



**INDEPENDENT TRAFFIC AUDIT REPORT OF
ORICA ANE PRODUCTION FACILITY
AT 1151 GEORGE BOOTH DRIVE, KURRI KURRI**



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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

Development Type: Orica ANE Production Facility

Site Address: 1151 George Booth Drive, Kurri Kurri

Prepared for: Orica - Kurri ANE Plant

Document reference: 210030.01FB

Status	Issue	Prepared By	Checked By	Date
FINAL	A	CM		25 November 2021
FINAL	B	CM		8 March 2022

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1 **PROJECT OVERVIEW**

1.1 **Inception**

Project	Orica ANE Production Facility Independent Traffic Audit
Audit Reference	2021/0030
Audit Reference	Independent Review : Existing Operations
Client	Orica - Kurri ANE Plant
Project Manager(s)	Senior Site Supervisor (Allan McCelland)
Roads Authorities	Orica Roads and Maritime Services (RMS)
Project Manager/Lead Auditor	Craig M ^C Laren
Audit Team	• Lead Auditor Mr Craig M^CLaren (Level 3) Road Safety Auditor identification 02-0263 • Team Member Mr Tom Heal (Level 1) Road Safety Auditor identification 02-1075
Initial Meeting	N/A
Any previous audit conducted	Yes, Three previous audits

1.2 **Reference Materials**

The Independent Traffic Audit of the Orica ANE Production facility has been undertaken with due consideration to the following documents:

1. Instruction Brief as per Schedule 3, Condition 11 of Project Approval MP 09_0090, as modified (the approval).
2. *“Road Safety Audit”*, AUSTROADS Publication No. AP-30/94, SAA HB43-1994.
3. *“Road Safety Audit”*, AUSTROADS Publication No. AP-G30/02, SAI/NZS HB43-2001.
4. Guide to Road Safety Part 6: Managing Road Safety Audits AUSTROADS Publication No. AGRS06/19
5. Guide to Road Safety Part 6A: Implementing Road Safety Audit AUSTROADS Publication No. AGRS06A/19
6. *Richmond Vale ANE Production Facility - Heavy Vehicle Road Transport Protocol* June 2020 (Revision E) prepared by *ORICA*.
7. Kurri RTP PowerPoint Presentation, October 2020.
8. *Annual Environmental Management Report* July 2020 prepared by Orica Kurri ANE Plant Senior Supervisor.
9. *Independent Traffic Audit Report of Orica ANE Production Facility*, 26 September 2018 prepared by *M^CLaren Traffic Engineering*.
10. Ongoing Incident Spreadsheet, *ORICA*.

2 INTRODUCTION

2.1 Description

Mr Craig McLaren, an accredited Level 3 Road Safety Auditor with *McLaren Traffic Engineering*, was commissioned in March 2021 by Orica - Kurri ANE Plant to undertake an Independent Traffic Audit Report of the Orica ANE Production Facility.

The Department of Planning Industry & Environment (DPI&E), in its letter dated 29 March 2021, endorsed *McLaren Traffic Engineering*, refer to a copy of that correspondence in **Annexure A** of this report.

The approved delay in providing this audit was as a consequence of restrictions on travel associated with the Covid-19 pandemic.

The existing site includes an internal roadway (Echidna Drive) and with an intersection to the public road George Booth Drive.

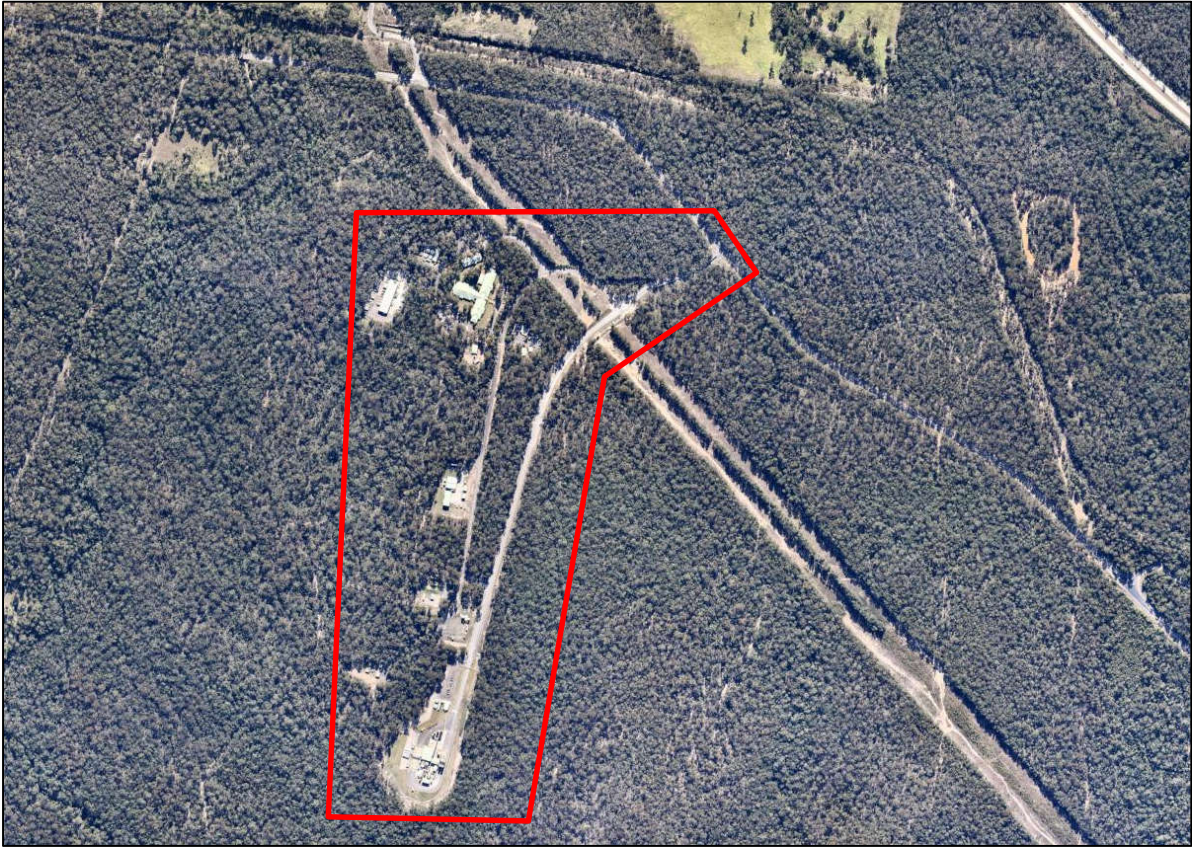
2.2 Purpose

The brief for the Independent Traffic Audit was detailed as part of Schedule 3, Condition 11 of Project Approval MP 09_0090, as modified (the approval) which outlined the following:

- a) have the verification component of the audit undertaken without prior notice to the Proponent;*
- b) assess the impact of the development on the performance of the road network;*
- c) investigate any incidents involving haulage vehicles from the development;*
- d) assess the effectiveness of the Driver's Code of Conduct; and, if necessary,*
- e) recommend measures to reduce or mitigate any adverse (or potentially adverse) impacts.*

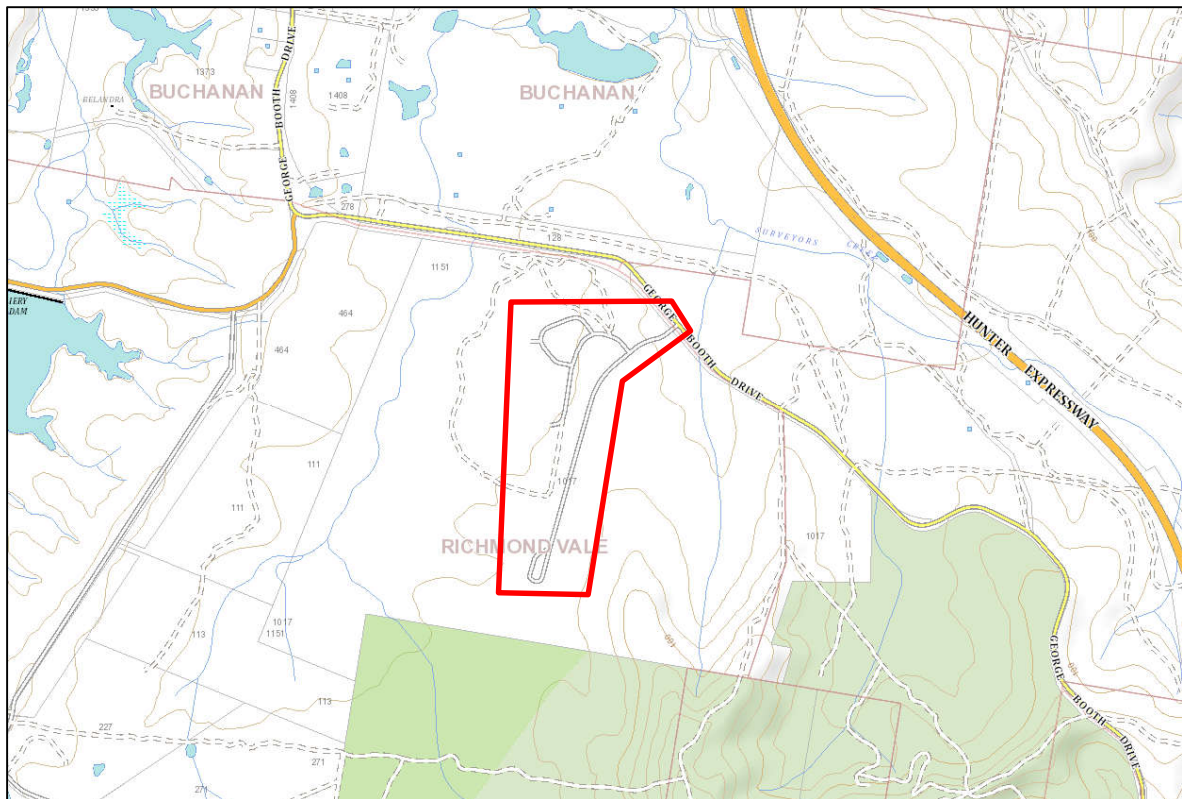
2.3 Existing Site Location & Facilities

The general area covered under this audit is shown in **Figure 1** and **Figure 2** below, whereby the extent of assessment depicted in these figures is for illustrative purposes only and does not reflect the actual limit.



— Site Location

FIGURE 1: SITE CONTEXT – AERIAL PHOTO



— Site Location

FIGURE 2: SITE CONTEXT – STREET MAP

3 ROAD SAFETY AUDIT PROCEDURE

3.1 Scope

The scope of the Independent Traffic Audit is to:

- Assess the impact of the development on the performance of the road network.
- Investigate any incidents involving haulage vehicles from the development, insofar as they have been recorded, monitored and managed by Orica management.
- Assess the effectiveness of the Driver Code of Conduct (DCC).
- Recommend measures (if considered necessary) to reduce or mitigate any adverse (or potentially adverse) impacts.

3.2 Brief Description

In general, the Independent Traffic Audit assesses both the effectiveness of the driver code of conduct and management response to incidents in terms of functional and safe operation with particular regard to vulnerable road users.

The Audit is to identify potential safety hazards with respect to the above features; identify measures to remove or reduce current or future safety problems with regard to the above features and to improve safety risks as a result of the overall Audit findings.

4 **SAFETY AUDIT FINDINGS & RECOMMENDATIONS**

Section 4.1 documents the general findings of the specialised road safety audit. The CV's of the auditors are presented in **Annexure B**.

This audit seeks to assess the existing Driver Code of Conduct (DCC) by recommending safety features or treatments which can be improved or undertaken to reduce safety risks to vehicles and pedestrians.

4.1 **General Findings**

The following sub-sections discuss the relevant findings in accordance with Condition 11 of Project Approval MP 09_0090, as modified, individually.

4.1.1 Audit Verification (Part a)

A site visit was undertaken by the undersigned on Wednesday 3 November 2021 without prior notice to the Proponent.

4.1.2 Impact on Road Network (Part b)

Records of incidents were reviewed by the audit team and discussed with Orica's Senior Site Supervisor at length. No adverse impact on the surrounding road network or intersections from the development was noted from the records.

4.1.3 Haulage Vehicle Incidents (Part c)

A summary of the types of the transport related incidents that occurred over a three (3) year period (2018-2021) is provided in **Table 1** below. The detailed description of all incidents is provided in **Annexure C** for reference.

TABLE 1: INCIDENT SUMMARY 2018-2021

Incident Classification	Number of Incidents
Truck Parked on Public Road	11
Truck travelled contrary to Haulage Route	2
Weight Exceedance	1
Total	14

All incident reporting and actions conducted by Orica management was appropriate with all incidences reported to DPI&E. Drivers were warned of the breach and informed of their duties and conduct such that further breaches would not be tolerated. All incidents were closed off. The undersigned is satisfied that the Road Transport Protocol is actively applied to the transport task by management of the Orica Kurri ANE Plant.

4.1.4 Effectiveness of Driver Code of Conduct (Part d)

The undersigned Level 3 Road Safety Auditor has reviewed the Driver Code of Conduct (Section 3 of the June 2020 (Revision E) of ORICA's *Heavy Vehicle Road Transport Protocol*, reproduced in **Annexure D** for reference) and found that ORICA management effectively applies the DCC at all times with inductions of new drivers and regular monitoring of drivers and their vehicles with respect to the requirements / procedures under this DCC.

4.1.5 Other Matters

It is observed that the Orica Emergency Response Service phone number is advertised via signage at ORICA's site entrance on George Booth Drive, see photos below.



Further, it is noted that the ORICA's Emergency Response Service contact phone number and *Heavy Vehicle Road Transport Protocol* is available on ORICA's website.

4.1.6 Trucks Prohibited from Turning Right Upon Exit into George Booth Drive

Recent signage, since last traffic audit, has been installed at the site entrance from George Booth Drive, Richmond Vale that prohibits trucks from turning right onto the public road when departing the site, as shown in the image below. This is supported to further emphasis the appropriate and controlled departure route consistent with the DCC.



4.1.7 Recommended Measures

In view of the foregoing, no measures are considered necessary to further reduce or mitigate any adverse (or potentially adverse) impacts.

5 CONCLUDING STATEMENT

The Independent Traffic Audit findings are contained in Section 4 of this report, which has concluded that:

- No adverse impact on the surrounding road network or intersections from the development was noted from incidence records. Trucks are prohibited, via recently installed signage, from turning right into George Booth Drive when departing the site.
- All incident reporting and actions conducted by ORICA management was appropriate. Drivers were warned of the breach and informed of their duties and conduct such that further breaches would not be tolerated. All incidents were closed off. The undersigned auditors are satisfied that the Heavy Vehicle Road Transport Protocol is actively applied to the transport task by management of the Orica Kurri ANE Plant.
- The undersigned auditors have reviewed the Driver Code of Conduct (Section 3 of the June 2020 (Revision E) of ORICA's *Heavy Vehicle Road Transport Protocol*, reproduced in **Annexure D** for reference) and found that ORICA management effectively applies the DCC at all times with inductions of new drivers and regular monitoring of drivers and their vehicles with respect to the requirements / procedures under this DCC.

In view of the foregoing, no measures are considered necessary to further reduce or mitigate any adverse (or potentially adverse) impacts.

The recommendations raised in this audit are based upon the independent opinions and judgements of the authors.



.....
Craig McLaren RSA ID: 02-0263
(RMS Accredited Level 3 Road Safety Auditor) 8th March 2022.



.....
Thomas Steal RSA ID: 02-1075
(RMS Accredited Level 1 Road Safety Auditor) 8th March 2022.

ANNEXURE A: DPI&E LETTER DATED 29 MARCH 2021



Planning,
Industry &
Environment

Mr Allan McClelland
Orica Australia Pty Limited

Via Email Only: allan.mcclelland@orica.com

29/03/2021

Dear Mr McClelland

**Orica Richmond Vale Ammonium Nitrate Emulsion Project (MP 09_0090)
Proposed Audit Team – Traffic Audit 2021**

Reference is made to Orica Australia Pty Limited's (Orica's) request (MP09_0090-PA-17) for the Secretary's approval of suitably qualified persons to prepare the 2021 Independent Traffic Audit (audit) for the Richmond Vale Ammonium Nitrate Emulsion Project in accordance with Schedule 3, Condition 11 of Project Approval MP 09_0090, as modified (the approval).

The Department has reviewed the information provided in accordance with the approval and the Secretary endorses the following audit team of McLaren Traffic Engineering:

- Mr Craig McLaren – Lead Auditor

Please ensure this correspondence is appended to the Independent Audit Report.

The Department requests that the auditor please consider the Independent Audit Post Approval Requirements when undertaking the audit.

The audit inspection date shall be on or near the end of the audit period. The audit period shall be from 25 August 2018 to the audit inspection date.

Within one month of commissioning the audit, or as otherwise agreed by the Secretary, the audit report shall be submitted to the Department via the Major Projects Portal.

If you wish to discuss the matter further, please contact Ann Hagerthy on 02 6575 3407.

Yours sincerely

A handwritten signature in black ink that reads 'H Watters'.

Heidi Watters
Team Leader Northern
Compliance

As nominee of the Planning Secretary

ANNEXURE B: CIRRICULUM VITAE (SHEET 1 OF 2)



Craig McLaren (Director)

RPEQ 19457

Craig is an acknowledged traffic consultant since the company inception in 1995. The company's primary function has been to serve both the public and private sectors focusing on traffic impact assessments, transport planning, special event transport planning, local area traffic management, road safety and expert evidence at Land and Environment Court, Supreme Court and the Commission of Inquiry.

Qualifications

Bachelor of Civil Engineering, UNSW, 1985

Graduate Diploma in Traffic Engineering, University of New South Wales, 1991

Accredited Level 3 Road Safety Auditor, 1998

Risk Management Workshop, September 2014

Professional Engineers Australia. RPEng 2017

Registered Professional Engineer Queensland 2017
RPEQ 19457

RMS Accredited Traffic Management Plan Designer
[2018]

Affiliations:

Member, Australian Institute of Traffic Planning and Management - AITPM

Member, Institute of Transportation Engineers USA
(Australian Branch) – ITE



Papers at Conferences

"Safe & Liveable Communities, Can You Have Both?" Georgia Institute of Transportation Engineers. St Simons Island, Georgia USA July 1999.

Experience:

McLAREN TRAFFIC ENGINEERING 1995 to date:

Director and experienced traffic engineer responsible for the conduct of all facets of traffic impact assessment ranging from report preparation, design advice and giving evidence at the Land and Environment Court.

SINCLAIR KNIGHT MERZ 1994 to 1995:

Executive Traffic Engineer. Responsible for the conduct of all facets of traffic impact assessment ranging from report preparation, design advice and giving evidence at the Land and Environment Court.

TRANSPORTATION PLANNING WORKSHOP 1989 to 1994:

Senior Associate. Responsible for the conduct of a vast number of traffic impact assessment report and gained invaluable experience in giving expert evidence before the Land and Environment Court.

ROADS AND TRAFFIC AUTHORITY, NSW 1988 to 1989:

Technical Secretary to the Regional Traffic Committee, Traffic Engineer, Traffic Engineering Section, involved in traffic/transport research, policy development and assisting councils in the application of the Authority's guidelines.

OVE ARUP TRANSPORTATION PLANNING 1985 to 1988:

Traffic Engineer. Involved in the preparation of traffic impact reports for a wide range of projects.

GUTTERIDGE HASKINS & DAVEY 1980 to 1982:

Trainee Civil Engineer. Involved in assisting with road and subdivision design and field surveying.

ANNEXURE B: CIRRICULUM VITAE (SHEET 2 of 2)



Thomas Steal (Senior Traffic Engineer)

Experienced traffic engineer with extensive experience in consulting with the public and private sectors on matters of transport planning, construction traffic management, traffic impact assessment, road & car park design and road safety auditing.

Appears regularly to represent applicants at Joint Regional Planning Panel and Planning Assessment Commission Meetings to provide expert comments on the traffic, parking and safety impacts of developments.

Has appeared on numerous occasions as an Expert Witness before the Land and Environment Court, representing both Councils and Developers on a range of development types.

