015	Summary
Injuries	0	There were no injuries requiring medical treatment during the month.
Environmental Non Compliances	2	Effluent temperature exceeded the Environment Protection Licence limit during two periods. Emissions to effluent during the Ammonia Plant start-up are thought to have been the cause of one event, while the cause of the other event was not able to be identified.
Complaints – received by Orica	4	Two complaints were received in December regarding ammonia odour. The ammonia odour occurred as a result of the mechanical failure of a relief valve. One complaint about noise from the site occurred whilst the Ammonia Plant was being restarted. One complaint involved reported black spots at a property, which were thought to be associated with the fire at the former Stockton service station.
Complaints – received by EPA*	0	Orica did not receive any community complaints via the EPA during December 2015.

* Note: Complaints received by EPA and Orica contacted to investigate.

2.1 December 2015 Environmental Performance

The following section provides information on Orica's compliance during December 2015 with the site's Environment Protection Licence conditions.

2.1.1 Water Emissions

Effluent is process water captured across the site and discharged to the Hunter River North Arm via a licensed discharge point. Daily composite sampling is undertaken for arsenic, chromium VI, zinc, nitrogen and total suspended solids. pH, temperature and flow are monitored continuously and oil and grease twice weekly. During the month all parameters were complied with except effluent temperature, as noted in section 2 above.

Effluent (Monitoring Point 23)	Licence 100% limit	December 2015			
		Minimum	Maximum	Average	Compliance
Arsenic	0.05mg/L	0.01	0.03	0.02	✓
Chromium VI	0.2mg/L	<0.01	<0.01	<0.01	✓
Nitrogen (Total)	2000mg/L	88	231	169	✓
Oil and Grease	10mg/L	0.2	0.3	0.2	✓
pH	6.2 to 9.5	7.1	9.0	7.7	✓
Temperature	Max 43°C	28.7	47.1	35.6	x
Total Suspended Solids	50mg/L	4	12	9	✓
Zinc	5mg/L	<0.1	0.2	0.2	✓
Effluent Volume	4500kL/day	1743	3241	2154	✓

2.1.2 Stormwater

Orica is required to collect a monthly sample, during a rain event of sufficient quantity that it results in a discharge from the site stormwater drains. The results for the month are shown in the table below.

December 2015						
Stormwater drain	Arsenic mg/L	Chromium VI mg/L	Total Nitrogen mg/L	pH	Phosphate mg/L	Total Suspended Solids mg/L
1	<0.01	<0.01	58	6.8	5.1	105
2	0.01	<0.01	12	6.9	2.0	46
3	0.02	0.01	9	6.9	4.5	84
4	<0.01	<0.01	208	6.3	0.6	42
5	<0.01	<0.01	139	6.1	0.5	41
6	<0.01	<0.01	56	6.0	0.7	37

2.1.3 Air Emissions

Orica is required to continuously monitor NOx emissions from the nitric acid plant stacks. During the month the site complied with the licence requirements in relation to NOx emissions.

December 2015				
NOx limits	Licence 99% limit	Hours above limit	Cumulative no. hours above limit (YTD)	No. hours per year allowed above the licence limit
No. 1 Nitric Acid Plant	400ppm	0	21	87.8
No. 2 Nitric Acid Plant	250ppm	3	19	87.8
No. 3 Nitric Acid Plant	200ppm	2	27	87.8

Note: The Environment Protection Licence year runs from 1/04/15 – 31/03/16

2.1.4 Air Quality

Following variation of the site Environment Protection Licence in May 2015 Orica ceased monitoring of NOx at Roxburgh St, Stockton and Total Suspended Particulates at Fullerton St, Stockton on 31 May 2015. Information on Stockton air quality is available in near-real time from <http://www.environment.nsw.gov.au/aqms/newcastlelocalmap.htm>.

3 Environmental Improvements

3.1 Remediation Management Orders

Nutrient Management Order

Orica completed the program of work investigating soil and groundwater nutrient contamination both onsite and offsite. The next stage of the nutrient management order is the assessment of potential environmental and ecological risks, with monitoring to be undertaken in the Hunter River to provide information on the nutrient levels in the river adjacent to the site and at upstream and downstream locations.

Arsenic Management Order

Work to finalise the design of the cap and contain system to address onsite arsenic contamination of soil and groundwater is nearing completion, with design parameters identified and currently being evaluated. Orica has identified a number of potential contract companies to install the wall structure and is currently evaluating their proposals and methodology. The project remains on track for commencement of the installation in late 2016.

3.2 Ammonia Management Improvement Program

Commissioning of the two installed ammonia flares continues, with tests undertaken to evaluate the system prior to the ammonia storage and nitrates flares commencing operation. This work continued during December.

4 Community Engagement Activity – Reported for mid-December 2015 to mid-January 2016

4.1 Chuck Duck Christmas Party for Waratah West Public School

On Tuesday 15 December Orica attended the Chuck Duck Charity Christmas Party for Waratah West Public School at Newcastle Foreshore Park. Orica has been a proud supporter of the charity for many years. The event was covered by NBN television news.

