

Community SHEC Report

**Kooragang Island
September 2016**

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1 Introduction

This report focuses on activities and events during the month of August 2016 with the exception of community engagement activity which is reported for mid-August to mid-September 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	August 2016	Summary
Injuries	0	There were no injuries requiring medical treatment during the month.
Environmental Non Compliances	2	The volume of sewerage effluent discharged to the site Transpiration Area was exceeded twice during August 2016. The source of the elevated flow is currently being investigated.
Complaints – received by Orica	1	There was one community complaint received during the month, with a Stockton resident reporting yellow fallout on their vehicle and other surfaces. An inspection identified that the material was related to insect activity.
Complaints – received by EPA*	0	Orica did not receive any community complaints via the EPA during the month.

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

2.1 August 2016 Environmental Performance

The following section provides information on Orica's compliance during August 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	August 2016			
		Minimum	Maximum	Average	Compliance
Arsenic	0.05mg/L	0.01	0.02	0.02	✓
Chromium VI	0.2mg/L	<0.01	<0.01	<0.01	✓
Nitrogen (Total)	2000mg/L	52	410	138	✓
Oil and Grease	10mg/L	0.2	0.4	0.3	✓
pH	6.2 to 9.5	6.9	8.7	7.7	✓
Temperature	Max 43°C	28.4	39.3	34.3	✓
Total Suspended Solids	50mg/L	5	20	9	✓
Zinc	5mg/L	<0.1	0.2	0.1	✓
Effluent Volume	4500kL/day	1652	2317	1976	✓

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.

August 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	22	6.7	2.7	147
2	<0.01	<0.01	9	6.9	1.8	76
3	0.02	<0.01	8	6.9	3.9	117
4	<0.01	<0.01	341	6.6	1.0	61
5	No Discharge from Catchment 5 during August					
6	No Discharge from Catchment 6 during August					

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.

August 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	2	14	87.8
No. 2 Nitric Acid Plant	250ppm	2	8	87.8
No. 3 Nitric Acid Plant	200ppm	3	21	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 continued to progress the preparation of an environmental assessment to support a development consent for the installation of the cap and containment system.

3.2 PM2.5 Management Program

Analysis of air quality monitoring samples collected between April and September 2015 to determine the nitrate concentration has been completed by CSIRO and assessment of the results is progressing.

3.3 Stormwater Quality Improvement Program

Work to reduce suspended solids in stormwater neared completion in September, with the installation of new kerbing along a number of sections of onsite roadways.

3.4 Ammonia Management Improvement Program

Construction work on the ammonia plant ammonia flare is progressing, with civil and mechanical work underway. The flare will commence operation after the ammonia plant turnaround in 2017.

4 Community Engagement Activity – Reported for mid-August to mid-September 2016

4.1 Site Visitors

Over the past month we have hosted chemical engineering students from the University of Newcastle and members of the Australian and New Zealand Society of Occupational Medicine (ANZSOM).



4.2 Variety of Chefs

On Saturday 27 August we sponsored the Variety of Chefs event held at Newcastle City Hall. The event raised over \$140,000 to help establish a case management service in Newcastle to support local families with a child with a rare illness or condition.