Qualifications

Bachelor of Civil Engineering, University of Sydney, 2015

IPWEA Accredited Level 1 Road Safety Auditor, 2015

RMS Accredited Work Zone Traffic Management Plan Designer and Inspector

Experience:

MCLAREN TRAFFIC ENGINEERING

2015 to date, roles including:

- | | | |
|---|-----------------------------------|--|
| - Road Safety Auditing | - Concept Road and Parking Design | - Development of Traffic Engineering Methodology |
| - Construction Traffic Management Plans | - Expert Witness | - Transport Planning |
| - Traffic Impact Assessment | - SIDRA and Aimsun Modelling | - Expert Advice at Public Meetings |
-

Significant Projects and Matters:

Woollooware Bay Town Centre incl. ~800 Residential Units and Shopping Centre;

Rezoning for up to 3500 Residential Lots in Wallalong;

New Public School in Cecil Park for 630 children;

New Private Hospital in Terrey Hills;

Conservatorium and Planetarium in Orange;

Road Safety Audits of Digital Signage throughout the Ryde Local Government Area;

Various Audits of Roads, Intersections and Bicycle Paths in Bega Shire

Aged Care Development in Sans Souci (provided evidence for Hearing);

Proposed Expansion of Church in Cecil Park (provided evidence for Hearing)



ANNEXURE C: LIST OF INCIDENTS
(SUMMARY PAGE PLUS 110 SHEETS)

AEMR	Incident Date	Enablon No.	Principal	Transport Company	Incident Description	Material	DG	Vehicle Type	Report	DPIE Response	Comments
	2018.04.30	2018-00033782	Incitec	Frenchs Transport	Truck Parked on George Booth Drive 11 Hours	UREA	NO	B-Double Curtainer		Show Cause/ Warning Letter	
	2018.05.03	2018-00033849	Orica	Kalari Transport	Truck Parked on George Booth Drive 4 Hour	Ammonium Nitrate Emulsion	YES	B-Double Tanker		Show Cause/ Warning Letter	
	2018.05.03	2018-00033850	Incitec	Frenchs Transport	Truck Parked on George Booth Drive 5 Hours	UREA	NO	B-Double Curtainer		Show Cause/ Warning Letter	
	2018.08.07	2018-00036799	IXOM	Chemtrans	Accessed site via Seahamston	46% Caustic Soda Liquid	YES	Single Tanker		Show Cause/ Warning Letter	
	2018.09.25	2018-00038405	Orica	Kalari Transport	Truck Parked on George Booth Drive 15 minutes	Ammonium Nitrate Emulsion	YES	B-Double Tanker			
	2018.11.21	2018-00040199	Orica	Kalari Transport	Truck Parked on George Booth Drive	Ammonium Nitrate Emulsion	YES	B-Double Tanker			
	2019.05.08	2019-00049275	Incitec	Frenchs Transport	Truck Parked on George Booth Drive 9.5 Hours	UREA	NO	B-Double Curtainer			
	2019.05.09	2019-00046015	IXOM	Novacoast Transport	Raw Material Truck exceed GVM	Thiourea	NO	Small Rigid			
2020	2019.11.26	2019-00052979	IXOM	Unanderra Tanker Hire	Truck Parked on George Booth Drive 1 Hour	Acetic Acid	YES	Single Tanker	Major Project Portal	Breach recorded and will take No Action at this time, please include in AEMR	
2020	2020.01.16	2020-00054378	Orica	ROTC	Truck Parked on George Booth Drive 1 Hour	Ammonium Nitrate Emulsion	YES	B-Double Tanker	Major Project Portal	The Department has logged the non-compliance and will take no action at this time.	
2020	2020.01.26	2020-00054690	Orica	McCollis	Truck Parked on George Booth Drive 3 Hours	E2566T Emulsifier	NO	Single ISO-Tanker	Major Project Portal	Breach recorded and will take No Action at this time, please include in AEMR	
2020	2020.04.14	2020-00057013	Orica	McCollis	Left kurti site via Seahamston	E2566T Emulsifier	NO	Single ISO-Tanker	Major Project Portal	Show Cause Letter	
2021	2020.08.28	2020-00061335	Orica	McCollis	Truck Parked on George Booth Drive 21.30 -03.00hrs	E2566T Emulsifier	NO	Single ISO-Tanker	Major Project Portal	Warning Letter	
2021	2020.10.16	2020-00063136	Hilditch	Hills Transport	Truck Parked on George Booth Drive 13.30 hrs for 5 minutes	Yubase 3	NO	B-Double Tanker	Major Project Portal		Flat tyre warning light on dash of truck confirmed by Orica on arrival at site

Events

Responsible Entity

Event ID 2020-00063136

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor Allan McClelland - 13799 {Main}

Nominate a Validator Nataly Puspitasarie - 49690 {Main}

Source Web UI

Log Book 



Identification

Short Description Heavy Vehicle stopped on George Booth drive due to breakdown

Event Date (Local Time) 16/10/20 01:30 pm

Reported Date (Local Time) 16/10/20 02:28 pm

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 16/10/20 01:30 pm

Reported Date (My Time) 16/10/20 02:28 pm

Lag Time 0 Day(s)

Reported by Allan McClelland

Details

Classification Community

Confidentiality Normal

Risk Categories Transport related incident

Severity 0 - Report Only

Reportable to Authority Yes

Related Event(s) ANE delivery tanker breakdown on George Booth drive - 2020-00054825

Comment **22/10/20 03:16:07 pm - Allan McClelland - 13799 {Main}**
...manually changed the workflow FROM Investigation/Action Planning TO Awaiting Investigation/Action Completion

Location

Location Type In Transit - Travel

Area On Road / Highway

Specific Area

Address George Booth Drive, Richmond Vale NSW

Maps Manager



Description

Report (Site language) Heavy vehicle stopped on George Booth Drive reported to Site Supervisor by SER supply chain. Haulage contractor contacted & reported that driver had stopped to investigate cause of warning light. Driver believed he may have had a flat tyre so stopped on side of road in safe area to check. No fault found so driver continued to site. Total time stopped on GBD estimated to be 5 minutes.

Was the activity being performed Controlled by Orica

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a Misfire?

Immediate Action Taken

Immediate Action(s) Taken Driver supplied statement. Driver new all requirements of RTP. Incident report to be submitted to DPI & E as per Road Transport Protocol requirements.

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required? ☒

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 22/10/20 03:16:33 pm

Under Investigation ☒

Number of Actions 0

Number of Closed Actions 0

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 1

Number of Closed Investigations 1

Statement Count 0

Evidence Count 0

Causes Count 0

Changes Count 0

Created by Allan McClelland - 13799 {Main} on 16/10/20 02:44:00 pm

Last modified by Allan McClelland - 13799 {Main} on 22/10/20 03:16:33 pm

Subscription Status: (On / Off)

Action Plans

There are no results.

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	Heavy Vehicle stopped on George Booth drive due...	Real (actual severity)	Community	Community Health & Safety	0 -COM Report Only: no discernible impact OR not Orica	1 -COM Minor: confirmed complaint, minor impact
Kurri Kurri: ANE Plant (MSO)	Heavy Vehicle stopped on George Booth drive due...	Real (actual severity)	Non Compliance or Breach of Licence		0 -NC Report Only: no breach, may notify	1 -NC Minor: reportable, Fine <\$100K

Agency Notifications

There are no results.

Investigations

Entity	Investigation Status	Short Description	Initial Due date	Due Date	Date Investigation Completed	Person Responsible
Kurri Kurri: ANE Plant (MSO)	Closed	heavy vehicle stopped on George Booth drive...	30/11/20	30/11/20	22/10/20	Allan McClelland

Statements

There are no results.

Evidence

There are no results.

Causes

There are no results.

Changes

There are no results.

ENABLON EVENT

2020 - 00063136

Hill's delivery vehicle parked on George Booth Drive for 5 minutes to check tyre inflation

BASIC INVESTIGATION

13.10.2020

Investigation carried out by Orica.

Event Summary: - Hill's B-Double tanker stopped on George Booth Drive for 5 minutes to check tyre inflation as there was a fault light showing on tyre inflation system. This incident is not classed by Orica as a non-conformance to RTP however must still be reported to the DPI&E

Location: Kurri ANE Plant

Event Date: 16.10.2020

Event Time: 13:15hrs

Reported By: Allan McClelland / Natalie Botham

Reported Date: 16.10.2020

Reported Time: 13:20 hrs. Enablon event entered 14:28hrs

Attachments:

Summary of event details by David Robson (Hill's driver)

Notification of Incident letter to DPI&E

Timeline of Events:

16.10.2020, 13:15 hrs – Hill's heavy vehicle parked on side of GBD near Richmond Vale road intersection

16.10.2020, 13:20 hrs – Hill's heavy vehicle observed by Orica employee parked on GBD.

16.10.2020, 13:25hrs – Hill's transport contacted to inform them of truck stopped on GBD

16.10.2020, 13:30 hrs – Hill's tanker arrived on site & questioned about stopping on GBD

16.10.2020, 14:28 hrs - Enablon event raised for incident

19.10.2020, 12:42 hrs – Incident notification letter submitted to DPI&E

Operation: Delivery of Yubase to Kurri ANE Plant by Hill's transport via road transport.

Background: All heavy vehicle movements in & out of Kurri ANE site are governed by our Road Transport Protocol Document. This document forms part of our Licence to Operate approval issued by the Department of Planning Industry & Environment is reviewed on a regular basis. All heavy vehicles entering / leaving Kurri ANE Plant must carry a copy of the RTP document with them. The document outlines requirements for heavy vehicle movements including designated route's for heavy vehicles moving to & from site. It also contains specific instructions regarding designated truck parking areas on route to the site.

There have been multiple incidents of this type in the past detected by Orica.

The RTP was updated in June of 2020. Notification of the updated RTP with instruction of where the document could be found on the Orica website was issued to all contractors that provide truck haulage services to the site in July 2020.

Observations;

Driver observed a warning light on his tyre inflation system while travelling along GBD. Driver stopped in safe area on side of road, then got out to inspect tyre inflation. No flat tyre was found so driver continued on to Orica site. Orica staff member reported a truck parked on GBD to ANE Plant Senior Site Supervisor. On arriving at site the driver was questioned as to why he was stopped on GBD & gave a written statement reflecting the above scenario. Warning light was still showing when he had reached the ANE Plant. Possibly indicating an electrical fault in system.

Action:

No actions from this incident as it is not classed by Orica as a non-compliance to RTP however must still be reported to the DPI&E.

Attachments:

FRIDAY 16-20-2020

I DAVID ROBSON FROM HILLS TANKERS STOPPED ON GEORGE BOOTH DRIVE
AT APPROXIMATELY 13:15 FOR APPROXIMATELY 5 mins TO CHECK FOR
A TYRE ISSUE AFTER A WARNING LIGHT ALERTED ME OF A POSSIBLE
PROBLEM

DAVID ROBSON

D. Robson

**Kurri Kurri**

Orica Australia Pty Limited
ACN 004 117 828

1151 George Booth Drive Richmond Vale NSW 2327 Australia
Tel +61 2 4939 3789 Fax +61 2 4939 5159

16 October 2020

Department of Planning Industry and Environment
320 Pitt Street
SYDNEY NSW 2001

**Orica Australia Pty Ltd (Orica) and Department of Industry and
Environment (DPIE)
Orica Kurri Kurri Site**

Dear Sir/Madam

I am writing to you out of courtesy to advise DPIE of a truck which had stopped on George Booth Drive contrary to the Orica Kurri Kurri Road Transport Protocol. This is a self-report (Orica RTP). The following is a summary of what occurred:

Date of Event:	16 October 2020
Event:	• A Hills Tanker was observed stopped on GBD. The tanker was stopped for around 5 minutes and the driver was spoken to when he entered onto the Kurri Kurri site. • The driver advised a warning light for a potential flat tyre had activated so he stopped off the side of GBD in a safe area to check. No flat tyre found so he continued to site. • The warning light was still on when checked by Orica personnel as he entered the site so the issue presumably a mechanical/electrical fault in the truck's system. • The Hill's driver had copy of RTP and was aware of his responsibilities. • The driver advised he had not contacted the plant as he was only stopped for short period of time to carry out a safety check. He had intended to speak with supervisor to inform him when arriving at site.
Heavy Vehicle Operator:	Hills Transport Company. The truck driver was not an Orica employee
Community Complaints	No community complaints were received to the site's Community Complaint Hotline
Impacts	There were no actual or potential offsite impacts on people or the biophysical environment

The Hills Tanker was a B-double transporting a product called "Yubase 3" base oil which is not classified as a Dangerous Good. The driver was using the correct/ approved route to access the site.

We have entered this incident in Orica's Global Incident Management system (Enablon incident # 2020/00063136).



Department of Planning, Industry & Environment

Please let us know if DPIE requires any further information regarding this event and feel free to contact Richard Powell 0417 809 026 if you would like to discuss.

Yours sincerely

David N Horne

Senior Supervisor Plant Downstream Manufacturing, Kuri Kurri
Orica Australia Pty Ltd

Events

Responsible Entity

Event ID 2020-00061335

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor Allan McClelland - 13799 {Main}

Nominate a Validator Nataly Puspitasarie - 49690 {Main}

Source Web UI

Log Book 

Identification

Short Description McColls heavy vehicle parked on George Booth drive prior to delivery

Event Date (Local Time) 28/08/20 03:30 am

Reported Date (Local Time) 28/08/20 10:10 am

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 28/08/20 03:30 am

Reported Date (My Time) 28/08/20 10:10 am

Lag Time 0 Day(s)

Reported by Allan McClelland

Details

Classification Non Compliance or Breach

Confidentiality Normal

Risk Categories Business practices/governance/procedure

Severity 1 - Minor

Reportable to Authority Yes

Related Event(s) McColls vehicle used incorrect route when leaving site - 2020-00057013
McColls truck parked on George Booth Drive for 3 hours prior to entering site - 2020-00054690

Comment **17/09/20 10:20:13 pm - <None>**
...manually changed the workflow FROM Awaiting Investigation/Action Completion TO Closed

03/09/20 02:38:49 pm - Allan McClelland - 13799 {Main}
...manually changed the workflow FROM Investigation/Action Planning TO Awaiting Investigation/Action Completion

Location

Location Type In Transit - Product Distribution

Area On Road / Highway

Carrier Name McColl's

Specific Area George booth Drive, opposite Orica Site

Address

Maps Manager



Description

Report (Site language) Orica Supervisor seen McColls truck carrying ISO of E25 parked on George Booth drive when travelling to site at approximately 03:00 hrs. Truck was parked off the road opposite Orica site. Supervisor returned soon after & attempted to wake Driver but received no response. Driver awoke & attended site at approximately 06:00 hrs. When questioned why he was parked on GBD & if he was aware that he was not allowed to park on GBD the Driver replied yes to both questions. He stated that he had parked there so he could be onsite at the assigned delivery time of 06:00 hrs.

Was the activity being performed Controlled by Orica

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a Misfire?

Immediate Action Taken

Immediate Action(s) Taken Non compliance reported to Orica legal representative so an incident notification letter to the DPI could be drafted.

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required? ☒

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 17/09/20 10:20:13 pm

Under Investigation ☒

Number of Actions 0

Number of Closed Actions 0

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 1

Number of Closed Investigations 1

Statement Count 0

Evidence Count 0

Causes Count 0

Changes Count 0

Created by Allan McClelland - 13799 {Main} on 28/08/20 10:27:51 am

Last modified by a System Batch on 17/09/20 10:20:13 pm

Subscription Status: (On / Off)

Action Plans

There are no results.

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	McColls heavy vehicle parked on George Booth...	Real (actual severity)	Non Compliance or Breach of Licence		1 -NC Minor: reportable, Fine <\$100K	1 -NC Minor: reportable, Fine <\$100K

Agency Notifications

There are no results.

Investigations

Entity	Investigation Status	Short Description	Initial Due date	Due Date	Date Investigation Completed	Person Responsible
Kurri Kurri: ANE Plant (MSO)	Closed	Non-compliance with RTP by McColl's Transport	03/10/20	03/10/20	03/09/20	Allan Mccllland

Statements

There are no results.

Evidence

There are no results.

Causes

There are no results.

Changes

There are no results.

ENABLON EVENT

2020 - 00061335

McColl's delivery vehicle parked on George Booth Drive for 8.5 hours prior to entering site to unload

INVESTIGATION

03.09.2020

Investigation carried out by Orica.

Event Summary: - McColl's heavy vehicle delivering E25 parked on GBD for 8.5 hours prior to delivering load, non-compliance with RTP

Location: Kurri ANE Plant

Event Date: 27/09/2020

Event Time: 21:30hrs

Reported By: Allan McClelland / Dean Thomson

Reported Date: 28/08/2020

Reported Time: 10:10 hrs

Attachments:

Summary of event details by Dean Thomson

McColl's incident report & investigation report

Notification of Incident letter to DPI&E

Timeline of Events:

27.08.2020, 21.30 hrs - McColl's heavy vehicle parked on side of GBD opposite Orica site

28.08.2020, 03:20 hrs – McColl's heavy vehicle observed by Orica employee parked on GBD opposite Orica site

28.08.2020, 03:40 hrs – Orica employee attempted to wake Driver

28.08.2020, 06:00 hrs – McColl's heavy vehicle contacted control room to enter site

28.08.2020, 09:30 hrs – McColl's notified of incident by Orica

28.08.2020, 10:10 hrs - Enablon event raised for incident

28.08.2020, 11:00 hrs – Verbal acknowledgement of incident received from McColl's

28.08.2020, 16:00 hrs – Incident notification letter submitted to DPI&E

03.09.2020 – Written response with McColl's incident report & Investigation received from McColl's

Operation: Delivery of E25 emulsifier from Deer Park to Kurri ANE Plant by McColl's transport via road transport.

Background: All heavy vehicle movements in & out of Kurri ANE site are governed by our Road Transport Protocol Document. This document forms part of our Licence to Operate approval issued by the Department of Planning Industry & Environment is reviewed on a regular basis. All heavy vehicles entering / leaving Kurri ANE Plant must carry a copy of the RTP document with them. The document outlines requirements for heavy vehicle movements including designated route's for heavy vehicles moving to & from site. It also contains specific instructions regarding designated truck parking areas on route to the site.

There have been multiple incidents of this type in the past detected by Orica.

The RTP was updated in June of 2020. Notification of the updated RTP with instruction of where the document could be found on the Orica website was issued to all contractors that provide truck haulage services to the site in July 2020.

Root Cause: Failure of Haulage contractor to comply with RTP,

Contributing Factor:

Driver delivering load direct from Deer Park & was from Victoria. Had never been to site before however was supplied with a copy of the RTP by McColl's.

Orica had requested a 06:00 hrs delivery for load due to low storage level at plant. Low level due to previous load of E25 being sent to Liddell as it was too cold to be unloaded at Kurri (repeated low flow trips).

Observations;

Driver had not attended site previously but had been informed of RTP requirements prior to delivering to site. Driver stated that he did have a copy of the RTP & he was aware that parking on GBD was not permitted however had failed to stop at parking area prior to arriving & decided that it should be ok to park there for the night. Designated parking areas on route are contained in the RTP. Driver used the correct route contained in the RTP.

McColl's were involved in a prior incident involving non-compliance with RTP in January 2020 & again in April 2020. McColl's provided evidence of TBT's etc that all NSW based Drivers delivering to Orica had taken part in TBT & had been informed of the requirements of the RTP & consequences of non-compliance.

McColl's have changed delivery process to include Victorian based Drivers to deliver directly to site however have failed to go through the same TBT process with Victorian based Drivers.

Recommendations:

Ensure all suppliers & heavy vehicle haulage providers are aware of current revision of RTP & are compliant with all conditions contained in documents.

Ensure all Drivers of heavy vehicles delivering to or from site have a copy of RTP in vehicle & are aware of their responsibilities.

Consider disciplinary action against the Driver involved including temporary suspension of access to all Orica sites for a period of 12 months due to blatant disregard of RTP requirements.

Consider a review of the KPI framework within haulage contracts to include a critical KPI relating to compliance with laws, which if breached could trigger penalties for the contractor. This may help ensure contractors compliance.

Action:

McColls to conduct Toolbox talk with all Victorian based Drivers to ensure understanding of requirements contained in the Orica RTP & associated consequence of non-conformance

Attachments:

Summary of incident with McColl's heavy vehicle parked on GBD

Dean Thomson – Orica Supervisor

- Arrived at work at 3.20am, McColl's tanker parked across from Kurri site entry road.
- 3.40am Tried to wake driver where he was parked.
- 6.00am McColl's driver contacted control room to enter site.
- Driver informed control room he had not been to site previously and had been to Victoria and being asked these questions.
- Driver was asked if he had a copy of RTP, he responded that he did.
- Driver was asked did he know that he could not park on George booth drive, driver responded that he did know he could not park on George booth drive but thought it would be ok.
- I responded that you are not allowed to park on George booth drive at all.
- Driver responded a bit angrily that he was told to be at 6.00am because we were going out of product.



Kurri Kurri

Orica Australia Pty Limited
ACN 004 117 828

1151 George Booth Drive Richmond Vale NSW 2327 Australia
Tel +61 2 4939 3789 Fax +61 2 4939 5159

28 August 2020

Department of Planning Industry and Environment
320 Pitt Street
SYDNEY NSW 2001

**Orica Australia Pty Ltd (Orica) and Department of Industry and
Environment (DPIE)
Orica Kurri Kurri Site**

Dear Sir/Madam

I am writing to you out of courtesy to advise DPIE of a potential infringement involving a heavy vehicle operated by a third party not parking in accordance with the amended Orica Road Transport protocol (**Orica RTP**). The following is a summary of what we know.

Date of Event:	28 April 2020
Event:	A vehicle was observed by the Orica Supervisor at Kurri Kurri at around 0320 hours parked on George Booth Drive. The truck entered the Orica Kurri Kurri site at around 0600 hours and the driver was questioned by the Orica Supervisor.
Heavy Vehicle Operator:	McColls Transport Company. The truck driver was not an Orica employee
Community Complaints	No community complaints were received to the site's Community Complaint Hotline
Impacts	There were no actual or potential offsite impacts on people or the biophysical environment

We have been in contact with McColl's Transport this morning and we have requested an urgent investigation into this matter. We will update the Department once this investigation is completed.

Please let us know if DPIE requires any further information regarding this event and feel free to contact Richard Powell 0417 809 026 if you would like to discuss.

Yours sincerely

David N Horne
Senior Supervisor Plant Downstream Manufacturing, Kurri Kurri
Orica Australia Pty Ltd



Post Approval

Proponent Details

Personal Details

First Name	David
Last Name	Home
Email	david.home@orica.com
Phone	0427004683
Job Position	Senior Supervisor
Address	Level 3, 1 Nicholson Street
	East Melbourne
	Victoria
	3002
	AUS

Company Details

Operating as a company/business?

Yes	
Company Name	ORICA AUSTRALIA PTY LTD
ABN	99004117828
Legal Name	

Primary Contact

First Name	David
Last Name	Home
Email	david.home@orica.com
Phone	0427004683
Job Position	Senior Supervisor

Post Approval Details

Object:
Chimney Vale Ammonium Emulsion - MP09, 0090-PA-5

Type of Document:
Incident Notification

Related matter:
Compliance Report, Annual Review, Audit Report

Type of Document Lodgement:
New Document

Description of the document and reason for submission / Overview of changes made to existing documents:
Isol Incident Notification
Isolated Non-Compliance with RTP

Applicable Conditions

Condition	1
Condition	10

Consultation through the Major Projects portal:
Consultation required as part of the preparation of the document?

Attachment of Post Approval application

File Name	Category
00061335 Orica 2020 EPR EPR	Post Approval Document



McColl's Transport Pty Ltd
Incident Report Form (I.D. - IRF6)

OFFICE USE ONLY: INCIDENT I.D.

Part 1: Incident Report – completed without delay (no later than 24 hours) by Worker or by Manager / Supervisor with person reporting incident.

