

Community SHEC Report

**Kooragang Island
July 2016**

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1 Introduction

This report focuses on activities and events during the month of June 2016 with the exception of community engagement activity which is reported for mid-June to mid-July 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	June 2016	Summary
Injuries	0	There were no injuries requiring medical treatment during the month.
Environmental Non Compliances	1	The volume of sewerage effluent discharged to the site Transpiration Area was exceeded in June as a result of elevated groundwater levels. Plans are currently being developed to repair the system pipework to minimise groundwater ingress.
Complaints – received by Orica	2	One complaint was received regarding an odour in Stockton. An investigation identified that the odour had originated offsite, rather from Orica's operations. A complaint was received from a Stockton resident regarding an orange coloured emission from a site stack. Investigation suggested that the emission was the discharge from the NAP3 stack.
Complaints – received by EPA*	1	EPA received one complaint regarding dust emissions from the AN1 Prill Tower. There were no abnormal plant operations at the time of the complaint.

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

2.1 June 2016 Environmental Performance

The following section provides information on Orica's compliance during June 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	June 2016			
		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	227	167	✓
Oil and Grease	10mg/L	0.2	0.7	0.4	✓
pH	6.2 to 9.5	6.8	9.1	7.4	✓
Temperature	Max 43 °C	24.9	39.5	34.8	✓
Total Suspended Solids	50mg/L	4	12	9	✓
Zinc	5mg/L	0.1	0.2	0.1	✓
Effluent Volume	4500kL/day	1489	2731	2066	✓

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.

June 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	7.6	15.1	262
2	<0.01	<0.01	16	7.7	8.5	185
3	<0.01	<0.01	22	7.4	6.1	238
4	<0.01	<0.01	208	7.3	1.3	103
5	<0.01	<0.01	130	7.4	0.7	61
6	<0.01	<0.01	25	7.5	2.0	19

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.

June 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	8	11	87.8
No. 2 Nitric Acid Plant	250ppm	0	5	87.8
No. 3 Nitric Acid Plant	200ppm	4	15	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 Arsenic Remediation Management Orders

Orica finalised the design of the cap and containment system which will be installed at the site to minimise the migration of arsenic contaminated groundwater from the site. The system will consist of a polygon with low permeability walls that extend 12m below ground level. A low permeability cap will be installed over the containment cell to minimise rain water ingress into the cell. A Remediation Action Plan has been submitted to the EPA which details the design details for the system.

Orica will require development consent for the installation of the cap and containment system and will shortly be submitting an application to the Department of Planning and Environment.

3.2 PM2.5 Management Program

Orica has arranged for CSIRO to analyse air quality monitoring samples collected between April and September 2015 to determine the nitrate concentration. This is one of the tasks in the program to investigate PM2.5 primary ammonium nitrate levels at the Stockton air quality monitoring station. Further analysis will be undertaken on the samples being collected between April and September 2016 once the samples are available for nitrates analysis.

4 Community Engagement Activity – Reported for mid-June to mid-July 2016

4.1 Opera Hunter Sponsorship

Orica Kooragang Island sponsored Opera Hunter's Marriage of Figaro, which was held at the Lake Macquarie Performing Arts Centre from Wednesday 15 to Sunday 26 June. Feedback from the organisers indicated the event was a great success, with all performances being extremely well attended.



4.2 Stockton Bowling Club Defibrillator

On Friday 24 June, the Stockton Bowling Club held a morning tea to celebrate the purchase of a new defibrillator, which was funded by a grant from the Orica Community Investment Program. The defibrillator will be available to the community for use and is especially well located in the heart of the suburb's sporting precinct.

