

Community SHEC Report

**Kooragang Island
May 2016**

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1 Introduction

This report focuses on activities and events during the month of April 2016 with the exception of community engagement activity which is reported for mid-April to mid-May 2016.

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	April 2016	Summary
Injuries	0	There were no injuries requiring medical treatment during the month.
Environmental Non Compliances	0	There were no environmental non compliances recorded during April 2016.
Complaints – received by Orica	1	One community complaint was received during April regarding an industrial odour at Stockton. An investigation did not identify any activities that could have caused this odour. A complaint was received via Fire and Rescue NSW regarding a flame at the site. At the time the ammonia plant was being restarted and process gas being vented had ignited. The ignition of this vented process gas is not abnormal and does not pose any risk to the surrounding community.
Complaints – received by EPA*	2	One complaint was received by the EPA in relation to emissions from the Prill Tower and NOx discharge from NAP2 and 3. The plants were operating normally at the time of the complaint.

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

2.1 April 2016 Environmental Performance

The following section provides information on Orica's compliance during April 2016 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.

Effluent (Monitoring Point 23)	Licence 100% limit	April 2016			
		Minimum	Maximum	Average	Compliance
Arsenic	0.05mg/L	<0.01	0.3	0.1	✓
Chromium VI	0.2mg/L	<0.01	0.01	<0.01	✓
Nitrogen (Total)	2000mg/L	78	273	153	✓
Oil and Grease	10mg/L	0.1	0.7	0.4	✓
pH	6.2 to 9.5	6.8	9.4	7.7	✓
Temperature	Max 43°C	26.4	38.3	34.5	✓
Total Suspended Solids	50mg/L	5	14	8	✓
Zinc	5mg/L	<0.1	0.3	0.1	✓
Effluent Volume	4500kL/day	1810	2845	2354	✓

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.

April 2016						
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	46	9.2	1.7	24
2	<0.01	<0.01	15	8.6	1.6	109
3	0.02	<0.01	9	7.5	4.4	161
4	<0.01	<0.01	574	7.2	0.8	95
5	<0.01	<0.01	192	7.0	0.6	28
6	No stormwater discharge recorded during April 2016					

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.

April 2016				
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	3	3	87.8
No. 2 Nitric Acid Plant	250ppm	4	4	87.8
No. 3 Nitric Acid Plant	200ppm	10	10	87.8

Note: The Environment Protection Licence year runs from 1/04/16 – 31/03/17

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 finalised a report which assessed the potential environmental and ecological risks of nutrient concentrations in groundwater. This concluded that the groundwater beneath the Orica site poses a low risk to the aquatic environment. The next stage of the investigation program is now being developed.

Arsenic Management Order

Work continued on the finalisation of the design of the cap and containment system, which will be documented in a Remediation Action Plan for submission to the EPA. The project remains on track for commencement in late 2016 to ensure the project is completed prior to 31 December 2017.

3.2 Ammonia Management Improvement Program

The Ammonia Management Improvement Program continues, with the ammonia storage flare commencing operation in April 2016. Work is now underway to finalise the design of the ammonia plant flare, which will be commissioned in March 2017 during a major maintenance outage.

The upgrading of infrastructure in the ammonia storage area continued, with electrical infrastructure currently being installed.

4 Community Engagement Activity – Reported for mid-April to mid-May 2016

4.1 Newcastle Art Gallery Site Tour

On Tuesday 19 April staff from the Newcastle Art Gallery, along with a Community Reference Group member, toured the Orica Kooragang Island site. The tour was organised after the Art Gallery hosted an event earlier in the year to celebrate Orica's donation of a John Peart tapestry.

4.2 HSC Chemistry Education Program

On Thursday 28 April the HSC Chemistry Education Program kicked off at the site. The aim of the program is to provide students with a chance to apply their classroom studies to the real world. It includes a practical demonstration of Stage 6 key syllabus outcomes around the manufacturing of ammonia and employment opportunities in the chemical industry.

Our ammonia plant is the only one in the south east region of Australia. This puts us in a unique position to give students in the Hunter a first-hand look at the ammonia manufacturing process. Students go on a guided site tour, attend a presentation by an ammonia engineer and have the chance to talk with recent university graduates working at the facility.



4.3 Grand Masters Hockey World Cup

The Grand Masters Hockey World Cup was held in Newcastle from 3 to 12 May. It's the first time the Orica-sponsored event was held in the southern hemisphere, attracting around 1,800 visitors from over 15 countries.



4.4 Chuck Duck Breakfast Club

On Friday 6 May Orica Kooragang Island representatives attended a Chuck Duck Breakfast BBQ at Raymond Terrace Public School. Orica is a proud sponsor of the Chuck Duck charity, which provides food and other assistance to local schools in need.