1. Personnel Details (Involved Person or Reported By):

First Name:	Surname:	Division:	Depot:
Ron	Hooper	BCD	Altona

Employment Status (Select 'x'):

☐ McColl's Permanent	☒ McColl's Casual	☐ McColl's Part-time
☐ Sub-contractor	Sub-contractor Employer Name :	

2. Incident Details

Date of Incident:	Time of Incident:	Date Reported:	Time Reported:
28/08/20	06:00	28/08/20	08:00

Location of incident (include: site address/town/state, farm location, customer site, etc.):

Orica – Kurri Kurri

Hours into shift (Mark with 'x' – calculated from start of shift to incident time):

☒ 0 to 2 hours	☐ 3 to 4 hours	☐ 5 to 6 hours	☐ 7 to 8 hours
☐ 9 to 10 hours	☐ 11 to 12 hours	☐ 13 to 14 hours	☐ 15 or more hours

Full incident description & diagram (i.e. what happened? Sequence of events leading up to event):

- ISO-Tainer loaded for delivery to Orica Kurri Kurri, for 06:00 Friday the 28th of August
- Driver was Ron Hooper, P739 & T378, ISOTCAU8737402
- Ron has stopped at around 21:19 the previous evening, 27th of August
- Ron has parked on George Booth Drive with ignition off at 21:19, ignition on the following morning at 05:56
- As per the Richmond Vale ANE Production Facility Road Transport Protocol, parking on George Booth Drive is prohibited (section 3.1.11)
- This results in a non-conformance against the operating conditions of the Richmond Vale / Kurri Kurri facility
- It should be noted that Ron had followed the correct/nominated heavy haulage route, with further details of the trip event recorded here: <https://www.screencast.com/t/OsFmvQn9Fn>

3. Witness/s Details (Attach witness statements):

Full Name:	Address:	Phone no:
N/A		

Full Name:	Address:	Phone no:
N/A		



McColl's Transport Pty Ltd
Incident Report Form (I.D. – IRF6)

OFFICE USE ONLY: INCIDENT I.D.

4. Incident Type (Select 'x' to incident category and complete all details):			
☐ Motor Vehicle Incident			
a) Vehicle details:			
Prime Mover Fleet Number:	Registration No:	Description of damage:	
P739	1GF2QK		
Tanker (A) Fleet Number:	Registration No:	Description of damage:	
T378	00007S		
Tanker (B) Fleet Number:	Registration No:	Description of damage:	
Equipment / Property Type:		Description of damage:	
ISO: TCAU873740Z			
b) Weather conditions:			
☐ Clear/dry	☐ Clear/wet	☐ Raining	☐ Fog
☐ High wind	☐ Overcast	☐ Snow ice	☐ Other _____
c) Road type			
☐ Off Road	☐ Single Lane Hwy	☐ Dual Lane Hwy	☐ Rural Road
☐ Metro Road	☐ Freeway	☐ Off/On Ramp	☐ Roundabout
☐ Other _____			
d) Third Party details (Attach photos):			
Full Name:	Address:	Phone no:	
Vehicle Make/Model:	Registration No:	Description of damage:	
☐ Equipment/ Property Damage			
Equipment / Property Type:		Description of damage:	
☐ Product Spill/ Contamination and/or Environmental Impact			
Product Name:	Description of Impact:	Spill Amount	
X Near Miss/ Hazard Report			
☐ Other (Please specify): _____			
5. Signatures:			
Name (Involved Person or Reported By):		Signature:	Date:
Ron Hooper			
Supervisor/ Site Manager:		Signature:	Date:
David Hughes			

NOTE: Supervisor/Site Manager must ensure all information has been completed fully prior to sign-off and submission.



McColl's Transport Pty Ltd
Incident Investigation Form (I.D. – IIF3)

Procedures	Was a work procedure used?	Y	Describe any procedure contributing factors – Driver had not been to this site before so was not familiar with the location. He had been provided with a copy of the RTP, however expected to go through Orica's site induction in more detail on arrival.
	Do people know the procedure?	N	
	Does the procedure adequately cover what happened?	Y	
	Could the control of risk be improved?	Y	
Organisational Factors	Is training, experience or competence required for the work?	Y	Describe any organisational contributing factors – Whilst Ron was issued with a copy of the RTP in this circumstance, it is evident that he has not fully understood it. Two further preventative measures have been put forward – a sign-off confirmation by the VIC drivers (as has been completed by the NSW drivers), as well as looking at the option of a pre-arrival induction to be completed online.
	Is training and refresher training adequate?	N	
	Are risk controls for this work communicated?	Y	
	Is supervision required for the work?	N	
	Do inspections identify the hazard?	Y	
	Is equipment maintenance adequate?	Y	
	If the work environment changes do the risk controls need to change?	Y	

Step 2: From the areas identified, summarise the contributing factors and basic causes

Driver provided the RTP for delivering to Orica Kurri, however had not delivered to the site before. He was hoping to find somewhere to park near the entrance to be ready for a 6am delivery.
He did not realise the only parking area was on George Booth until he got there and thought it would be OK as he wasn't aware of the consequences.
Whilst NSW drivers have completed sign-off sheets to confirm their understanding of the RTP for Richmond Vale, this has evidently not occurred with the Victorian Drivers.

Step 3: Take actions to return to a safe system of work and identify risk controls that may assist prevent the incident from happening again

1. eliminate the hazard
2. substitute the hazard for something safer
3. isolate the hazard from people
4. reduce the risk by engineering controls
5. reduce harm using administrative controls
6. use personal protective equipment

Risk Control Hierarchy

- Using the risk control hierarchy (in order of most effective to least effective)

Corrective / Preventive Actions	By Who	By When	Completed
Ron to be issued with a warning for failure to follow protocol	David H	04/09/20	
Explore an online induction with Orica (pre-arrival)	Keith M	25/09/20	
All drivers delivering to Kurri to have completed sign-off sheet regarding understanding the RTP for Richmond Vale	Rhys/Edwin	11/09/20	

6. Consultation & Verification:

a) I confirm that the above actions have been discussed with me.

Involved Person(s) Name:

Signature

Date:

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b) I confirm that this form has been completed correctly and in full.

Site Manager / Supervisor Name

Signature

Date:

--	--	--

c) I confirm that the above actions have been reviewed and added to the risk register.

National WH&S Manager

Signature

Date:

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McColl's Transport Pty Ltd
Incident Investigation Form (I.D. – IIF3)

Part 3: Incident investigation – Must commence within 24 hours of it being reported, (including significant near misses) and where reasonably practicable concluded within 72 hours.

1. Personnel Details:

First Name	Surname	Date of Incident	Time of Incident	Incident ID:
Ron	Hooper	28.8.20	06:00	

2. Immediate Containment Measures. What is being done to minimize or contain the incident?

3. Investigation Team Member/s

	Name	Position
Team Leader	David Hughes	Vic Ops Controller
Team Member/s		

4. INCIDENT TYPE

For both Actual & Potential for each category ~ Please choose H-High, M-Medium, L-Low.

Refer Risk Severity Table below

Safety	Environment	Motor Vehicle	Business Interruption
Actual - ☐	Actual - ☐	Actual - ☒	Actual - ☐
Potential - ☐	Potential - ☐	Potential - ☒	Potential - ☐

RISK SEVERITY TABLE	H = HIGH	M = MEDIUM	L = LOW	Note: If Actual or Potential Severity =
Safety	Serious Injury or Lost time > 5 Days	Medical Treatment or Lost time < 5 days	Minor Injury or First Aid Only required	Low – proceed to corrective actions of this form
Environment	Significant environmental damage	Nuisance damage – external assistance	On-site release contained internally	Medium & High - Complete all sections of this Form
Motor Vehicle	Damage > \$20,000	Damage < \$10,000	Damage < \$1000	High – Contact the National WH&S Mgr
Business Interruption	> 1 day downtime	1 hour – 1 day downtime	< 1 hour downtime	

5. Incident Investigation (Incident Cause and Analysis): Step 1 - Select 'Y' or 'N'

Absent or failed defences	Was equipment used as designed?	Y	Describe any equipment contributing factors -
	Did the equipment function as intended?	Y	
	Was the equipment in good condition?	Y	
	Were the controls legible?	Y	
	Was the equipment adequate for the task?	Y	
	Is Personal Protective Clothing and Equipment required for the work?	Y	
	Do safety rules apply to this work?	Y	
Individual or Team Actions	Is there something we did or didn't do?	Y	Describe any people contributing factors - Driver had not been to site before and did not understand the instructions or the consequences if not followed.
	Was the workload not too high/low?	N	
	Are people familiar with the equipment?	Y	
	Was the operator in good health? (no illness, work restriction, drugs/alcohol)	Y	
	Is communication required for the work?	Y	
Task or Environmental Conditions	Did something change for this incident to occur?	N	Describe any environment contributing factors -
	Were the workplace conditions normal or changed?	Y	
	Was housekeeping good?	Y	
	Were weather conditions a factor?	N	
	Were there distractions at the workplace?	N	
	Surrounding noises?	N	
	Light level sufficient?	Y	
	Gas, dust or fume present?	N	
	Surfaces – slippery, wet, level?	N	

Authorised By: National WH&S Manager

Issue Date: March 2014

Last Review: January 2015

Page 1 of 2

Printed copies of this document are uncontrolled

Version 3

Events

Responsible Entity

Event ID 2020-00057013

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor Allan McClelland - 13799 {Main}

Nominate a Validator David Home - 5823 {Main}

Source Web UI

Log Book 

Identification

Short Description McColls vehicle used incorrect route when leaving site

Event Date (Local Time) 14/04/20 12:00 pm

Reported Date (Local Time) 14/04/20 02:29 pm

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 14/04/20 12:00 pm

Reported Date (My Time) 14/04/20 02:29 pm

Lag Time 0 Day(s)

Reported by Allan McClelland

Details

Classification Non Compliance or Breach

Confidentiality Normal

Risk Categories Transport related incident

Severity 1 - Minor

Reportable to Authority Yes

Related Event(s) McColls truck parked on George Booth Drive for 3 hours prior to entering site - 2020-00054690

Comment **04/05/20 01:05:11 pm - Allan McClelland - 13799 (Main)**
...manually changed the workflow FROM Investigation/Action Planning TO Awaiting Investigation/Action Completion

Location

Location Type In Transit - Product Distribution

Area On Road / Highway

Carrier Name McColl's

Specific Area George Booth Drive, Sea Hampton

Address

Maps Manager



Description

Report (Site language) Orica Operator witnessed a McColls vehicle towing an ISO on George Booth drive heading towards Sea Hampton while on his way to work & reported to Supervisor.
McColls vehicle had delivered load of Emulsifier & left site just prior to report.
Travel via this route is a breach of our Road Transport Protocol & our Licence to Operate.

Was the activity being performed Controlled by Customer \ Public \ 3rd Party

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No
Did the event involve a Misfire?

Immediate Action Taken

Immediate Action(s) Taken Security camera footage from front gate checked & confirmed McColls vehicle traveled in the direction of Sea Hampton when leaving site.
Haulage contractor contacted to provide Driver statement & detailed reason for non-compliance.

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required? ☒

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 04/05/20 01:05:26 pm

Under Investigation ☒

Number of Actions 0

Number of Closed Actions 0

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 1

Number of Closed Investigations 1

Statement Count 0

Evidence Count 0

Causes Count 0

Changes Count 0

Created by Allan McClelland - 13799 {Main} on 14/04/20 02:47:25 pm

Last modified by James Davies - 46062 {Main} on 15/07/20 02:41:25 pm

Subscription Status: (On / Off)

Action Plans

There are no results.

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	McColls vehicle used incorrect route when leaving...	Real (actual severity)	Non Compliance or Breach of Licence		1 -NC Minor: reportable, Fine <\$100K	1 -NC Minor: reportable, Fine <\$100K

Agency Notifications

There are no results.

Investigations

Entity	Investigation Status	Short Description	Initial Due date	Due Date	Date Investigation Completed	Person Responsible
Kurri Kurri: ANE Plant (MSO)	Closed	McColls delivery vehicle used Incorrect route...	03/06/20	03/06/20	04/05/20	Allan McClelland

Statements

There are no results.

Evidence

There are no results.

Causes

There are no results.

Changes

There are no results.

ENABLON EVENT

2020 - 00057013

McColls delivery vehicle used incorrect route when leaving site

INVESTIGATION

04.05.2020

Investigation carried out by Orica.

Event Summary: - McColls heavy vehicle used undesignated route when leaving site after delivering E25

Location: Kurri ANE Plant

Event Date: 14/04/2020

Event Time: 12:00 hrs

Reported By: Allan McClelland / Trevor McLaughlin

Reported Date: 14/04/2020

Reported Time: 14:29 hrs

Attachments:

Email report of incident & response from McColls

McColls Toolbox Talk relating to incident

Notification of Incident letter to DPI&E

Timeline of Events:

14.04.2020 McColls heavy vehicle attended site to deliver E25 emulsifier

14.04.2020, 12:10 hrs – McColls heavy vehicle observed by Orica employee travelling on George Booth Drive in the direction of Seahampton after it had left Orica site

14.04.2020, 12:30 hrs – Orica employee reported observation to Senior Site Supervisor

14.04.2020, 13:00 hrs – Site security footage of site entrance checked & confirmed McColls vehicle had turned right towards Seahampton which is not a designated route as per Orica RTP

14.04.2020, 14:20 hrs – Senior site Supervisor emailed McColls to advise of incident & ask for clarification as to why Driver had chosen to use a route other than those designated in RTP

14.04.2020, 14:30 hrs - Enablon event raised for incident

15.04.2020, 11:00 hrs – Email response received from McColls

15.04.2020 – Incident notification letter submitted to DPI&E

24.04.2020 – Copy of Toolbox talk addressing incident received from McColls

Operation: Delivery of E25 emulsifier from Deer Park to Kurri ANE Plant by McColls transport via road transport.

Background: All heavy vehicle movements in & out of Kurri ANE site are governed by our Road Transport Protocol Document. This document forms part of our Licence to Operate approval issued by the Department of Planning Industry & Environment is reviewed on a regular basis. All heavy vehicles entering / leaving Kurri ANE Plant must carry a copy of the RTP document with them. The document outlines requirements for heavy vehicle movements including designated route's for heavy vehicles moving to & from site. It also contains specific instructions regarding designated truck parking areas on route to the site.

There have been multiple incidents of this type in the past detected by Orica.

As directed by DPI&E the RTP was updated in May of 2019 with specific instructions surrounding designated parking areas to be used. The updated RTP was issued to all contractors that provide truck haulage services to the site.

Root Cause: Failure of Haulage contractor to comply with RTP,

Contributing Factor:

Driver claimed he was not aware of designated routes to Orica site

Observations;

Driver had attended site previously & held a current site induction. Induction clearly states requirements for designated routes to be used when delivering to Orica Kurri ANE site.

McColls where involved in a prior incident involving non compliance with RTP in January 2020. Updated version of current RTP & relevant induction slides sent to McColls so all Drivers could be issued with updated copy.

Recommendations:

Ensure all suppliers & heavy vehicle haulage providers are aware of current revision of RTP & are compliant with all conditions contained in documents.

Ensure all Drivers of heavy vehicles delivering to or from site have a copy of RTP in vehicle & are aware of their responsibilities.

Action:

McColls to re-issue 2019 version of RTP to all drivers & allocators. McColls to conduct Toolbox talk with all Drivers

Attachments:

Allan McClelland

From: Allan McClelland
Sent: Thursday, 16 April 2020 2:34 PM
To: Ed Higginson; Maree Stuart
Cc: Sesh Sarkar; Jesse Pryce; Natalie Botham; Richard Powell; Mick Mulraney; Brian Cassel; Michael Deane
Subject: RE: Non compliance with RTP

Hi Ed

Thanks for your assistance with this incident. I feel the re-issue of 2019 version of RTP & designated route maps to both Drivers & Allocators along with the Toolbox are the correct actions to address the issue.

Even though we also go through RTP requirements when each driver is inducted every 12 months we still find these issues happening so could I suggest that it may be beneficial for McColls to go through a refresher process with Drivers / Allocators every 12 months as well.

Would it be possible for you to send me evidence of the completed TBTSO I can include in my incident investigation actions?

If you would like anymore information or have queries on any requirements please contact myself.

Regards

A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

General

From: Ed Higginson <EHigginson@mccolls.com.au>
Sent: Wednesday, 15 April 2020 4:30 PM
To: Maree Stuart <maree.stuart@orica.com>; Allan McClelland <allan.mcclelland@orica.com>
Cc: Sesh Sarkar <sesh.sarkar@orica.com>; Jesse Pryce <jesse.pryce@orica.com>; Natalie Botham <natalie.botham@orica.com>; Richard Powell <richard.powell@orica.com>; Mick Mulraney <MMulraney@mccolls.com.au>; Brian Cassel <BCassel@mccolls.com.au>; Michael Deane <MDeane@mccolls.com.au>
Subject: [EXTERNAL] RE: Non compliance with RTP

Hi Maree,

Confidential

Unfortunately we are unable to confirm with Justin as he is no longer with the business, so apologise if it was missed. However, going forwards we will reiterate with the drivers the importance they follow the correct route into your site and also ask our allocators to remind them when they allocate jobs. I've also sent the instruction to our Safety manager who will add it to the next round of Toolbox talks.

Regards

Ed Higginson
NSW Operations Manager - BCD



McColl's

McColl's Operations

A 62-98 Barwon Terrace

South Geelong VIC 3220

M 0401 141 772

E EHigginson@mcrolls.com.au



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From: Marlee Stuart marlee.stuart@orica.com

Sent: Wednesday, 15 April 2020 11:14 AM

To: Ed Higginson <EHigginson@mcrolls.com.au>; Allan McClelland <allan.mcclelland@orica.com>

Cc: Sesh Sarkar <sesh.sarkar@orica.com>; Jesse Pryce <jesse.pryce@orica.com>; Natalie Botham <natalie.botham@orica.com>; Richard Powell

<richard.powell@orica.com>; Mick Mulraney <MMulraney@mcrolls.com.au>; Brian Cassel <BCassel@mcrolls.com.au>; Michael Deane <MDeane@mcrolls.com.au>

Subject: RE: Non compliance with RTP

Hi Ed,

Please see attached correspondence forwarded to Justin when the last incident occurred.
The email contains the Kurri Kurri Road Transport protocol document and induction slides.

Are you also able to confirm why this information had not been previously shared with drivers to avoid a recurrence?

Regards



Maree Stuart
Sourcing Manager | AAA Supply Chain
Orica Australia Pty Ltd, 1 Nicholson St, Melbourne, VIC 3000
Mobile: +61 (0) 419 125 991 | Phone: +61 (0) 9645 4559 | Email: maree.stuart@orica.com
Please consider the environment before printing this e-mail notice

General

From: Ed Higginson <EHigginson@mccolis.com.au>
Sent: Wednesday, 15 April 2020 11:06 AM
To: Maree Stuart <maree.stuart@orica.com>; Allan McClelland <allan.mcclelland@orica.com>
Cc: Sesh Sarkar <sesh.sarkar@orica.com>; Jesse Pryce <jesse.pryce@orica.com>; Natalie Botham <natalie.botham@orica.com>; Richard Powell <richard.powell@orica.com>; Mick Mulraney <MMulraney@mccolis.com.au>; Brian Cassel <BCassell@mccolis.com.au>; Michael Deane <MDeane@mccolis.com.au>
Subject: [EXTERNAL] RE: Non compliance with RTP

Morning Maree,

I spoke with the driver this morning along with his allocator, Brian Cassel who also recently joined McColl's team in Sydney. The driver claimed he wasn't aware of the route restrictions so we have reissued the attached document and will distribute the maps to the interstate allocators too so they can reiterate with drivers. If you have the updated 2019 version which you refer to, could you please resend.

If you require further close out actions please let me know and we would be happy to put in place so you can close out with the DPI.

Regards,

Ed Higginson
NSW Operations Manager - BCD

**McColl's**

McColl's Operations

A 92-96 Barwon Terrace
South Geelong VIC 3220

M 0401 141 772

E EHigginson@mccolts.com.au

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From: Ed Higginson

Sent: Tuesday, 14 April 2020 9:32 PM

To: 'Maree Stuart' <maree.stuart@orica.com>; Allan Mockland <allan.mockland@orica.com>Cc: Sesh Sarkar <sesh.sarkar@orica.com>; Jesse Pryce <jesse.pryce@orica.com>; Natalie Botham <natalie.botham@orica.com>; Richard Powell <richard.powell@orica.com>; Mick Mulraney <M.Mulraney@mccolts.com.au>

Subject: RE: Non compliance with RTP

Hi Maree,

I will discuss with the driver in the morning and come back to you as soon as possible

Regards,

Ed Higginson

NSW Operations Manager - BCD

**McColl's**

McColl's Operations

A 92 96 Barwon Terrace
South Geelong VIC 3220
M 0401 141 772
E Edhigginson@mccolls.com.au



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From: Maree Stuart [\[mailto:maree.stuart@orica.com\]](mailto:maree.stuart@orica.com)

Sent: Tuesday, 14 April 2020 3:20 PM

To: Allan McClelland [\[mailto:allan.mcclelland@orica.com\]](mailto:allan.mcclelland@orica.com); Ed Higginson [\[mailto:Edhigginson@mccolls.com.au\]](mailto:Edhigginson@mccolls.com.au)

Cc: Sesh Sarkar [\[mailto:sesh.sarkar@orica.com\]](mailto:sesh.sarkar@orica.com); Jesse Pryce [\[mailto:jesse.pryce@orica.com\]](mailto:jesse.pryce@orica.com); Natalie Botham [\[mailto:natalie.botham@orica.com\]](mailto:natalie.botham@orica.com); Richard Powell [\[mailto:richard.powell@orica.com\]](mailto:richard.powell@orica.com)

Subject: RE: Non compliance with RTP

Hi Ed,

In light of Justin's departure, are you able to assist in providing a response to below?

Regards



Maree Stuart

Sourcing Manager | APA - Supply Chain

Orica Australia Pty Ltd, 1 Nicholson St, Melbourne, VIC 3000

Mobile: +61 (0) 419 105 001 Personal: +61 (0) 31 965 1459 | Email: maree.stuart@orica.com

 Please consider the environment before printing this e-mail notice

General

From: Allan McClelland [\[mailto:allan.mcclelland@orica.com\]](mailto:allan.mcclelland@orica.com)

Sent: Tuesday, 14 April 2020 2:18 PM

To: jkeast@mccolls.com.au

Cc: Sesh Sarkar [\[mailto:sesh.sarkar@orica.com\]](mailto:sesh.sarkar@orica.com); Maree Stuart [\[mailto:maree.stuart@orica.com\]](mailto:maree.stuart@orica.com); Jesse Pryce [\[mailto:jesse.pryce@orica.com\]](mailto:jesse.pryce@orica.com); Natalie Botham [\[mailto:natalie.botham@orica.com\]](mailto:natalie.botham@orica.com)

Richard Powell <richard.powell@orica.com>
Subject: Non compliance with RTP

Hi Austin

We have had a delivery of Emulsifier today at the Kurri ANE Plant. I believe the Drivers name was Jason Stewart. When leaving the plant after the delivery had been completed the vehicle was observed by an Orica employee travelling on George Booth Drive towards Sea Hampton. Security camera footage from front gate has confirmed the vehicle turned right towards Sea Hampton. As you would be aware under our licence to operate this route is not permitted to be used for deliveries in/out of our site as per the Road Transport Protocol.

This incident will be reported to the Department of Planning as a breach of the RTP.

Could you please supply a statement from the Driver as to why he used this route, please also confirm if the driver has a copy of the 2019 RTP & if a copy of the memo suggested as a control for the last non-compliance incident was attached to his delivery documents.

Please supply this information ASAP as there is a limited window for reporting of incidents to the DPI.

Regards

A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

General

Message protected by MailGuard: e-mail anti-virus, anti-spam and content filtering.
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<http://www.mailguard.com.au/it>

Kurri Kurri

Orica Australia Pty Limited
ACN 004 117 828

1151 George Booth Drive Richmond Vale NSW 2327 Australia
Tel +61 2 4939 3789 Fax +61 2 4939 5159

15 April 2020

Department of Planning Industry and Environment
320 Pitt Street
SYDNEY NSW 2001

Orica Australia Pty Ltd (Orica) and Department of Industry and Environment (DPIE)
Orica Kurri Kurri Site
MP 09_0090 Schedule 4, Condition 3

Dear Sir/Madam

I am writing to advise DPIE in accordance with DPIE's letter to Orica of 9 August 2019 requesting Orica advise DPIE of any breaches involving heavy vehicle parking and unauthorised haulage route events (i.e. truck movements not in accordance with the designated route in the amended Orica Road Transport protocol (**Orica RTP**)). I have summarised the details of an unauthorised haulage route event below:

Date of Event:	14 April 2020
Event:	A haulage contractor travelled via an unapproved route along George Booth Drive through Sea Hampton when leaving the Orica Kurri Kurri site and not via the designated route in the Orica RTP
Heavy Vehicle Operator:	McColls Transport Company. The truck driver was not an Orica employee
Community Complaints	No community complaints were received to the site's Community Complaint Hotline

Orica's RTP was amended on 30 May 2019 to include designated access routes and parking locations for heavy vehicles making deliveries to or from the site, which were not previously included in the RTP. The Orica RTP has been provided to its contractors that provide truck haulage services to the site.

Orica has engaged with all its contractors and cartage providers in earnest to ensure they are well versed in the RTP.

In the circumstances of this incident, where:

- there is no indication that community members were adversely affected;
- there were no complaints in relation to this incident via the site's community complaints hotline; and
- under Roads & Maritime Service rules the truck could travel this route without restriction,

General

we feel the incident was at the low end of the scale of objective seriousness. Nevertheless, we are cognisant that DPIE has requested that Orica advise it of transgressions involving heavy vehicle parking and haulage route events

As noted in our previous correspondence, we still seek clarity on this condition from DPIE particularly on significance and its definition.

Please let us know if DPIE requires any further information regarding this event and feel free to contact Richard Powell 0417 809 026 if you would like to discuss.

Yours sincerely

David N Horne

Senior Supervisor Plant Downstream Manufacturing, Kurri Kurri
Orica Australia Pty Ltd

+

Allan McClelland

From: David Horne
Sent: Thursday, 16 April 2020 2:53 PM
To: Allan McClelland; Richard Powe; Richard Lissenden
Subject: FW: [EXTERNAL] Richmond Vale Ammonium Emulsion Facility - Post Approval Document Received - (MP09_0090-PA-8)
Attachments: datacontent\magerial\magis\New_DPE_Logo1561956956365.png

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

Kind Regards
David M Horne
Senior Supervisor
Orica - Kurri ANE Plant
Ph. +61 4939 3789
Mob. +61 427004693

Confidential

From: no-reply@majorprojects.planning.nsw.gov.au <no-reply@majorprojects.planning.nsw.gov.au>
Sent: Thursday, 16 April 2020 2:52 PM
To: David Horne <david.horne@orica.com>
Cc: David Horne <david.horne@orica.com>
Subject: [EXTERNAL] Richmond Vale Ammonium Emulsion Facility - Post Approval Document Received - (MP09_0090-PA-8)

Dear David,

Thank-you, your post approval document in relation to the Richmond Vale Ammonium Emulsion Facility has been received by the Department. Details of this document are below.

Date Lodged
16/04/2020

Document Name
2020.04.15 Notification

Description of Document
Notification of Non-compliance to Road Transport Protocol

Applicable Conditions

Schedule	Condition
4	3
3	10

To sign in to your account click [here](#) or visit the [NSW Projects Website](#)
Please do not reply to this email.

Kind regards

Department of Planning, Industry and Environment



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Toolbox Topics – April 2020



AGENDA

1. Review action items raised at last month's meeting;
2. Communicate & discuss monthly toolbox topics;
3. Document new issues raised;
4. Remind all present at tool box talk to sign attendance record;
5. Complete and return Presenters Guide & Checklist;
6. Place issues raised – action sheet on WH&S (Safety) Noticeboard.

Item 1: Review previous month's issues raised

- Review Issues raised from previous toolbox meeting.
- Review whether issues/actions raised have been addressed and closed out.
- All items still open are to be transferred and documented to this month's action sheet.

Item 2: Orica Kurri ANE Plant – Site access

- Designated Truck Route to Orica's Kurri ANE Plant is via John Renshaw and South on George Booth Dr Only, as set out in the Kurri ANE Plant's Road transport Protocol – 2019
- **You are NOT to travel through Seahampton**
- Limit your use of Engine Brakes when passing the plant's neighbours
- Only use approved parking areas enroute, and NOT on George Booth Dr



Toolbox Talk V1 – Record of Training & Consultation



How can I communicate effectively?

- **First Impressions count** – Show enthusiasm, and deliver a clear message about the importance of health and safety.
- **Know your audience** – At times there may be a mixture of personnel present at the meeting, i.e. admin and drivers or even mechanics.
- **Keep it simple and be consistent with your messages** – Use short, straightforward, simple words and phrases. Avoid slang words or jargon.
- **Demonstrate respect** – Listen to what your workers have to say, and show you are listening through your body language.
- **Think about the tone of your voice** – Workers are more likely to listen if you vary the tone of your voice.
- **Think about the pace of your delivery** – It's natural to rush when you are nervous. Take the time to slow down. Allow enough time, approx. 10-15 minutes.
- **Use open questions to check understanding** – Ask your listeners to run through their understanding of what you have said. If you ask 'Do you understand?' People tend to say 'yes' even when they mean 'no'.
- **Some people may need more explanation than others** – Give yourself plenty of time. If you rush you may come across as impatient or not interested and listeners may not feel able to ask you any questions.
- **Keep it positive** – Focus on what workers can do to create a healthy and safe working environment. Do not read from a script, you will lose the interest of your audience if you do.

1. Presenters Checklist – Select ☒

1. Begin toolbox meeting by reviewing issues raised from previous meeting ☒
2. Document previous issues still outstanding on this month's action sheet ☒
3. Document completed issues as closed on this month's action sheet ☒
4. Confirm all participants have signed the attendance sheet ☒
5. Document new issues or comments raised on this month's action sheet ☒
6. Confirm presenters checklist, issues raised and attendance sign-off sheet are completed ☒
7. Return all the sheets back to Joe Boras ☒
8. Place issues raised – action sheet on WH&S (Safety) Noticeboard ☒

NOTE: Any significant concerns raised should be taken up with Joe Boras immediately

2. Presenters Sign-Off

Presenters Name:	Signature:	Date Presented:
EDWIN HILLMAN	<i>Edwin Hillman</i>	24/9/2020
Division:	Site/Depot:	Start Time:
BCD	PRESTONS	____:____ AM/PM

Authorised By: National WH&S Manager

Issue Date: January 2015

Page 1 of 3

Last Review: May 2017

"Printed copies of this document are uncontrolled"

Version 1

Please forward completed documents to Joe Boras

Toolbox Talk V1 – Record of Training & Consultation



3. Issues raised – Action Sheet

ISSUE/COMMENTS RAISED	ACTION BY WHO	ACTION BY WHEN (DATE)	COMPLETED DATE
* MICROWAVE NEEDS REPAIRING - TIPS ELECTRIC	EDWIN	30/4/20	
* LIMIT TO LOWEST STILL DRILLS FORWARD,	WADE	30/5/20	
* FIRE EXTINGUISHER TRAINING - PRACTICAL	SAFETY	30/5/20	
* ADD BREAK COLUMN TO RUNSHEETS.	ACCOUNTS	2020.	

4. Record of Training

#	PRINT FULL NAME	SIGNATURE	DIVISION/JOB CLASS (CIRCLE ONE)	DRIVERS ONLY PROFIT CENTRE
1	B Cassa		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR <u>Operations</u> Mechanic Wash-Bay	0220
2	Allythe		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR <u>Operations</u> Mechanic Wash-Bay	0220
3	Michelle McKie		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR <u>Operations</u> Mechanic Wash-Bay	0220
4	Steven King		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
5	GURIE DEOL		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
6	Wahm Him		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
7	ALAN MARSHALL		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	0220
8	Jyson Batap		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	0220

Authorised By: National WH&S Manager	Page 2 of 3	
Issue Date: January 2015	"Printed copies of this document are uncontrolled"	Version 1
Last Review: May 2017		

Please forward completed documents to Joe Boras

Toolbox Talk V1 – Record of Training & Consultation



#	PRINT FULL NAME	SIGNATURE	DIVISION/JOB CLASS (CIRCLE ONE)	DRIVERS ONLY PROFIT CENTRE
9	MICK MURPHY		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
10	SAAD MAHDI		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
11	JASON STENNET		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
12	Leigh Foster		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
13	Varinder Singh		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
14	DEAN SEMURZYK		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
15	RAY WILKINSON		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
16	AMANDEEP		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
17	CHARANPREET		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	
18	Craig Turner		DRIVERS ONLY: FPUD BFGD BCD Admin. Finance IT HR Operations Mechanic Wash-Bay	

5. Additional Comments

Authorised By: National WH&S Manager

Issue Date: January 2015

Last Review: May 2017

Page 3 of 3

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Version 1

Please forward completed documents to Joe Baras

Events

Responsible Entity

Event ID 2020-00054378

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor Allan McClelland - 13799 {Main}

Nominate a Validator David Horne - 5823 {Main}

Source Web UI

Log Book ×

Identification

Short Description Truck parked on George Booth Drive after loading at Plant

Event Date (Local Time) 16/01/20 03:30 pm

Reported Date (Local Time) 16/01/20 04:35 pm

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 16/01/20 03:30 pm

Reported Date (My Time) 16/01/20 04:35 pm

Lag Time 0 Day(s)

Reported by Allan McClelland

Details

Classification Non Compliance or Breach

Confidentiality Normal

Risk Categories Transport related incident

Severity 0 - Report Only

Reportable to Authority Yes

Related Event(s)

Comment 07/02/20 10:50:27 am - Allan McClelland - 13799 {Main}
...manually changed the workflow FROM Investigation/Action Planning TO Awaiting Investigation/Action Completion

Location

Location Type In Transit - Product Distribution

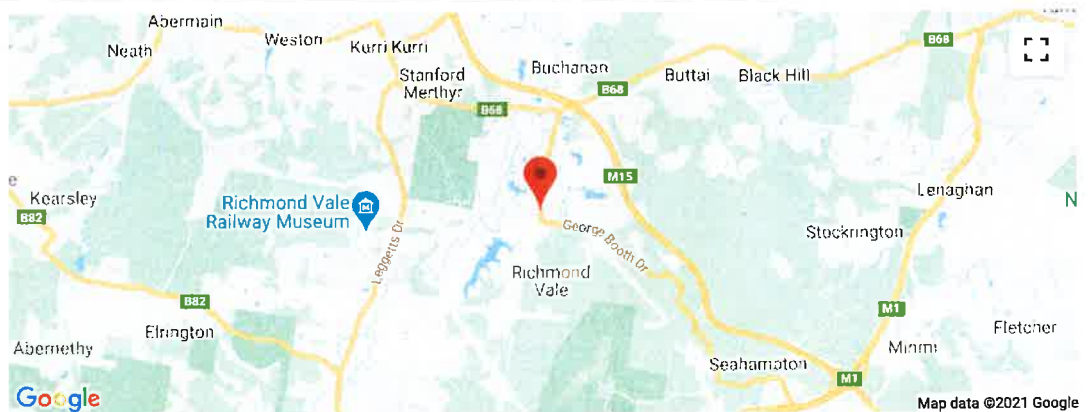
Area On Road / Highway

Carrier Name Rockys Own Transport Co

Specific Area George Booth drive

Address

Maps Manager



Description

Report (Site language) Truck loaded ANE at plant, then left site. At 15:15 an Orica employee on his way home has seen the truck parked on George Booth Drive & stopped to advise the Driver he was not allowed to park on George Booth Drive & that he was in breach of the Orica ANE Plant Road Transport Protocol. Orica employee also witnessed the Driver smoking near to the truck.

Was the activity being performed Controlled by Orica

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a Misfire?

Immediate Action Taken

Immediate Action(s) Taken Driver was directed to move on immediately which he complied with. Orica

employee then notified ANE Plant Supervisor of incident.

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required?

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 07/02/20 11:15:42 am

Under Investigation

Number of Actions 2

Number of Closed Actions 2

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 1

Number of Closed Investigations 1

Statement Count 0

Evidence Count 0

Causes Count 1

Changes Count 0

Created by Allan McClelland - 13799 {Main} on 16/01/20 04:55:50 pm

Last modified by Allan McClelland - 13799 {Main} on 07/02/20 11:38:17 am

Subscription Status: (On / Off)

Action Plans

Action Plan ID	Workflow Status Title	Entity	Sources	Short Description	Type	Priority	Person Responsible	Deadline
2020-AP00171655	Closed	Kurri Kurri: ANE Plant (MSO)	1 source	Change method of site induction delivery	Corrective	Low	Allan McClelland	-
2020-AP00171653	Closed	Kurri Kurri: ANE Plant (MSO)	1 source	Update site induction & assessment	Corrective	Low	Allan McClelland	-

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	Truck parked on George Booth Drive after loading...	Real (actual severity)	Non Compliance or Breach of Licence		0 -NC Report Only: no breach, may notify	1 -NC Minor: reportable, Fine <\$100K
Kurri Kurri: ANE Plant (MSO)	Driver smoking within 15 meters of ANE tanker	Real (actual severity)	Non Compliance or Breach of Licence		0 -NC Report Only: no breach, may notify	1 -NC Minor: reportable, Fine <\$100K

Agency Notifications

There are no results.

Investigations

Entity	Investigation Status	Short Description	Initial Due date	Due Date	Date investigation Completed	Person Responsible
Kurri Kurri: ANE Plant (MSO)	Closed	ROTC truck observed parked on GBD & smoking...	08/03/20	08/03/20	07/02/20	Allan McClelland

Statements

There are no results.

Evidence

There are no results.

Causes

Method	Primary Cause	Root Cause	Contributing Factor
Basic	Did not know job Procedure(s) Failure to follow known job procedure(s)	Knowledge and skill training (Failure to follow standards)	

Changes

There are no results.

ENABLON EVENT

2020 - 00054378

ANE Tanker parked on George Booth drive after loading at plant

INVESTIGATION

5.2.2020

Investigation carried out by Orica.

Event Summary: - ROTC ANE tanker parked on George Booth Drive after loading at plant, non-compliance with RTP

- Driver smoking within 8 metres of vehicle

- Driver brought ignition source (lighter) onto ANE Plant, non-compliance with Orica policy

Location: Kurri ANE Plant

Event Date: 16.01.2020

Event Time: 15:30 hrs

Reported By: Allan McClelland / David Horne

Reported Date: 16.01.2020

Reported Time: 16:35 hrs

Attachments:

Delivery Docket

Email account of incident details – David Horne

Statement of Record of Interview – ROTC, Corey Richards

ROTC formal response including investigation & corrective actions

Notification of Incident letter to DPI&E

Site Induction record for Driver

Timeline of Events:

14.01.2020 – Driver attended site for the first time & completed Site Induction

16.01.2020, 15:10 hrs – ROTC vehicle parked on George Booth Drive

16.01.2020, 15:15 hrs – David Horne (Orica) observed truck parked on GBD with driver standing nearby smoking & stopped to inform Driver of non-compliance to RTP & Orica policy & potential breach of NSW DG Law

16.01.2020, 15:20 hrs – Driver continued on with journey

16.01.2020, 15:20 hrs – David Horne notified ANE Plant Supervisor on non – conformance

16.01.2020, 16:35 hrs – Enablon Incident report raised

17.01.2020, 09:35 hrs – Incident reported to SER Supply Chain Team Leader for escalation

17.01.2020, 13:08 hrs - Notification of Incident letter submitted to DPI&E

15.02.2020 – Investigation report with Corrective actions & action completed dates received from ROTC

Operation: Delivery of ANE from Kurri ANE Plant to Tarong by ROTC via road transport.

Background: All heavy vehicle movements in & out of Kurri ANE site are governed by our Road Transport Protocol Document. This document forms part of our Licence to Operate approval issued by the Department of Planning Industry & Environment is reviewed on a regular basis. All heavy vehicles entering / leaving Kurri ANE Plant must carry a copy of the RTP document with them. The document outlines requirements for heavy vehicle movements including designated route's for heavy vehicles moving to & from site. It also contains specific instructions regarding designated truck parking areas on route to the site.

There have been multiple incidents of this type in the past detected by Orica.

As directed by DPI&E the RTP was updated in May of 2019 with specific instructions surrounding designated parking areas to be used. The updated RTP was issued to all contractors that provide truck haulage services to the site.

Orica policy/procedure does not allow smoking or ignition sources within 15m of vehicles carrying ANE.

Orica procedure does not allow ignition sources of any kind into the ANE Plant site. Induction states ignition sources must be left in box provided at plant entry.

Root Cause: Failure of Haulage contractor to comply with RTP, Failure of haulage contractor to conform with Orica procedures on control of ignition source's entering plant area & smoking within 15m of vehicle carrying Ammonium Nitrate.

Contributing Factor:

Driver did not understand requirement for no parking on GBD or requirement for ignition source's to be taken onto plant area.

Driver believed at the time of incident that he was allowed to smoke within 8 meters of the vehicle

Observations;

Driver had attended site for the first time 2 days prior to incident. Site induction was completed at this time. Induction clearly states requirements for no parking on GBD, no smoking within 15m of vehicle carrying Ammonium Nitrate & no ignition sources to be taken into plant area.

It is a requirement of Dangerous Goods law in NSW to only park in DG approved parking areas.

Inconsistencies exist between Orica procedure & ROTC procedure on separation distances when smoking near vehicles.

ROTC Journey Management Plan did not clearly identify restriction to parking on GBD

Site induction delivery method used was to allow Driver to complete induction by himself using computer presentation.

Site induction assessment does not contain a direct question around restriction of parking on GBD or non-designated parking areas.

Recommendations:

Ensure all suppliers & heavy vehicle haulage providers are aware of current revision of RTP & are compliant with all conditions contained in documents.

Ensure all Drivers of heavy vehicles delivering to or from site have a copy of RTP in vehicle & are aware of their responsibilities.

Inductions to be conducted one on one explaining the key points, for truck drivers focus on driver code of conduct and compliance with Road Transport Protocol

Update site induction with reference to latest version of DG code.

Update site induction assessment to include a direct question relating to parking restrictions.

ROTC transport to implement all recommendations included in their investigation report

Action:

Orica Operators to perform at least one Haulier Audit on all Drivers of heavy vehicles entering site in the next 6 months to ensure compliance with RTP.

Update site induction with reference to latest version of DG code.

Update site induction assessment to include a direct question relating to parking restrictions.

ROTC transport to implement all recommendations included in their investigation report

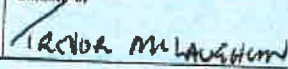
Attachments:



Delivery Docket

Page 01 of 1

Plant Copy

Emergency Response Number 1800 033 111				
Deliver To Orica-TARONG Orica Australia Pty Ltd Tarong Plant C/- Tarong mine Ph 07 4136 9267 TARONG QLD 4315	Truck KURE	Dispatch Ex 86613200 2667641	Date/Time Required 18.01.2020 00:00:00	
	Orica Order No. 4501343176	No. of Pallets TARO	Customer Order No.	Dispatch Date/Time 18.01.2020 In: 13:51:10 Out: 14:47:57
Instructions to Store				
Container No 1: Container No 2:				
Material Description				
Authorised Receiver Orica : Henry Grzazek, Jens Hetzel, Luke Dixon, Michael Cleary, Perry Harding, Phillip Cresswell, Riley Bestrynski, Steven McKie				
UN 3375 CLASS 5.1 , PG II AMMONIUM NITRATE EMULSION SEP130VPN ANE 130VP NON-REACTIVE ✓				
38.32 TNE				
Orica NATIONAL EMERGENCY RESPONSE SYSTEM: FOR 24 HOUR AUSTRALIA WIDE ASSISTANCE ON Orica PRODUCTS , PHONE TOLL FREE: 1800 033111 FROM SATELLITE PHONE: 03 9663 2130				
Seal Numbers (1-7) Seal Numbers (8-14) Seal Numbers (15-21) 1152028 R 968913 1152045 R 968958 ✓ 968812 R 968966 968899 968934 968990 ✓ R 968907				
				
Camp: 0000021394 ROCKY'S OWN TRANSPORT - AN				
Driver Name/Delivery Driver COREY Richards		Driver Signature 		Truck No. XQ55EP YQ33EU YQ36EU
Customer Name (please print) ROCKY'S OWN TRANSPORT		Customer Signature 		Batch No. 112
Net Weight Gross 63.69 Tara 25.36 Net 38.32				
* Trademark Orica Australia Pty Ltd 1 Nicholson Street Melbourne Vic 3000 ACN 004 117 828				

Allan McClelland

From: David Horne
Sent: Wednesday, 29 January 2020 10:23 AM
To: Natalie Botham; Karen Hartcher
Cc: Allan McClelland; Richard Powell
Subject: RE: ROTC Incident

as discussed

Kind Regards
David N Horne
Senior Supervisor
Orica - Kurri ANE Plant
Ph +61 4939 3789
Mob +61 427004693

General

From: David Horne
Sent: Friday, 17 January 2020 12:49 PM
To: Natalie Botham <natalie.botham@orica.com>; Karen Hartcher <karen.hartcher@orica.com>
Cc: Allan McClelland <allan.mcclelland@orica.com>; Richard Powell (richard.powell@orica.com) <richard.powell@orica.com>
Subject: ROTC Incident
Importance: High

Hi All

The ROTC driver had a number of Non Compliances yesterday which I will outline below

1. Parking on George Booth Drive contrary to Road Transport Protocol, this has been communicated to all our contractors
2. Smoking within 15 metres of a Placarded Dangerous Goods Vehicle of Class 5 (carrying Orica Product with Orica Emergency contact details on the EIP)
3. Bringing an ignition source onto a Dangerous Goods Plant against the Plant Induction Policy as below.
4. In possession of a cigarette lighter on a Dangerous Goods Vehicle. Re: (Dangerous Goods Regulation 2014)

I would suggest Orica needs to make a stand with their contractors, this can not continue as the DPIE will potentially completely lose any sense of humour or fair play.

eg: Ban from all Orica work and Sites.



NSW legislation

Browse | As Made | Search | Bills | Notification Gazette | Leginfo | Links

Contents 2014 - 94 [Skip to content](#)

Dangerous Goods (Road and Rail Transport) Regulation 2014

Status information

- Part 1 Preliminary
- Division 1 Introductory and application
 - 1 Name of Regulation
 - 2 Commencement
 - 3 Main objects
 - 4 Dangerous substances
 - 5 Excluded transport
 - 6 Further exemptions
 - 7 Special provisions for loads of trade and dangerous goods for private use
 - 8 Goods suspected of being dangerous goods
- Division 2 Interpretation
 - 9 Definitions
 - 10 References to codes, standards and rules

143 Control of ignition sources

(1) This clause applies to a road vehicle transporting

- (a) a load that contains
 - (i) dangerous goods in a receptacle with a capacity of more than 200 litres, or
 - (ii) more than 500 kilograms of dangerous goods in a receptacle; and
- (b) the dangerous goods are UN Division 2.1, UN Class 3, 4 or 5 dangerous goods or dangerous.

(2) The driver of the road vehicle must not

- (a) have matches or a cigarette lighter in his or her possession in the road vehicle; or
- (b) smoke in the road vehicle.

Maximum penalty: 40 penalty units.

(3) The driver must do everything practicable to ensure that any other person in the road vehicle does not

- (a) have matches or a cigarette lighter in his or her possession; or
- (b) smoke.

Maximum penalty: 40 penalty units.

Smoking Policy

No Smoking on ANE Plant Including E-Cigarettes

Kurri Technical Centre is a NON-SMOKING Site

Note:

Smoking is not permitted:

- Within 15m of MMU's or
Vehicles carrying explosives or Dangerous
Goods as per ADG7 clause 13.1.3.2.2.1

No lighters, matches or sources of ignition on
plant





Rocky's Own Transport Company

SEC FOR 040 Statement or Record of Interview Template

Statement No 001 Date 20/01/2020 Time 13:40

Witness/Participants Details

Full Name Corey Richards

Address

Work Contact No

Mobile No 0436334619

Occupation DG Driver

Employer ROTC

Investigators and Others Details

Statement/Interviewer Taker Russell Jackson

Observers Present

Place of Interview

Over the phone

Statement

Interview was conducted over the phone at 13:40hrs 20/01/2020

Corey stated that he had parked on George Booth Drive for a short break. On stopping he exited the vehicle and walked around the trailers. Corey stated that he moved to about 8 metres from the front of the vehicle and had a cigarette.

Corey was under the belief that it was OK to park on George Booth Drive so long as you were well away from any of the houses, he was not clear that there was no parking permitted on George Booth and John Renshaw Drives under the Journey management Plan for the route

When Corey was approached by Davis Horne (Orica) he recalled being told that he was not to smoke within 15 metres of the vehicle - responded by saying that it was OK so long as you are more than 8 metres. Reminded at this time of the ROTC procedure for a minimum of 10 metres separation.

Corey recalled being told that he was not allowed to carry any sources of ignition or smoking when transporting Dangerous Goods or Explosives - Discussion on what are the requirements for smoking paraphernalia and ignition sources - Corey understood the requirements for carrying these in a DG vehicle and stated that they cannot be on you person when operating the vehicle, must be away from the driver in a bag, glovebox or sealed container

At the time of interview Cory was reminded of the 10 metre rule for smoking and ignition sources and the securing of smoking and ignition sources in his carry bag or the vehicles glovebox.

Interview completed at 13:56

End of Statement (remove or cross out any blank lines above to ensure detail is not added once signed off)

Signature

Date



Rocky's Own Transport Company

SEC FOR 039 ICAM Incident Investigation and Report

INCIDENT LOCATION: GEORGE BOOTH DRIVE KURRI KURRI NSW

INCIDENT NUMBER: RQ2944

INCIDENT CATEGORY: 0

DATE: 16/01/2020



**ROCKY'S
OWN**
TRANSPORT CO.

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Rocky's Own Transport Company

SEC FOR 039 ICAM Incident Investigation and Report

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1 Investigation Team and Charter

Investigation Team Leader: Russell Jackson

Investigation Team: Nathan Harris, Corey Richards

Peer Reviewers: Tony Bates, Bryan Smith, Rod Carige

Investigation Charter: To review the issues raised in a complaint issued by Orica re a driver parking in a restricted route and smoking too close to the vehicle and to identify the shortcomings surrounding the event.



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SEC FOR 039 ICAM Incident Investigation and Report

2 Description of the Incident

Orica (David Horne) discovered a parked ROTC vehicle on George Booth Drive. On pulling over to investigate the reason for the vehicle being parked in a restricted route. It was identified that the driver of the vehicle was smoking at the time and was not far enough away from the vehicle at the time. Other issues identified in the complaint on top of the parking and smoking was the bringing of sources of ignition into the Orica Kurri Kurri Plant and being in possession of a cigarette lighter.

The driver admitted to smoking a cigarette approximately 8 metres in the front of the park vehicle

Secondary issues raise - sources of ignition into the Kurri Kurri Plant

3 Background to the Incident

3.1 Personal Details

NAME:	Corey Richards
EMPLOYMENT COMMENCEMENT DATE:	09/09/2019
EMPLOYMENT PERMANENCY DATE:	
ROTC DEPOT BASE:	Yarwun

3.2 Licences and Authorisations

DETAILS	STATE ISSUED	Date of Issue
Driver's License MC 040940916	QLD	Exp: 04/09/2020
DG License 040940916	QLD	Exp: 30/10/2022
SSAN 002626	QLD	Exp: 04/10/2022

3.3 Training Completed

ROTC Induction training and SSAN transport training completed - refer to section [11.3 Records of Training](#)

3.4 Vehicle/s Details

Registration Number:	XQ 55 EP
ROTC Vehicle ID Number:	PM725
Make/Model:	Kenworth
Vehicle Type:	K200
Year:	2019
VIN:	6F5000000KA465859
Engine Number:	80165199
Date of Service: A service	20/12/2019

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SEC FOR 039 ICAM Incident Investigation and Report

3.5 Equipment details

Type	ANE Road Tankers
Brand	Truck Brokerage SA
Make/Model:	TK023 (YQ 35 EJ) TK024 (YQ 36 EJ)
Serial number	6W9229800KA032326 6W9299900KA032327
Date of service	09/01/2020

4 Interview/Discussion

[Identify the key activities, actions, observations and thoughts that occurred in the time leading up to the incident and of the incident itself. This information will start to assist in the timeline/sequence of events to lead up to the event. The interview information will guide further questioning or data gathering to support statements and actions.]

Interview over the phone conducted - transcript attached section [11.1 Records of Interview/Statements](#)





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5 Timeline of Events

[illegible]



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6 Information Data Set

Organisation	Environment	Equipment	Procedures	People
Training all up to date		Vehicle and trailers new - end 2018	COR PLA 001 SSAN and Explosives Transport Management Plan	Driver interpretation of parking requirements on George Booth drive was not to park near any houses - did not recall no parking rule
Training in specific transport routes are at the time of scheduling drivers - review of JMP		All in current service	OPS PRO 006 Explosives Transport Procedure - section 5.1 General safety - 10 metre control of all sources of ignition	Driver stated smoking about 8 metres in front of the vehicle
Information in JMP not clear on parking restriction			OPS PRO 081 SSAN Long Haul Procedure - Section 6.1 General Safety 10 metre smoking rule	
Onca's Richmond Vale ANE Production Facility - Heavy vehicle road transport protocols			Procedures need to reflect the requirement of ADG7 8 section 13.1.3.2.3, 15 metres from naked flame	
Completed Kurri induction 14 January 2020 - 2 days prior - parking restrictions are covered as part of the induction				

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Date Created: 16/10/2017



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SEC FOR 039 ICAM Incident Investigation and Report

7.0 Incident Causation Data

From the information data set you can determine what actions, processes, procedures, skills, knowledge

Organisational Factors	Task/Environment Conditions	Individual/Team Actions	Absent/Failed Defenses	Consequence
JMP has not clearly defined the parking restrictions applied to George Booth Drive and John Renshaw Drive		Smoking approximately 8 metres from the front of the SSAN vehicle	Driver did not fully apply the safety distance for smoking from the SSAN transport vehicle - under 10 metres	
		parked vehicle in a restricted route - George Booth Drive and John Renshaw Drive have a no parking on roadside restrictions - did not fully understand the requirements		Breach of ROTC procedure Breach of Onca's AHE Plant approval protocols

8 Root Cause Analysis

A root cause is a condition, action or event that if it was removed from the sequence of events leading to the incident the incident could not have occurred

Root Cause/s identified:

Driver was not fully aware of the no parking restrictions on George Booth drive at the time of the event

Driver did not apply the correct safety distance from the vehicle when lighting and smoking a cigarette

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8.1 - Root Cause Summary

Driver at the time was applying the separation rule he was educated in for the separation distances for parking a placard load of DG from another placard load of DG - 8 metres - not the ROTC smoking and sources of ignition rule of 10 metres

Driver had not interpreted or recall the specific parking rules for George Booth Drive appropriately - Site induction training completed 2 day earlier

8.2 Contributing Factors

JMP has not clearly identified the restrictions for George Booth Drive and John Renshaw Drive

9 Findings

The driver involved in this event was not in deliberate violation of the procedures and requirements for parking on George Booth Drive or the separation distances for smoking from the vehicle. The investigation determined that Mr Richards had not fully understood the specific parking restrictions and the appropriate separation distances for sources of ignition

The second component to this issue was the bringing of sources of ignition onto the Kum Kum Plant. Drivers are required to place all sources of ignition - lighters, matches, cigarettes, gas cookers/gas cylinders (if carried) into the box at the Kum plant access gate and retrieve on their way out. - The investigation has clarified that the NSW Dangerous Goods (Road and Rail) Regulation 2014; section 143 Control of ignition sources, enables the driver to have the ignition sources in a container stored in the dog (tool) box on the side of the vehicle cabin so the driver has to stop the vehicle and exit the cabin to be able to access them. Sources of ignition must not be on their person or within reach whilst in the vehicle



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10 Corrective Actions

Recommendations:	Responsible person	Completion Date	Date completed
Develop and Issue a SIB for all ANE drivers on the parking restrictions for George Booth and John Renshaw Drives at Kurni NSW	Russell Jackson	21/01/2020	SIB 075 21/01/2020
Develop and issue a SIB on the requirements for carrying smokes, lighters and other sources of ignition in a DG and Explosives Vehicle	Russell Jackson	03/02/2020	SIB 077 03/02/2020
Update JMP from Kurni Kurri to clearly identify the restriction to parking on George Booth and John Renshaw Drive	Brendan Meagher	28/01/2020	21/01/2020 Uploaded onto Intranet
Update all Explosives and SSAN transport procedures to reflect 15 metre rule for smoking or sources of ignition - replace 10 metre rule in line with a higher customer (Orica) standard	Russell Jackson Brendan Meagher Ned Kelly	07/02/2020	
Issue SIB on the changes to the 10 metre smoking rule to be taken out to 15 metres to cover for all the DG loads we now carry - apply one rule across the business	Russell Jackson	28/01/2020	SIB 075 21/01/2020
Issue SIB on Orica Kurni Kurri requirements of no sources of ignition to enter the plant - to be placed in box by access gate	Russell Jackson	04/02/2020	03/02/2020



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11 Appendix

11.1 Records of Interview/Statements



C Richards
Statement

11.2 Images of the Incident/scene

11.3 Records of Training

ROTC										
Personnel Training Report										
Personnel Name	Training Description	Completed By	Commence Date	Complete Date	Start Date	Finish Date	Ref No	Location	Status	Comments
RESEARCH - RECORDS COPY										
APM	COR PLA 202 Advance Package Management	AE.L.F.G	10/06/2019	10/06/2019	09/06/2021	30/06/2021				NO
ANCA	Advanced Mobile Platform	AE.L.F.G	16/10/2019	16/10/2019	15/09/2021	15/10/2021				NO
CHABL	Changing Data Procedure & RA	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
CHALD	Changing Light Plug Procedure & RA	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Transfer Manual	AE.L.F.G	12/06/2019	12/06/2019	09/07/2021	09/09/2021				NO
COR PLA	System Operator Transport Management Plan	AE.L.F.G	11/09/2019	11/09/2019	09/07/2021	09/09/2021				NO
COR PLA	Developmental Policy	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Workplace Health and Safety Policy	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Injury Management & Rehabilitation Plan	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Quality and Reliability Policy	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Security Policy	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Privacy & Confidentiality Policy v1	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Workplace Behaviour Policy v1	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Fitnes for Duty Policy v1	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Order of Responsibility Policy v1	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Social Media Policy v1	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Location Policy Outside Site	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Risk Reduction Policy	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Workplace Grievance	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Management of Change Procedure	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Speed Management Strategy	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Mobile Phones & Distraction Device	AE.L.F.G	26/06/2019	26/06/2019	09/07/2021	30/09/2021				NO
COR PLA	Cyber Security	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Low Risk Driving	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Maintenance Management	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Process	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Asset Management Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Road Traffic Management Plan	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Security Risk Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Fire Risk Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Lost Asset Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Procedural Request Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Procedural Request Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Vehicle Day Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Driver Day Procedure	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Container Handling Procedure & Risk Ass	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO
COR PLA	Coupling and Uncoupling	AE.L.F.G	12/06/2019	12/06/2019	11/07/2021	11/09/2021				NO



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ROTC

JOHN CASH

Page 3

1. *Chlorophyll a*

Personnel Training Report

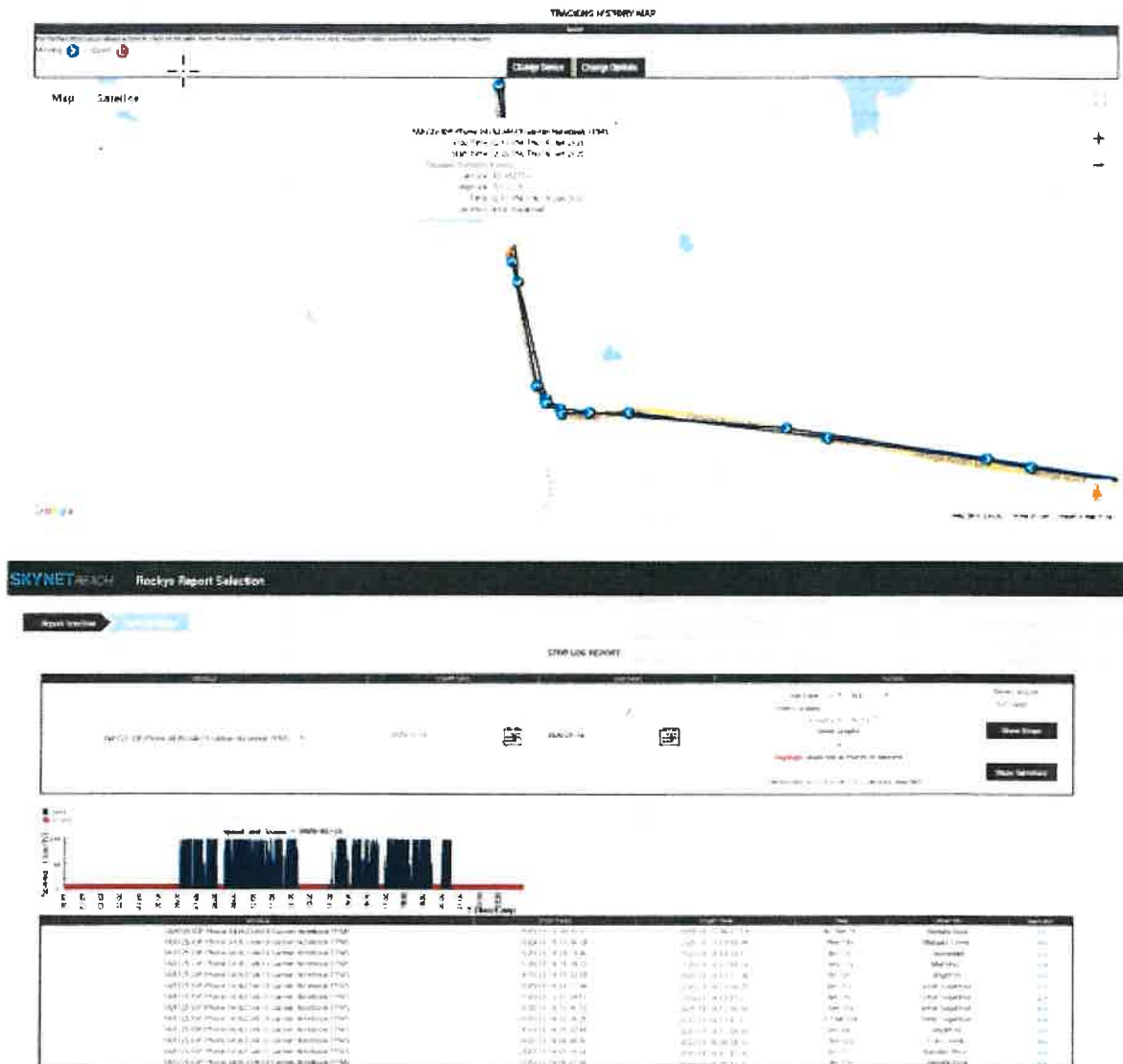
[illegible]



Rocky's Own Transport Company

SEC FOR 039 ICAM Incident Investigation and Report

11.4 Records of GPS Tracking Data



Allan McClelland

From: David Horne
Sent: Monday, 20 January 2020 11:28 AM
To: Ann Hagerthy
Cc: Allan McClelland; Richard Powell; Heidi Watters
Subject: RE: MP 09_0090 Schedule 4 Condition 3

Hi Ann

Acknowledge the department's response. Thanks

Kind Regards
David N Horne
Senior Supervisor
Orica - Kurri ANE Plant
Ph. +61 4939 3789
Mob. +61 427004693

General

From: Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>
Sent: Monday, 20 January 2020 11:22 AM
To: David Horne <david.horne@orica.com>
Cc: Allan McClelland <allan.mcclelland@orica.com>; Richard Powell <richard.powell@orica.com>; Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>
Subject: [EXTERNAL] RE: MP 09_0090 Schedule 4 Condition 3

Hi David,

Thank you for the notification of the incident. The Department has logged the non-compliance and will take no action at this time. In response to your letter, please continue to report similar occurrences.

Regards,

Ann Hagerthy

Senior Compliance Officers

(Mon-Thu)

Planning & Assessment - Compliance | Department of Planning, Industry and Environment

T 02 6575 3407 | M 0428 976 5401 | E ann.hagerthy@planning.nsw.gov.au

PO Box 3145 | Singleton NSW 2330

Please direct all email correspondence to compliance@planning.nsw.gov.au

www.dpie.nsw.gov.au



Planning,
Industry &
Environment

The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

From: David Horne <david.horne@orica.com>

Sent: Friday, 17 January 2020 1:08 PM

To: Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>

Cc: Allan McClelland <allan.mcclelland@orica.com>; Richard Powell <richard.powell@orica.com>

Subject: MP 09_0090 Schedule 4 Condition 3

Importance: High

Hi Ann

please see attached letter regarding B-Double Tanker parked on George Booth Drive yesterday afternoon 16.01.2020, as summarised there was no physical impact or injury or community complaint, parking issue was detected and driver was moved on by Orica employee max time of parking was a ten minute period. Please call me when you return to work if you have any questions.

I have submitted this via the portal as well. Thanks

Kind Regards

David N Horne

Senior Supervisor

1
Allan McClelland

From: David Horne
Sent: Friday, 17 January 2020 1:08 PM
To: ann.hagerthy@planning.nsw.gov.au
Cc: Allan McClelland, Richard Powell
Subject: MP 09.0090 Schedule 4 Condition 3
Attachments: 2020.01.17 INCIDENT LETT_001.pdf

Importance: High

Hi Ann

please see attached letter regarding B Double Tanker parked on George Booth Drive yesterday afternoon 16.01.2020, as summarised there was no physical impact or injury or community complaint, parking issue was detected and driver was moved on by Orica employee max time of parking was a ten minute period. Please call me when you return to work if you have any questions.

I have submitted this via the portal as well Thanks

Kind Regards
David N Horne
Senior Supervisor
Orica Kurri ANE Plant
Ph. +61 4939 3789
Mob. +61 427004693

General



Kurri Kurri

Orica Limited
ABN 99 0041178281151 George Booth Drive Richmond Vale NSW 2327 Australia
Tel +61 2 4939 3789 Fax +61 2 4939 5159

17.01.2020

Department of Planning Industry and Environment
320 Pitt Street Sydney NSW 2001**Re: MP 09_0090 Schedule 4, Condition 3**

Dear Sir, Madam

This email is to advise DPIE of an event that occurred on 16th January 2020 where a truck leaving Orica Australia Pty Ltd.'s (Orica) site at Kurri Kurri parked on George Booth Drive for a period of less than ten minutes in a location that was not identified as a heavy vehicle parking location in Orica's Road Transport Protocol (RTP) for the site. Orica's RTP was recently amended to include designated parking locations for heavy vehicles making deliveries to or from the site, which were not previously included in the RTP. The amended RTP was approved by DPIE on 30 May 2019 and Orica has provided the amended RTP to its contractors that provide truck haulage services to the site. The relevant haulage contractor was Rocky's Own Transport Company (ROTC) the truck driver in question was not an Orica employee. OAPL has engaged our contractors and providers in earnest to ensure they are well versed in the RTP.

We do not regard the incident as significant, as there was no obstruction to traffic, the road is straight, and the vehicle was not in a populated area or near any community assets. Nor were any community members affected in any way. Nonetheless we note that in DPIE's letter to Orica on 9 August 2019, DPIE advised that Orica should advise it of similar incidents to those set out in that letter, and earlier correspondence between Orica and DPIE regarding heavy vehicle parking and haulage route events. As such, Orica is advising DPIE of the recent event on 16th January 2020 where a haulage contractor parked his vehicle on George Booth Drive and not in a parking location designated in the amended RTP. As described in our previous correspondence on reports of improvements identified, we still seek clarity from DPIE on significance and its definition.

Please let us know if DPIE requires any further information regarding this event and feel free to contact **Richard Powell 0417809026** if you would like to discuss.

Yours sincerely
David N Horne

A handwritten signature in black ink that reads "David N. Horne".

12. Name all areas where food can be consumed on site?

✓ 1 Lunch Room 2 BBQ AREA 3 Admin Building

13. Who should incidents / injuries be reported to?

✓ SNRMAN, SUPERVISOR, 2 IC.

14. Who is responsible for the environmental management on the plant?

✓ ALL EMPLOYEES & CONTRACTORS.

15. What actions need to be taken in the event of a spill?

✓ Report Immediately, Contain

16. What are the 3 principle areas for our 9 Golden Rules?

✓ 1 READ 2 WEAR 3 CHECK.

IF YOU CAN'T DO IT SAFELY, YOU CAN'T DO IT!

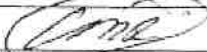
2.1 **PERSONAL DETAILS** – please print neatly so it is legible!

Full Name:	COREY Richards	
Residential Address:	10 YARALLA ST SHADSTONE WA 6150	
Contact Phone Number:	0459608603	
Emergency Contact Name and Phone Number:	Tony Bates 0437 829 692	
Company Name:	Rocky's Own TP4	
Company Phone:	0437 829 692	
Company Contact:	Tony Bates	
Drivers Licence Number:	040940916	Expiry Date: 18.04.20
Dangerous Goods Lic. Number:	040940916	Expiry Date: 30.10.22
SSAN Licence Number:	040940916	Expiry Date: 20.11.2024
Contractor Passport Completed:		
Kurri Swipe Card Number:		
Track and Trace Swipe Card:		

3.0 **COMPETENCY SIGN OFF**

I have read and understood the information in the induction screen show:

Contractor:



The above Contractor has satisfactorily completed the induction assessment.

Orica Representative:

Date:


14-1-2020

Events

Responsible Entity

Event ID 2020-00054690

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor Allan McClelland - 13799 {Main}

Nominate a Validator David Horne - 5823 {Main}

Source Web UI

Log Book 

Identification

Short Description McColls truck parked on George Booth Drive for 3 hours prior to entering site

Event Date (Local Time) 26/01/20 05:00 am

Reported Date (Local Time) 26/01/20 12:23 pm

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 26/01/20 05:00 am

Reported Date (My Time) 26/01/20 12:23 pm

Lag Time 0 Day(s)

Reported by Allan McClelland

Details

Classification Non Compliance or Breach

Confidentiality Normal

Risk Categories Transport related incident

Severity 0 - Report Only

Reportable to Authority Yes

Related Event(s) Truck parked on George Booth Drive after loading at Plant - 2020-00054378
Acetic acid tanker parked on George Booth drive to take break - 2019-00052979

Comment **21/04/20 12:56:10 pm - Allan McClelland - 13799 {Main}**
...manually changed the workflow FROM Investigation/Action Planning TO Awaiting Investigation/Action Completion

Location

Location Type In Transit - Product Distribution

Area On Road / Highway

Carrier Name McColl's

Specific Area George Booth Drive, directly opposite Orica site

Address

Maps Manager



Description

Report (Site language) Orica employee observed McColl's truck parked on GBD across road from Orica site at 05:00 am. Truck remained there until approximately 08:00 when he contacted control room to gain entry to site.

Was the activity being performed Controlled by Orica

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a

Misfire?

Immediate Action Taken

Immediate Action(s) Taken Instructed Driver that he was not allowed to park on GBD. Driver replied that he was aware that he was not supposed to park there but had been calling the site to get a delivery time but was not able to get an answer so came to site to use intercom as he thought our phones may have been out. Received a written statement from driver to that affect. Plant closes 18:00 on Friday & re-opens at 06:00 on Sunday.

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required? ☒

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 21/04/20 12:56:38 pm

Under Investigation ☒

Number of Actions 0

Number of Closed Actions 0

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 1

Number of Closed Investigations 1

Statement Count 0

Evidence Count 0

Causes Count 0

Changes Count 0

Created by Allan McClelland - 13799 {Main} on 26/01/20 12:44:39 pm

Last modified by Allan McClelland - 13799 {Main} on 21/04/20 12:56:38 pm

Subscription Status: (On / Off)

Action Plans

There are no results.

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	Truck parked on GBD contrary to Road Transport...	Real (actual severity)	Non Compliance or Breach of Licence		0 -NC Report Only: no breach, may notify	1 -NC Minor: reportable, Fine <\$100K

Agency Notifications

There are no results.

Investigations

Entity	Investigation Status	Short Description	Initial Due date	Due Date	Date Investigation Completed	Person Responsible
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Event Name	Investigation Status	Event Description	Initial Due date	Due Date	Date Investigation Completed	Person Responsible
Kurri Kurri: ANE Plant (MSO)	Closed	McColls truck parked on George Booth Drive for 3...	21/05/20	21/05/20	21/04/20	Allan McClelland
Kurri Kurri: ANE Plant (MSO)	Closed	McColls truck parked on George Booth Drive for 3...	21/05/20	21/05/20	21/04/20	Allan McClelland

There are no results.

Evidence

There are no results.

Causes

There are no results.

Changes

There are no results.

ENABLON EVENT

2020 - 00054690

McColls heavy vehicle parked on George Booth drive for 3 hours prior to entering site to unload

INVESTIGATION

5.2.2020

Investigation carried out by Orica.

Event Summary: - McColls heavy vehicle delivering E25 parked on GBD for 3 hours prior to delivering load, non-compliance with RTP

Location: Kurri ANE Plant

Event Date: 26.01.2020

Event Time: 05:00 hrs

Reported By: Allan McClelland

Reported Date: 26.01.2020

Reported Time: 12:23 hrs

Attachments:

Email report of incident

Statement of Record of Interview – McColls, Matt Phillips

Email response from McColls

Notification of Incident letter to DPI&E & email response

Timeline of Events:

26.01.2020, 05:00 hrs – McColls vehicle parked on George Booth Drive

26.01.2020, 05:30 hrs – Allan McClelland (Orica) observed truck parked on GBD

26.01.2020, 08:00 hrs – Driver contacted Control Room to gain entry to site

26.01.2020, 08:10 hrs – Orica Operator spoke with Driver regarding RTP non-compliance

26.01.2020, 12:23 hrs – Enablon Incident report raised

28.01.2020, 09:50 hrs – Incident reported to SER Supply Chain Team Leader

28.01.2020, 13:37 hrs – Incident reported to Orica Sourcing Manager for escalation with McColls

28.01.2020, - Notification of Incident letter submitted to DPI&E

Operation: Delivery of E25 from Deer Park to Kurri ANE Plant by McColls transport.

Background: All heavy vehicle movements in & out of Kurri ANE site are governed by our Road Transport Protocol Document. This document forms part of our Licence to Operate approval issued by the Department of Planning Industry & Environment is reviewed on a regular basis. All heavy vehicles entering / leaving Kurri ANE Plant must carry a copy of the RTP document with them. The document outlines requirements for heavy vehicle movements including designated route's for heavy vehicles moving to & from site. It also contains specific instructions regarding designated truck parking areas on route to the site.

There have been multiple incidents of this type in the past detected by Orica.

As directed by DPI&E the RTP was updated in May of 2019 with specific instructions surrounding designated parking areas to be used. The updated RTP was issued to all contractors that provide truck haulage services to the site.

Root Cause: Failure of Haulage contractor to comply with RTP

Contributing Factor:

Load scheduled for delivery on Sunday 26th January, Driver had been trying to contact plant from Friday evening to confirm delivery but was unable to contact anyone as the plant is closed Friday evening & re-opens 06:00 on Sunday.

Observations;

Driver had attended site on many previous occasions. Driver was aware of RTP restrictions on parking on GBD however on this occasion, instead of stopping in a designated truck parking area to wait until he could contact plant, chose to travel to site believing site phones may have been down due to Bushfires.

McColls transport claimed to only have the 2012 version of RTP available to issue to drivers. There have been multiple revisions of document since 2012.

Site induction assessment does not contain a direct question around restriction of parking on GBD or non-designated parking areas.

Recommendations:

Issue 2019 version of RTP to McColls transport & ensure compliance with all conditions contained in document.

Ensure all Drivers of heavy vehicles delivering to or from site have a copy of RTP in vehicle & are aware of their responsibilities.

Update site induction assessment to include a direct question relating to parking restrictions.

McColls transport to implement all recommendations included in their emailed response

Action:

Orica Operators to perform at least one Haulier Audit on all Drivers of heavy vehicles entering site in the next 6 months to ensure compliance with RTP.

Update site induction assessment to include a direct question relating to parking restrictions.

McColls transport to implement all recommendations included in their emailed response

Attachments:

Allan McClelland

From: Allan McClelland
Sent: Tuesday, 28 January 2020 9:50 AM
To: Rob Malcolm
Cc: Jesse Pryce; Richard Powell; David Horne; Natalie Botham; Karen Hartcher; Marissa Hayes
Subject: E25/66T delivery vehicle (McColls) parked on George Booth Drive

Hi All

We have had another instance of heavy vehicle parked on George Booth Drive opposite Orica site contrary to the Kurri ANE Road Transport Protocol. The contractor involved was McColl's Transport delivering E25 from Deer Park. The vehicle was parked there from 5:00am to 08:00am on Sunday 26/1/20. This incident requires notification to the Department of Planning which I will be completing today.

This is the 3rd such incident recently involving haulage contractors to / from site.

Rob

Could you please follow this up with McColl's Transport & provide an investigation report into the incident?

Please include the following details in investigation

- What steps have Orica taken to ensure McColl's Management are aware of RTP contents & expected compliance?
- Was there a copy of RTP in the truck & what steps have McColl's taken to ensure their Drivers are aware of the designated routes & parking areas included in the RTP?
- Statement from Driver including why he did not comply with RTP?

Please also include proposed actions / recommendations to ensure compliance in the future.

Prompt attention to this matter would be appreciated

Thanks

A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

General

Confidential

Allan McClelland

From: Allan McClelland
Sent: Tuesday, 28 January 2020 1:37 PM
To: Maree Stuart
Subject: FW: E25/66T delivery vehicle (McColls) parked on George Booth Drive

Hi Maree

I have forwarded this to you hoping you may be the correct person to escalate?
Please advise if you are not & provide a different contact if possible

Thanks

A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

General

From: Allan McClelland
Sent: Tuesday, 28 January 2020 9:50 AM
To: Rob Malcolm <rob.malcolm@orica.com>
Cc: Jesse Pryce <jesse.pryce@orica.com>; Richard Powell <richard.powell@orica.com>; David Horne <david.horne@orica.com>; Natalie Botham <natalie.botham@orica.com>; Karen Hartcher <karen.hartcher@orica.com>; Marissa Hayes <marissa.hayes@orica.com>
Subject: E25/66T delivery vehicle (McColls) parked on George Booth Drive

Hi All

We have had another instance of heavy vehicle parked on George Booth Drive opposite Orica site contrary to the Kurri ANE Road Transport Protocol. The contractor involved was McColls Transport delivering E25 from Deer Park.

The vehicle was parked there from 5:00am to 08:00am on Sunday 26/1/20. This incident requires notification to the Department of Planning which I will be completing today.

This is the 3rd such incident recently involving haulage contractors to / from site.

Rob

Could you please follow this up with McColls Transport & provide an Investigation report into the incident?

Please include the following details in investigation

- What steps have Orica taken to ensure McColls Management are aware of RTP contents & expected compliance?
- Was there a copy of RTP in the truck & what steps have McColls taken to ensure their Drivers are aware of the designated routes & parking areas included in the RTP?
- Statement from Driver including why he did not comply with RTP?

Please also include proposed actions / recommendations to ensure compliance in the future.

Prompt attention to this matter would be appreciated

Thanks
A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

General

Confidential

Allan McClelland

From: Maree Stuart
Sent: Friday, 31 January 2020 2:27 PM
To: Justin Keast
Cc: Allan McClelland, Sesh Sarkar
Subject: FW: MATT PHILLIPS - ORICA KURRI - SCFU1253241
Attachments: 2019_Kum-Kum-Road-Transport-Protocol-Rev-D (5).pdf; Induction slides.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Justin,

Please see response from the Kurri site supervisor below:

Hi Maree

Firstly let me say that there is a renewed focus on this issue now as we have had a number on similar incidents from different haulage contractors very recently & all have had to be reported to the department of planning as a non-compliance to RTP

I have attached the latest revision of our Road transport Protocol from 2019, would like it issued to McCalls. This document contains specific details on approved routes & approved parking areas. I had been under the impression that all our suppliers & haulage contractors had been provided with this document last year after similar incidents but obviously we did not get it to everyone. Seeing as how McCalls only have the 2012 version I think it would be best to have them re-issue current document to all Drivers. Document also contains our current plant opening hours.

While I appreciate that the Driver on this occasion thought he was acting in the best interest of his customer & where he had parked did not create any traffic hazards, under our Licence to Operate conditions the only reasons a heavy vehicle travelling to or from the plant may stop in an undesignated parking area is in the case of an emergency or breakdown.

When the Driver was questioned on the day as to whether he knew he was not allowed to park on George Booth drive he replied that he was aware that he was not supposed to park there. But still he did? The Driver seemed to be annoyed that he was being challenged about his decision as is evident by the last line in his statement! I am not convinced that the Driver appreciates the seriousness of this matter.

I think the memo attached to delivery documentation suggestion by Justin is a suitable way forward but I also feel that a Tool Box Talk with Drivers to re-enforce the importance of this requirement is appropriate & would appreciate a copy of this Tool Box Talk provided to Orica.

I have also attached the 2 relevant slides from our site induction for reference.

Your assistance with this matter is appreciated.

1

I was finally able to contact the control room around 8.00am 26th January

Normally I would park at the truck parking bay on the Hunter Express Way, before John Renshaw, but as I couldn't get an answer by phone, this is way I decided to drive all the way there, to see what the issue was or talk to someone about when they wanted the delivery

I'm extremely disappointed that I have had to explain why I was parked on the side of George Booth Drive.

Numbers called were 02 49393802 and 02 49393801.

The driver has delivered to Kurri previously on a number of occasions (but he's never not been able to get in contact previously) and he has a copy of the RTP. We are well aware of the RTP requirements and have delivered 2-3 x iso tanks and road tankers a week, for a number of years, since Kurri Kurri's opening, without an incident such as this. All drivers were given a copy of the RTP and all new driver completing deliveries to Kurri are given a copy of the RTP (January 2012 version we have). For future loads we will issue a memo to be attached to the Orica paperwork outlining the suitable parking spaces and a reference to RTP and if any copies are required or if they are unsure we can provide additional copies to all drivers. Or alternatively we can re-issue the RTP to all driver regardless if they already have a copy. Please let me know which option you would prefer.

Justin.

Message protected by MailGuard: e-mail anti-virus, anti-spam and content filtering.
<http://www.mailguard.com.au/it>

A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

Regards

Maree Stuart
Sourcing Manager
APA Supply Chain - Sourcing
Level 4, 1 Nicholson Street, Melbourne, Victoria, 3001
Orica | www.orica.com
☎ +61 3 9865 7459 | 📠 +61 419 105 991 ✉ maree.stuart@orica.com


General

From: Justin Keast <jkeast@mccolls.com.au>
Sent: Thursday, 30 January 2020 2:45 PM
To: Maree Stuart <maree.stuart@orica.com>
Subject: [EXTERNAL] FW: MATT PHILLIPS - ORICA KURRI - SCFU1253241

Hi Maree,

Sorry for the delay in responding I'm Sydney at present going from meeting to meeting, but I did speak to the driver and below is his statement which he did give on the day. I have just typed it pretty much word for word in italic below

STATEMENT FROM MATT PHILLIPS

I picked up ISO container around 3.00pm in Melbourne, being told it was for a Sunday 26th delivery.

I rang multiple times between 4.00pm Friday 24th and Sunday the 26th looking for a suitable unload time

Figuring, maybe recent fires had effected the phones, as every call attempted went straight to voicemail. I drove to the gateway, I called over UHF CH30 several times, even called the 1300 number for security, to be told the plant wasn't working, nor would it be before Tuesday. I then parked on the roadside opposite the driveway. I figured I would wait until 8.00am and if I couldn't raise a response, I would return the load to McColls, Prestons and inform McColls of the non delivery



Kurri Kurri

Orica Limited
ABN 99 0041178281151 George Booth Drive Richmond Vale NSW 2327 Australia
Tel +61 2 4939 3789 Fax +61 2 4939 5159

28.01.2020

Department of Planning Industry and Environment
320 Pitt Street Sydney NSW 2001

Re: MP 09_0090 Schedule 4, Condition 3

Dear Sir, Madam

This email is to advise DPIE of an event that occurred on 26th January 2020 where a truck delivering to Orica Australia Pty Ltd.'s (Orica) site at Kurri Kurri parked on George Booth Drive for a period of 3 hours in a location that was not identified as a heavy vehicle parking location in Orica's Road Transport Protocol (RTP) for the site. Orica's RTP was recently amended to include designated parking locations for heavy vehicles making deliveries to or from the site, which were not previously included in the RTP. The amended RTP was approved by DPIE on 30 May 2019 and Orica has provided the amended RTP to its contractors that provide truck haulage services to the site. The relevant haulage contractor was McColl's Transport, the truck driver in question was not an Orica employee. OAPL has engaged our contractors and providers in earnest to ensure they are well versed in the RTP.

We do not regard the incident as significant, as there was no obstruction to traffic, the road is straight, and the vehicle was not in a populated area or near any community assets. Nor were any community members affected in any way. Nonetheless we note that in DPIE's letter to Orica on 9 August 2019, DPIE advised that Orica should advise it of similar incidents to those set out in that letter, and earlier correspondence between Orica and DPIE regarding heavy vehicle parking and haulage route events. As such, Orica is advising DPIE of the recent event on 26th January 2020 where a haulage contractor parked his vehicle on George Booth Drive and not in a parking location designated in the amended RTP. As described in our previous correspondence on reports of improvements identified, we still seek clarity from DPIE on significance and its definition.

Please let us know if DPIE requires any further information regarding this event and feel free to contact Richard Powell 0417809026 if you would like to discuss.

Yours sincerely
David N Horne

A handwritten signature in black ink that reads "David N. Horne".

Allan McClelland

From: David Horne
Sent: Monday, 3 February 2020 10:40 AM
To: Allan McClelland; Natalie Botham
Cc: Richard Powell
Subject: FW: truck incident 30/1/20
Attachments: 2020 01 30 LETTER_001.pdf

Importance: High
Follow Up Flag: Follow up
Flag Status: Flagged

Hi All

please see response from Department of Planning, even though this is not a directive it would be good to be able to have records that we have communicated again the importance of compliance to the RTP to all our contractors and sub-contractors.

Kind Regards
David N Horne
Senior Supervisor
Orica - Kurri ANE Plant
Ph. +61 4939 3789
Mob. +61 427004693

General

From: Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>
Sent: Monday, 3 February 2020 10:33 AM
To: David Horne <david.horne@orica.com>
Cc: Richard Powell <richard.powell@orica.com>; Heidi Watters <Heidi.Watters@planning.nsw.gov.au>
Subject: [EXTERNAL] truck incident 30/1/20

Hi David,

Thanks for the notification of the truck parking on George Booth Drive (attached). The Department has recorded the breach and will take no action at this time. Please ensure a refresher is given to all truck drivers, including third party contractors, reminding them of their obligations in the Road Transport Protocol.

Regards,

Ann Hagerthy
Senior Compliance Officer

(Mon-Thurs)
Planning & Assessment - Compliance | Department of Planning, Industry and Environment
T 02 6575 3407 | M 0428 976 540 | E ann.hagerthy@planning.nsw.gov.au
PO Box 3145 | Singleton NSW 2330

Please direct all email correspondence to compliance@planning.nsw.gov.au

www.dpie.nsw.gov.au



Planning,
Industry &
Environment

The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Confidential

Events

Responsible Entity

Event ID 2020-00054825

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor Allan McClelland - 13799 {Main}

Nominate a Validator David Horne - 5823 {Main}

Source Web UI

Log Book 

Identification

Short Description ANE delivery tanker breakdown on George Booth drive

Event Date (Local Time) 28/01/20 12:00 pm

Reported Date (Local Time) 30/01/20 11:40 am

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 28/01/20 12:00 pm

Reported Date (My Time) 30/01/20 11:40 am

Lag Time 1 Day(s)

Reported by Allan McClelland

Details

Classification Community

Confidentiality Normal

Risk Categories Transport related incident

Severity 0 - Report Only

Reportable to Authority No

Related Event(s)

Comment

Location

Location Type In Transit - Product Distribution

Area On Road / Highway

Carrier Name Rockys Own Transport Co

Specific Area George Booth Drive

Address

Maps Manager



Description

Report (Site language) Rocky's Own truck loaded at ANE Plant. After departing plant at 12 noon, while traveling along George Booth Drive the vehicle has malfunctioned. The Driver was able to get the vehicle off the road into a position where no safety hazard was caused to traffic & could be worked on safely. No public complaints received. Information only.

Was the activity being performed Controlled by Customer \ Public \ 3rd Party

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a Misfire?

Immediate Action Taken

Immediate Action(s) Taken Driver contacted ANE Plant to inform of incident. Vehicle was repaired by mechanic & able to continue on journey. Rocky's operations manager contacted orica at 13.30 to inform the truck had been repaired

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required? ☒

Reason for not Investigating Report for information only. Vehicle broken down. No community complaint or non-conformance with Orica RTP

Action Required? ☒

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 07/02/20 11:30:37 am

Under Investigation ☒

Number of Actions 0

Number of Closed Actions 0

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 0

Number of Closed

Investigations

Statement Count 0

Evidence Count 0

Causes Count 0

Changes Count 0

Created by Allan McClelland - 13799 {Main} on 30/01/20 11:56:38 am

Last modified by Allan McClelland - 13799 {Main} on 07/02/20 11:30:37 am

Subscription Status: (On / Off)

Action Plans

There are no results.

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	ANE delivery tanker breakdown on George Booth...	Real (actual severity)	Community	Traffic	0 -COM Report Only: no discernible impact OR not Orica	1 -COM Minor: confirmed complaint, minor impact

Agency Notifications

There are no results.

Investigations

There are no results.

Statements

There are no results.

Evidence

There are no results.

Causes

There are no results.

Changes

There are no results.

Events

Responsible Entity

Event ID 2019-00052979

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: Supply Chain (MSO)

Nominate a Contributor Dean Thomson - 12487 {Main}

Nominate a Validator David Horne - 5823 {Main}

Source Web UI

Log Book 

Identification

Short Description Acetic acid tanker parked on George Booth drive to take break

Event Date (Local Time) 26/11/19 01:00 am

Reported Date (Local Time) 26/11/19 03:24 pm

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 26/11/19 01:00 am

Reported Date (My Time) 26/11/19 03:24 pm

Lag Time 0 Day(s)

Reported by Dean Thomson

Details

Classification Non Compliance or Breach

Confidentiality Normal

Risk Categories Transport related incident

Severity 0 - Report Only

Reportable to Authority No

Related Event(s) Urea B-Double parked on George Booth Drive - 2019-00045975
Kalar Tanker parked on George Booth Drive - 2018-00040199
Kalar Tanker parked on George Booth Drive - 2018-00038405

Comment **08/01/20 08:57:18 am - Allan McClelland - 13799 {Main}**
...manually changed the workflow FROM Investigation/Action Planning TO
Awaiting Investigation/Action Completion

Location

Location Type In Transit - Product Distribution

Area On Road / Highway

Carrier Name UTH

Specific Area

Address

Maps Manager



Description

Report (Site language) Driver parked on George booth driver to have his allotted break before entering site to unload.

Was the activity being performed Controlled by Customer \ Public \ 3rd Party

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a

Misfire?

Immediate Action Taken

Immediate Action(s) Taken Notified Distribution team, spoke to driver and asked driver to give statement.

Initial Attachments

Initial Attachments

Investigation

Event Owner Allan McClelland - 13799 {Main}

Investigation Required? ☒

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 08/01/20 08:57:46 am

Under Investigation ☒

Number of Actions 0

Number of Closed Actions 0

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 1

Number of Closed
Investigations 1

Statement Count 0

Evidence Count 0

Causes Count 0

Changes Count 0

Created by Dean Thomson - 12487 {Main} on 26/11/19 03:37:47 pm

Last modified by Allan McClelland - 13799 {Main} on 14/08/20 10:40:07 am

Subscription Status: (On / Off)

Action Plans

There are no results.

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: Supply Chain (MSO)	Acetic acid tanker parked on George Booth drive	Real (actual severity)	Non Compliance or Breach of Licence		0 -NC Report Only: no breach, may notify	1 -NC Minor: reportable, Fine <\$100K

Agency Notifications

There are no results.

Investigations

Entity	Investigation Status	Short Description	Initial Due date	Due Date	Date Investigation Completed	Person Responsible
Kurri Kurri: Supply Chain (MSO)	Closed	Non compliance to Road Transport Protocol	31/01/20	31/01/20	08/01/20	Allan McClelland

Statements

There are no results.

Evidence

There are no results.

Causes

There are no results.

Changes

There are no results.

ENABLON EVENT

2019 - 00052979

Acetic Acid tanker parked on George Booth Drive

INVESTIGATION

3.1.2020

Investigation carried out by Orica.

Event Summary: Acetic Acid tanker parked on George Booth Drive, non-compliance with RTP

Location: Kurri ANE Plant

Event Date: 26.11.2019

Event Time: 13.00 hrs

Reported By: Dean Thomson

Reported Date: 26.11.2019

Reported Time: 15:24 hrs

Attachments:

Delivery Docket

Statement of events – Driver, Colin Frazer

Statement of events – Orica Supervisor, Dean Thomson

Email notification of incident to Ixom & initial response

Ixom formal response including investigation & corrective actions

Email communication from Ixom outlining corrective actions taken

Notification of Incident letter to DPI&E

Timeline of Events:

26.11.2019, 13:00 hrs – Site Senior Supervisor notified of Acid tanker parked on GBD by Distribution Team Leader.

26.11.2019, 13:30 hrs - Acid tanker arrived at Kurri ANE Plant.

26.11.2019, 15:25 hrs - Enablon incident raised

27.11.2019, 11:13 hrs – Incident reported to Ixom Management

18.12.2019 – Notification of Incident letter submitted to DPI&E

19.12.2019 – Investigation / Corrective action received from Ixom

19.12.2019 – Email notification of corrective actions completed from Ixom.

Operation: Delivery of Acetic Acid to Kurri ANE Plant by Unanderra Tanker Hire on behalf of Ixom

Background: All heavy vehicle movements in & out of Kurri ANE site are governed by our Road Transport Protocol Document. This document forms part of our Licence to Operate approval issued by the Department of Planning Industry & Environment is reviewed on a regular basis. All heavy vehicles entering / leaving Kurri ANE Plant must carry a copy of the RTP document with them. The document outlines requirements for heavy vehicle movements including designated route's for heavy vehicles moving to & from site. It also contains specific instructions regarding designated truck parking areas on route to the site.

There have been multiple incidents of this type in the past detected by Orica.

As directed by DPI&E the RTP was updated in May of 2019 with specific instructions surrounding designated parking areas to be used. The updated RTP was issued to all contractors that provide truck haulage services to the site.

Root Cause: Failure of Raw Material supplier & haulage contractor to comply with RTP

Contributing Factor:

Driver due for fatigue management break.

Driver could not find copy of RTP in truck when asked if he had one.

Observations;

Driver stopped to have rest break to comply with RMS fatigue management.

Driver was due for Site Induction refresher

Driver has been delivering to site for many years but claimed he was unaware of no parking on George Booth Drive requirements however, this requirement is also contained in the site induction which he had completed many times.

Driver could not produce copy of RTP when asked.

It is a requirement of Dangerous Goods law in NSW to only park in DG approved parking areas.

IXOM is Main supplier of minor raw materials and has responsibility to ensure compliance to the RTP

Recommendations:

Ensure all suppliers & heavy vehicle haulage providers are aware of current revision of RTP & are compliant with all conditions contained in documents.

Ensure all Drivers of heavy vehicles delivering to or from site have a copy of RTP in vehicle & are aware of their responsibilities.

Inductions to be conducted one on one explaining the key points, for truck drivers focus on driver code of conduct and compliance with Road Transport Protocol

Action:

Orica Operators to perform at least one Haulier Audit on all Drivers of heavy vehicles entering site in the next 6 months to ensure compliance with RTP.

IXOM to confirm all drivers have been trained in RTP requirements.

Attachments:



Western Operations Pty Ltd
 AFB 51 BGO SAN 612
 1 Neckerum St, Manly

Sold To : 8380
Coca Explosives*

Responsible User id : Luke Brazier

EMERGENCY RESPONSE: 1800 033 111

Customer Service: Phone: 61 1300 550 036
Facsimile: 61 1300 550 081

Shipping Point:
233-235 Milperra Rd
Bankstown Aerodrome NSW
2200

DELIVERY DOCKET

CUSTOMER COPY

Delivery Docket No : 12592580



Page : 1 of 1.

Order No. 300218250

PO No: 620233134

Entry Date: 26.11.2019

Expiry Date: 25.11.2019
 Expiry Risk: 512323

DELIVER TO: 21528
Orica Mining Services - Kurri ANE P
Echidna Drive
RICHMOND VALE NSW 2323

CofA must accompany delivery - emailed/faxed prior to delivery accepted or with delivery

Driver must use Sydney weigh bridge prior to delivering to Kumi Kurri site

Press Control Room Button to advise Acetic Acid in Waste Bucket

A authorised Heavy Vehicle access only via John Renshaw Drive & then George Booth Drive. DO NOT GO VIA KURRI KURRI TOWN, DO NOT GO VIA SEAHAMPTON. RTP document to be carried with this & all deliveries

Select ANE Plant button at main boom gate, follow signage to ANE Plant. Contact Kumi Control Room on CH30 or Ph: 02 4939 3802

Item No.	Material Number	Product Name	No of Packs Total Batch Quantity	Quantity	UoM	Customer Material Desc.
10	ACEACI75-8B/J	ACETIC ACID 75% Food Grade (bulk) CLASS B C.I. UN 2700 PG II Proper Shipping Name: ACETIC ACID SOLUTION D.OVERALLS, CHEMICAL GOGGLES, FACE SHIELD, GLOVES (Long), APRON, RUBBER BOOTS. Batch No.: 52623	10 TO 1 CofA(s) Printed	10,000	Tonnes	30001481
Important Conditions of Sale apply unless otherwise agreed in writing. BULK - Authority to Discharge checked to be completed by both driver and 31447 customer. ☒ Safe fill level. ☒ Tank level prior to pumping 12,587 kg ☒ Max safe delivery quantity 18,910 kg ☒ Driver's Signature ☒ Customer's Signature ☒ If any boxes cannot be closed please stop delivery and contact your supervisor ☒ All couplings are secured correctly. ☒ I am wearing the correct PPE. ☒ This is a standard or pre-approved delivery point.						
PACKAGED Fallet & Returnable Pack Movements Chop Pallet Other			Goods received in good order & condition Authorized Signature Carrier: 10086 Carrier: 10086 Receiver: 10086			
Print Name			Print Name			
Date			Date			

COLIN FRAZER 26.11.19

PARKED ON GEORGE BOOTH DRIVE TO COMPLY WITH
DESIGNATED REST BREAK REQUIRED BY MHS MANAGEMENT
REGULATIONS.

[Signature]

To whom it may concern,

I was notified of a Acetic Acid truck parked on George booth drive.

When the driver arrived at site and made his way to the control room I asked him to fill out a statement to why he was parked on George Booth drive.

He replied by asking am I not allowed to park there and how long have we not been allowed to park there.

He also mentioned this information was in the transport documents.

On his exit of the site I asked the driver if he had the Road Transport document with him.

He looked through the cab of the truck and could not find a copy of the Road Transport Protocol.

Dean Thomson

[Signature]

26/11/19

+



Herman D'Souza <herman.dsouza@ixom.com>

To: Allan McClelland

Cc: Richard Powell; Sesh Sarkar

Follow up. Start by Thursday, 28 November 2019. Due by Thursday, 28 November 2019.
You forwarded this message on 29/11/2019 9:23 AM.

Hi Allan,

Sesh spoke to me this morning about this incident, I am disappointed and will report it in our SH&E system
The drivers need to carry a copy of the RTP in their cabin and need to be aware of its contents

I will send you a formal response once we have investigated
Yet again apologise for this non-conformance

Regards
Herman

Herman D'Souza
Relationship Manager Mining Services



IXOM (formerly Orica Chemicals)

16-20 Beauchamp Road Matraville, NSW 2036

P: +61 2 9352 2236 | M: +61 412 940 147 | F: +61 2 9352 2116

herman.dsouza@ixom.com www.ixom.com

From: Allan McClelland <allan.mcclelland@orica.com>
Sent: Wednesday, 27 November 2019 11:13 AM
To: Herman D'Souza <herman.dsouza@ixom.com>
Cc: Richard Powell <richard.powell@orica.com>
Subject: FW: Road Transport Protocol Non Conformance

Hi Herman

We have had another incident involving delivery vehicle parked on George Booth Drive. Incident summary below.

As previously discussed with Dave Horne these type of incidents are possibly reportable to Department of Planning by Orica as a breach of our Road Transport Protocol!

It is extremely disappointing to find ourselves in this position again after previous incidents & multiple attempts to resolve issues.

I have a very short statement from the Driver, who seemed to be very dismissive of the requirement of not parking on GBD claiming he had to take fatigue break to comply with RMS requirements.

As you know we have addressed this issue in the RTP by showing designated routes & rest area's suitable for DG. The Driver may have known this had he bothered to ensure he had a copy & read it. He may have also known if he had taken notice in any one of the several Plant Inductions he has completed in the past.

Please address this issue with carrier & reply outlining preventative actions that will be implemented by Ixom to ensure we don't have another repeat of this type of incident.

Thanks

A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952



Kurri Kurri

Orica Limited
ABN 99 004117828

1151 George Booth Drive Richmond Vale NSW 2327 Australia
Tel +61 2 4939 3789 Fax +61 2 4939 5159

18th December 2019

Department of Planning Industry and Environment
320 Pitt Street Sydney NSW 2001

Re: MP 09_0090 Schedule 4, Condition 3,

Dear Sir, Madam

This email is to advise DPIE of an event that occurred on 26 November 2019 where a truck delivering acetic acid to Orica Australia Pty Ltd.'s (Orica) site at Kurri Kurri parked on George Booth Drive for a period of approximately less than an hour in a location that was not identified as a heavy vehicle parking location in Orica's Road Transport Protocol (RTP) for the site. Orica's RTP was recently amended to include designated parking locations for heavy vehicles making deliveries to or from the site, which were not previously included in the RTP. The amended RTP was approved by DPIE on 30 May 2019 and Orica has provided the amended RTP to its contractors that provide truck haulage services to the site. The relevant haulage contractor was Unanderra Tanker Hire and the truck driver in question was not an Orica employee. OAPL has engaged our contractors and providers in earnest to ensure they are well versed in the RTP.

We do not regard the incident as significant, as there was no obstruction to traffic, the road is straight, and the vehicle was not in a populated area or near any community assets. Nor were any community members affected in any way. Nonetheless we note that in DPIE's letter to Orica on 9 August 2019, DPIE advised that Orica should advise it of similar incidents to those set out in that letter, and earlier correspondence between Orica and DPIE regarding heavy vehicle parking and haulage route events. As such, Orica is advising DPIE of the recent event on 26 November 2019 where a haulage contractor parked his vehicle on George Booth Drive and not in a parking location designated in the amended RTP. As described in our previous correspondence on reports of improvements identified, we still seek clarity from DPIE on significance and its definition.

Please let us know if DPIE requires any further information regarding this event and feel free to contact **Richard Powell 0417809026** if you would like to discuss.

Yours sincerely
David N Horne

A handwritten signature in black ink that reads "David N. Horne".

19 December 2019

Subject: Kurri Road Transport Protocol Non-Conformance
Event: Acetic Acid tanker parked on George Booth Drive
Date: 26/11/19
Reported to Ixom by: Alan McClelland (Orica)

The IXOM logo consists of the word "IXOM" in a bold, sans-serif font, positioned to the left of a stylized blue geometric graphic. The graphic is composed of several blue triangles and quadrilaterals arranged in a circular, pinwheel-like pattern.

INCIDENT

Unanderra Tanker Hire truck witnessed by Orica Employee parked in area beside George Booth Drive across from Orica front entrance. Tanker carrying Acetic Acid, DG class 8. Driver has been delivering to site for many years. When driver entered Orica Plant it was established that he was due for Plant re-induction. He was asked why he had been parked on George Booth Drive & replied that he had stopped for his fatigue management break to comply with RMS regulations.

When asked if he had a copy of the Road Transport Protocol in his truck, he replied yes but was later unable to produce a copy. He was asked if he was aware that delivery vehicles are not allowed to park on George Booth Drive as per RTP & he said he was not. Driver re-inducted to site with emphasis on designated route & parking areas

INVESTIGATION

Unanderra Tanker Hire had an older version of the Road Transport Protocol which did not have details of the designated rest areas. There is no signage in area prohibiting parking, so the driver parked for a short break (see photo).

On discussing this issue with the driver, he acknowledged he was aware of the RTP, but claimed it was not practical to expect a driver to read a 60-page document.

ixom
Orica Kurri RTP Non-Conformance
Level 8, 1 Nicholson Street
East Melbourne
Victoria Australia 3002
Tel +61 3 9906 3000
www.ixom.com



CORRECTIVE ACTIONS

- Updated version (May 19) of RTP sent to Unanderra Tanker Hire, highlighting travel routes to site and designated rest areas. Unanderra Tanker Hire have formally acknowledged that they have received a copy of the Richmond Vale ANE Production Facility Heavy Vehicle Road Transport Protocol – Operations May 2019 revision D document.
- As this is a new version of the ORTP, and there are some significant changes, UTH have committed to review the process and will re-train their drivers to ensure that they are aware of these procedural changes.
- Drivers to carry a copy of the Road Transport Protocol in their cabins.
- UTH to send a list of drivers currently inducted to Richmond Vale ANE Production Facility and seek confirmation from site that these are the only workers that are currently inducted and that their inductions are still valid.

No signage in area prohibiting parking



Herman D'Souza

Herman D'Souza
Relationship Manager Mining Services



Allan McClelland
To: Herman D'Souza
Cc: Marissa Hayes

Reply Reply All Forward
Thu 19/12/

Hi Herman

All Drivers inductions are current although Mark O'Neill is due 21/12/19 so will need to be done on his next visit.
Screenshots below from induction.

Road Transport Protocol (excerpt)

- Designated Truck Route to Kurri ANE Plant is via John Renshaw and George Booth Drives Only. Emergency Services diversions excepted.
- Access to Kurri ANE plant is through **Rural Residential Area** please minimise all use of engine braking in this area!
- Approved parking areas only to be used.

Road Transport Protocol (excerpt)

George Booth drive has no overtaking lanes

- No overtaking other traffic unless directed by emergency Services:
- Police, RMS, SES, Fire etc.
- Heavy vehicles are to park only in designated parking areas enroute. (**Not on George Booth Drive**)



A.S. McClelland
Senior Site Supervisor
Orica, Kurri ANE Plant
Ph 0249393845,
Mobile 0412023952

General

From: Herman D'Souza <herman.dsouza@txom.com>
Sent: Thursday, 19 December 2019 9:15 AM
To: Allan McClelland <allan.mcclelland@orica.com>
Cc: Marissa Hayes <marissa.hayes@orica.com>
Subject: [EXTERNAL] Revised RTP May19

Hi Allan

UTH believe that drivers below workers are inducted to Kurri site:

- Colin Frazer
- Matt Kemp
- Darren Morgan
- Mark O'Neill
- Warren Coulton

Can you please confirm these are the only drivers for Acetic Acid that are currently inducted and that their inductions are still valid?
Does the induction cover the procedural changes contained in the revised RTP document?

Regards
Herman

Events

Responsible Entity

Event ID 2019-00042782

Approval Level Closed

Type SHES Incident

Entity Kurri Kurri: ANE Plant (MSO)

Nominate a Contributor David Horne - 5823 {Main}

Nominate a Validator Matt Young - 90672 {Main}

Source Web UI

Log Book 

Identification

Short Description Letter received suggesting Non-Compliance to Project Approval condition

Event Date (Local Time) 06/02/19 01:30 pm

Reported Date (Local Time) 06/02/19 01:30 pm

TimeZone (UTC+10:00) Canberra, Melbourne, Sydney

Event Date (My Time) 06/02/19 01:30 pm

Reported Date (My Time) 06/02/19 01:30 pm

Lag Time 0 Day(s)

Reported by David Horne

Details

Classification Non Compliance or Breach

Confidentiality Normal

Risk Categories Regulator issued notice

Severity 1 - Minor

Reportable to Authority Yes

Related Event(s)

Comment

Location

Location Type Orica Site

Orica Site Kurri Kurri: ANE Plant (MSO)

Area Administration / Office Areas

Specific Area

Maps Manager



Description

Report (Site language) Show Cause Letter issued to Orica regarding non-compliance to :
MP 09_0090
Schedule4
Condition 3
" The proponent shall notify the director-general and any other relevant agencies of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment associated with the project as soon as practicable after the proponent becomes aware of the incident. Within 7 days of the date of the incident the proponent shall provide the director-general and any relevant agencies with a detailed report on the incident"

Was the activity being performed Controlled by Customer \ Public \ 3rd Party

Did the event involve Fire or Explosion? No

Did the event involve Loss from Primary Containment? No

Was event associated with a manufacturing process? No

Did the event involve a Misfire?

Immediate Action Taken

Immediate Action(s) Taken Reported to senior management

Initial Attachments

Initial Attachments

Investigation

Event Owner David Horne - 5823 {Main}

Investigation Required? ✗

Reason for not Investigating Legal advice sought and appropriate response letter drafted reviewed and submitted to Department of Planning and Environment

Action Required? ✗

High Learning Value Event No

Financial Losses

Estimated 0 AUD

Real 0 AUD

Days lost

Estimated Restricted Days 0

Estimated Lost Days 0

Real Restricted Days 0

Real Lost Days 0

Approval Status

Approval Date 29/03/19 06:27:41 am

Under Investigation ✗

Number of Actions 1

Number of Closed Actions 1

Related Tables

Notification Count 0

Notices of Violation Count 0

Number of Investigations 0

Number of Closed Investigations 0

Statement Count 0

Evidence Count 1

Causes Count 0

Changes Count 0

Created by David Horne - 5823 {Main} on 08/02/19 06:24:49 am

Last modified by David Horne - 5823 {Main} on 29/03/19 06:27:41 am

Subscription Status: (On / Off)

Action Plans

Action Plan ID	Workflow Status Title	Entity	Sources	Short Description	Type	Priority	Person Responsible	Deadline
2019-AP00126580	Closed	Kurri Kurri: ANE Plant (MSO)	1 source ▼	Respond to Show Cause Letter	Corrective	High	David Horne	-

Impacts

Entity	Short Description	Type	Impact Classification	Impact Sub Classification	Actual Severity	Potential Severity
Kurri Kurri: ANE Plant (MSO)	Non-Reporting of Incidents as per requirement	Real (actual severity)	Non Compliance or Breach of Licence		1 -NC Minor: reportable, Fine <\$100K	2 -NC Significant: Formal action, Fine <\$1M

Agency Notifications

There are no results.

Investigations

There are no results.

Statements

There are no results.

Evidence

Entry	Evidence	Date	
Kurri Kurri: ANE Plant (MSO)	Show Cause Letter	08/02/19	

Causes

There are no results.

Changes

There are no results.



**ANNEXURE D: RICHMOND VALE ANE PRODUCTION
FACILITY HEAVY VEHICLE ROAD TRANSPORT PROTOCOL**

(67 SHEETS)

RICHMOND VALE ANE PRODUCTION FACILITY

HEAVY VEHICLE ROAD TRANSPORT PROTOCOL - OPERATIONS

JUNE 2020 REVISION E



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Revision History

Revision	Revision Date	Details	Reviewed By:	
			Name	Position
A	April 2015	Document review Road transport route changes	David N Horne	Manufacturing Superintendent
			Denise Blackadder	Capability Leader
			Chris Jones	Toll Mining Services (Primary Contractor)
B	September 2017	Document review	David N Horne Denise Blackadder Donna Garth	Senior Manufacturing Supervisor Sustainability and Training Officer Manager DG & Bulk Services South – Mining Toll Global Logistics
C	November 2018	Correction of Errors in Appendix 8,9.	David N Horne	Senior Supervisor Plant
D	March 2019	Incorporation of heavy vehicle parking arrangements and Clarification of process for new routes and material being transported	David N Horne	Senior Supervisor Plant
D	May 2019	Update of document in view of comments by Roads and Maritime Services	David N Horne	Senior Supervisor Plant
E	June 2020	Update of Section 3.1.13 to address: - Independent Environmental Audit recommendation - Update Agency name	David N Horne	Senior Supervisor Plant

1 INTRODUCTION

1.1 CONTEXT

Orica Australia Pty Limited (Orica) operates an Ammonium Nitrate Emulsion (ANE) Production Facility at its Mining Services Technology Centre at Richmond Vale, NSW.

The ANE Production Facility was granted Project Approval 09_0090 (Project Approval) by the Department of Planning on 26 July 2010. Schedule 3 Condition 10 of the Project Approval requires Orica to implement a Road Transport Protocol for heavy vehicles which has been prepared in consultation with RMS and to the satisfaction of the Secretary.

This Operational Road Transport Protocol (ORTP) has been prepared to address the heavy vehicle traffic management requirements associated with the operation of the ANE Production Facility, in accordance with Schedule 3 Condition 10 of the Project Approval.

Raw materials to produce ANE include Ammonium Nitrate Solution (ANS), fuel blend ingredients such as palm olein and diesel oil, thiourea, urea, acetic acid, caustic soda, calcium nitrate, solid ammonium nitrate, and water. All raw materials are delivered to the ANE Production Facility via road transportation.

The main raw material involved in ANE production, is ANS, which is typically sourced from Orica's facility at Kooragang Island. ANE is transported from the ANE Production Facility typically to mining operations in and around the Hunter Valley.

The primary transport risks identified by the Traffic Hazard Analysis (THA) prepared as part of the Environmental Assessment, is the transport of ANS to, and ANE from the ANE Production Facility. The controls and mitigation measures to minimise these transport risks are detailed in Section 1.3.

1.2 SCHEDULE 3 – CONDITIONS 10

This ORTP has been prepared in accordance with Schedule 3 Condition 10 of the Project Approval (09_0090). Requirements for Schedule 3 Condition 10, together with where each has been addressed in this document are presented in Table 1.1.

Table 1.1 Project Approval Conditions for the Road Transport Protocol

Project Approval Condition	Condition Detail	Section in this Document
SCHEDULE 3 <i>Condition 10</i>	Prior to the commencement of construction of the ANE Facility, the Applicant shall prepare and implement a Road Transport Protocol for heavy vehicles, in consultation with the RTA, to the satisfaction of the Director-General. The Protocol shall detail the management of heavy vehicles during both construction and operation of the ANE Facility, and where relevant:	Note that a construction RTP was prepared and approved – this document covers the operational aspects of the ANE facility.
<i>Condition 10a</i>	Define the routes to be used for heavy vehicles; the maximum number of road movements and the haulage hours;	Section 2.0

Project Approval Condition	Condition Detail	Section in this Document
Condition 10b	Include a Traffic Management Plan, which incorporates the requirements of the site's existing Traffic Management Protocol and addresses: Procedures to ensure that drivers adhere to the designated haulage route as required under this protocol;	Section 2.1
	Measures to achieve a low-frequency, regular trucking schedule during normal business hours rather than a high-frequency, campaign trucking schedule;	Section 2.1
	Contingency plans where, for example the designated transport route is disrupted. This shall also address procedures for notifying relevant agencies and affected communities of the required implementation of any such contingency plans;	Section 2.4
	Details of procedures for receiving and addressing complaints from the community concerning traffic issues associated with haulage from the site; and	Section 2.5
	Measures to ensure that the provisions of the Traffic Management Plan are implemented, e.g. education of drivers and any contractual agreements with operators of heavy vehicles which service the site;	Section 3.0
Condition 10c	Include a Driver Code of Conduct that addresses: Driver licensing and training requirements in relation to the transport of dangerous goods;	Section 3.0
	Travelling speeds;	Section 3.0
	Staggering of truck departures to ensure a regular trucking schedule throughout the day;	Section 3.0
	Instructions to drivers not to overtake each other on the haulage route, as far as practicable, and to maintain appropriate distances between vehicles;	Section 3.0
	Instructions to drivers to restrict the use of exhaust brakes as per the commitments outlined in the Submissions Report;	Section 3.0
	Instructions to drivers to adhere to the designated haulage route;	Section 3.0
	Instructions to drivers to be especially safety conscious and to ensure that traffic regulations are obeyed strictly;	Section 3.0
	Driver training in the Code to ensure that all drivers are made aware and to adhere to the code; and	Section 3.1
	Procedures for ensuring compliance with and enforcement of the Code.	Section 3.2

1.3 TECHNICAL NOTE – ANE AND ANS TRANSPORT HAZARD ANALYSIS INPUT TO ENVIRONMENTAL ASSESSMENT

The 'Technical Note ANE and ANS Transport Hazard Analysis Input to Environmental Assessment' (The Technical Note) (Sherpa, 2009) (see Appendix 12), was prepared as part of the Environmental Assessment Process. The Technical Note considered the transport risks of transporting ANS and ANE associated with the project. The document covered potential transport incident scenarios involving ANE and ANS and identified the safeguards in place. Section 4 of the Technical Note outlines the controls and mitigation measures to minimise the transport risks associated with the product, the driver, haulage truck and those required under the specific Security Sensitive Ammonium Nitrate (SSAN) legislation.

These controls and mitigation measures apply to this ORTP in both the traffic management plan and the Drivers Code of Conduct (Section 3.0) and are summarised below. It is noted that Orica's general transport

procedures, controls and management measures for Dangerous Goods transport (see Section 3.0) are in addition to those detailed in the Technical Note.

1.3.1 PRODUCT CONTAMINATION CONTROLS

The following are specific to transporting Dangerous Goods (i.e. ANS and ANE) and do not apply to the receipt of general raw materials or other transport. The implementation of the following is to prevent risks associated with the contamination of ANS and ANE with other products:

- quality control processes at the supply facility (e.g. Kooragang Island) and the ANE Production Facility to ensure the product is suitable for transport;
- dedicated ANS and ANE tankers to ensure non-compatible materials are not introduced during transport;
- different configurations, locations and sizing of filling nozzles for ANS and ANE and loading facilities to prevent incorrect loading / unloading; and
- separate, dedicated tanks for the small loads of gasser and companion solution transported with ANE.

1.3.2 TRUCK CONTROLS

The following are implemented for heavy vehicles transporting Dangerous Goods (i.e. ANS and ANE) and are designed to minimise the escalation potential following an event or vehicle fire:

- tanks are constructed in accordance with the requirements of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code);
- licensing of all vehicles by the relevant regulatory authority. Contractors are to audit compliance with licensing requirements and report to Orica; and
- maintenance and pre-start checks undertaken in accordance with manufacturer requirements and the National Heavy Vehicle Accreditation Scheme requirements.

1.3.3 DRIVER TRAINING, EDUCATION, AND LICENSING

The following controls and mitigation measures apply to all heavy vehicle drivers:

- all drivers must hold a current drivers licence for the heavy vehicle to be operated.

In addition to the above, all heavy vehicle drivers transporting Dangerous Goods (e.g. ANS and / or ANE) must:

- hold a licence/permit to transport the Dangerous Goods in the State(s) and /or Territory in which transport will occur. The licencing/permit aspect is managed by RMS /SafeWork NSW;
- complete specific training which includes information on:
 - Orica's Safety Management Systems;
 - the products being transported; and
 - the controls in place to ensure the safe transport of the product.

1.3.4 ROUTE RISK ANALYSIS

A route risk analysis is to be undertaken by the transport contractor in accordance with AS/NZS 4360:2004 Risk Management Standard and the Australian Code for the Transport of Dangerous Goods by Road and Rail.

The outcome of the route risk analysis is incorporated into the contractor's driver training for the route being travelled.

The process for undertaking a "Route Risk Analysis" can be found in Appendix B of The Technical Note (Appendix 12) and is only applicable to the transport of ANS and ANE.

1.3.5 EMERGENCY PLANS

The following applies to all heavy vehicle drivers:

- undergo emergency response training for events such as vehicle accidents and fires as part of the site induction;
- each heavy vehicle is to carry an Emergency Procedure Guide which summarises the actions to be undertaken in the event of a vehicle fire and also a guide for each type of product being carried.

1.3.6 REVIEW OF PLAN

This ORTP may be reviewed and amended from time to time to reflect changes in road transport requirements and practices.

2 TRAFFIC MANAGEMENT PLAN

The ANE Production Facility began operations in 2012. The ANE Production Facility can produce up to approximately 250,000 tonnes of ANE per annum.

2.1 TRUCK MOVEMENTS AND HAULAGE HOURS

The ANE Production Facility operates 24 hours per day Sunday to Friday and traffic movements are spread throughout this window.

The average total daily heavy vehicle movements (i.e. to and from the site) at maximum production are expected to be approximately 100 (i.e. 50 in/50 out).

Of the 100 heavy vehicle movements, approximately 80 are associated with the delivery of ANS and distribution of ANE (i.e. 40 vehicle movements for each ANS and ANE). The remaining 20 vehicle movements are associated with the delivery of raw materials required to produce ANE (i.e. 10 inbound and 10 outbound).

Recently A-Double tanker configurations have been introduced to ANE transport fleet and are now being utilised by our contractors. Due to load distribution across additional axles this has enabled the payload to be increased, resulting in reduced vehicle movements.

The majority of the product being delivered to and from the site is undertaken by transport logistics contractors, which includes the delivery of ANS (the main raw ingredient used to produce ANE) and the delivery of ANE to Orica - depot sites. The delivery of ANS and ANE will occur as required during the operating times. As such, these vehicle movements are staggered to ensure the safe and efficient movement along the transport route and through the ANE Production Facility. The vehicles delivering ANS and ANE to and from the ANE Production Facility will follow the heavy vehicle routes as detailed in Section 2.2.

Other companies also deliver raw materials including general and Dangerous Goods freight to the ANE Production Facility. These deliveries are carried out at a far lower frequency during operating hours. These raw material delivery vehicles will also follow the heavy vehicle routes as detailed in Section 2.2. NB the controls and mitigation measures as detailed in Sections 1.3 and 3.0, where applicable, also apply to vehicles delivering raw material.

Based on the existing traffic volumes set out in the EA, the additional heavy vehicle movements represent an increase of less than 8 per cent for heavy vehicle volumes on George Booth Drive. It is considered that any potential traffic impacts associated with the operation of the ANE Production Facility are appropriately mitigated as outlined in this Road Transport Protocol.

Operational traffic management measures are provided in Section 2.1 and Section 3.0.

2.2 HEAVY VEHICLE TRANSPORT ROUTES

2.2.1 ROUTE RESTRICTIONS

Heavy vehicle transport route restrictions associated with the ANE Production Facility fall into the following two categories, with further detail provided in Table 2.1 and as shown on the Restricted Access Vehicle (RAV) map (see Appendix 1).

- Kurri Kurri Locality Restrictions derived from the Environmental Assessment titled *Proposed Ammonium Nitrate Emulsion (ANE) Production Facility, and Continued Operation of Orica Mining Services Technology Centre, Richmond Vale, NSW* (Umwelt, 2009) and restricted by this ORTP, and
- Restricted Access Vehicle Routes derived from external regulation.

Table 2.1 Heavy Vehicle Transport Routes

Route Restriction	Description/ details
Kurri Kurri Locality Restrictions	These restrictions are largely focused on mitigating potential traffic and hazard impacts from the transport of ANS / ANE on local/residential roads around Kurri Kurri. All heavy vehicles movements to and from the ANE Production Facility on Echidna Drive are restricted to George Booth Drive and John Renshaw Drive. (N.B. George Booth drive shall not be accessed from Seahampton or Cardiff Exit from M1 Pacific Motorway)
Restricted Access Vehicle Routes beyond the Kurri Kurri Locality	RMS regulates Restricted Access Vehicle routes in accordance with the National Heavy Vehicle Regulator (NHVR). An interactive RAV map provides an active depiction of the location of road network restrictions and approved routes for use by heavy vehicles (e.g. B-Doubles). Restrictions and approved routes are shown by heavy vehicle types. Project related deliveries, both in and out, must abide by current RAV routes. Approved RAV routes which are typically used by the B Doubles and associated with the ANE Production facility truck movements include: • George Booth Drive (B68); • John Renshaw Drive; • New England Highway (A43 – National Highway); • Hunter Expressway (M15); • the M1 Pacific Motorway (M1); and • Pacific Highway (A1 – National Highway).

It is noted that as outlined in Section 2.4 temporary deviations from these project specific and general route restrictions are permissible.

2.2.2 WHAT IS A RESTRICTED ACCESS VEHICLE

The national law and regulations prescribe the mass and dimension requirements for heavy vehicles. The two key types of heavy vehicle are:

- General Access Vehicle: Vehicles that comply with mass and dimension limits and do not require a notice or permit to operate on the road network. These vehicles have general access to the road network unless the road is sign-posted otherwise.
- Restricted Access Vehicle: National law provides for three classes of RAVs, namely Class 1, 2 and 3 and are described below:
 - Class 1: Vehicles that, together with their load, do not comply with prescribed mass or dimension limits. For example,
 - > special purpose vehicles such as mobile crane;

- > vehicles or combinations carrying, or designed for the purpose of carrying, a large indivisible item (e.g. prime mover and low loader combination).
- Class 2: Vehicles that comply with their prescribed mass and dimension limits, including:
 - > B-doubles – consists of a prime mover towing two semitrailers, with the first semitrailer being attached directly to the prime mover by a fifth wheel coupling and the second semitrailer being mounted on the rear of the first semitrailer by a fifth wheel coupling; and
 - > Performance-Based Standards (PBS) vehicles (other than a specified PBS vehicle) – which can operate on road networks that have been classified as suitable for their level of performance.
- Class 3: Vehicles which, together with their load, do not comply with prescribed mass or dimension limits and are not Class 1 vehicles. Examples include:
 - > rigid truck and dog trailer combinations weighing more than 42.5t; and
 - > B-doubles or road trains transporting loads wider than 2.5m.
 - > Notices and permits specify a range of conditions relevant to the use of the vehicle or combination. This can include, but is not limited to:
 1. mass and dimensions;
 2. routes and areas; and
 3. travel, roads and vehicle conditions.

2.2.3 HEAVY VEHICLE TRANSPORT ROUTES

With consideration of the above heavy vehicle route restrictions, Orica has identified both normal and alternative heavy vehicle transport routes as summarised in Table 2.2. These routes are typically associated with the movement of either ANS or ANE. However, the use of these routes to transport ANS/ANE and/or other raw materials as well as being used by other sized heavy vehicles and anything else is permitted as long as the applicable controls and mitigation measures as detailed in this document are implemented.

Given the complexity of the supply and distribution logistics associated with the various raw material suppliers and freight transport companies (i.e. multiple suppliers, material types, truck sizes, subsequent truck destinations and route restrictions), it is not possible or reasonable to identify all possible transport route scenarios and other routes may be used. However, the transport routes to / from the ANE Production Facility which connect to the major arterial roads of the Hunter Expressway (M15), Pacific Highway (M1) and New England Highway (A43) are shown on Figure 2.1 (i.e. Kurri Kurri Locality Restrictions). These transport routes apply to all heavy vehicles unless a prior or subsequent delivery to another locality within Kurri Kurri is undertaken and the applicable controls and management measures (e.g. driver licencing) as detailed in Section 1.3 will be applied to these heavy vehicle movements. Beyond the Kurri Kurri Locality, drivers are not route restricted by the project or this ORTP but must abide with RMS requirements and all applicable legislation.

Figure 3.1 Kurri Kurri Locality Routes (i.e. approved routes)

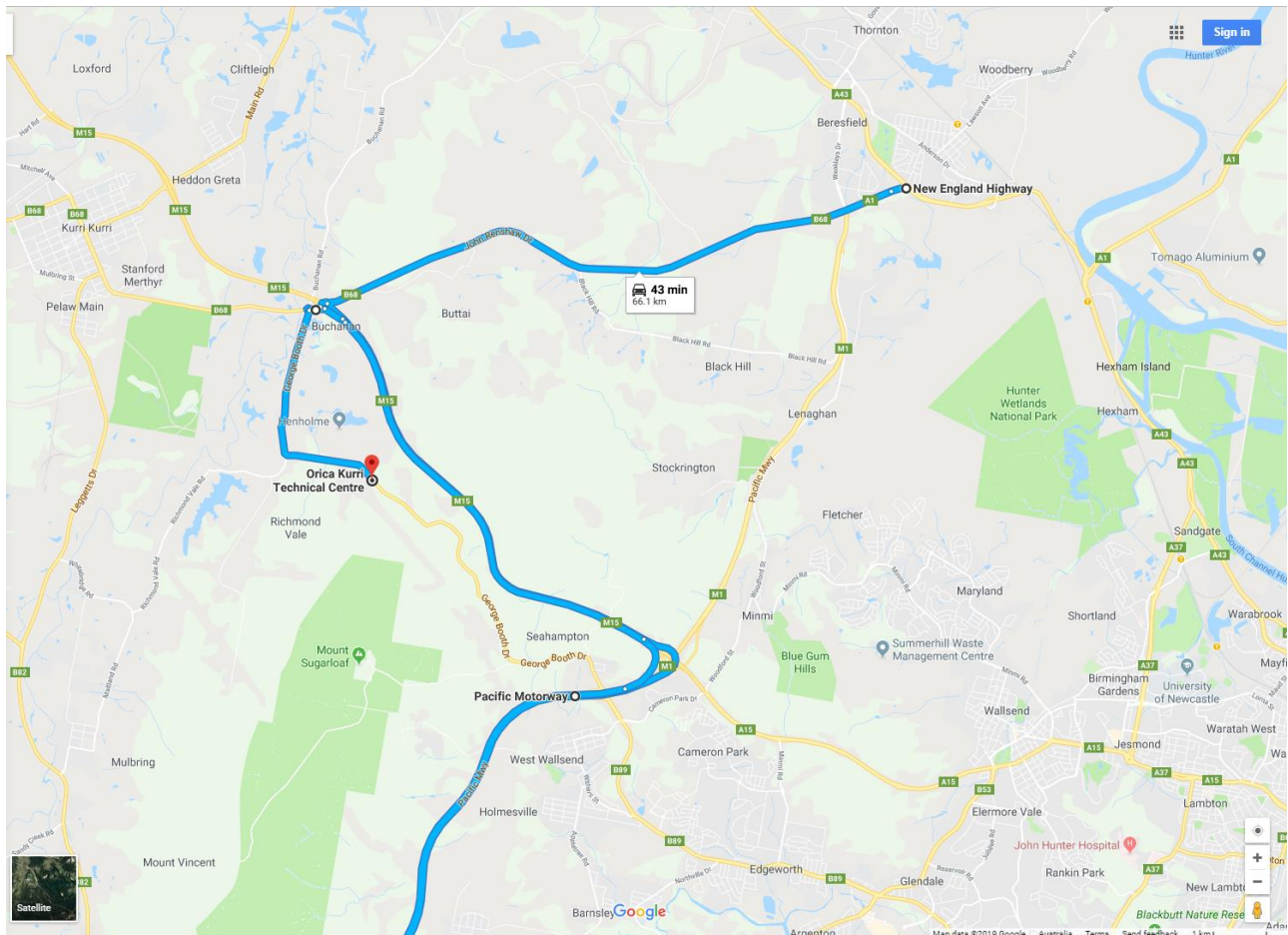


Table 2.2 Heavy Vehicle Transport Routes

Transport Route		Main Product(s) Transported on Route	Normal or Alternative Route	Detailed Route Map and Directions
Departure Location	Destination Location			
Orica Kooragang Island	ANE Production Facility Richmond Vale	ANS	Normal	See Appendix 2
ANE Production Facility Richmond Vale	Liddell ANE Plant	ANS	Normal	See Appendix 3
ANE Production Facility Richmond Vale	Depot Sites – via M15	ANE	Normal	See Appendix 4
ANE Production Facility Richmond Vale	Depot Sites – via A43	ANE	Alternative 1	See Appendix 5 (This route has restricted usage or private roads)
ANE Production Facility Richmond Vale	Depot Sites – via Kurri Kurri	ANE	Alternative 2	See Appendix 6 (additional conditions and obligations associated with using this route see Appendix 6 for details)
Toll Depot (Tomago)	ANE Production Facility Richmond Vale	All	Normal	See Appendix 7
Melbourne	ANE Production Facility Richmond Vale	All	Normal	See Appendix 8
Sydney	ANE Production Facility Richmond Vale	All	Normal	See Appendix 9
Brisbane	ANE Production Facility Richmond Vale – Via A1	All	Normal	See Appendix 10
Brisbane	ANE Production Facility Richmond Vale – Via A43	All	Normal	See Appendix 11

Note: the above routes are interchangeable for any and all transport products and size of heavy vehicle as long as the applicable controls and mitigation measures as detailed in **Section 1.3** are implemented.

2.3 OPERATIONAL TRAFFIC MANAGEMENT MEASURES

The following management measures have been implemented in order to minimise the potential for traffic impact associated with the operation of the ANE production facility.

Mitigation Measure	Responsibility	Timing
The Safety, Health, Environment and Security (SHES) induction provided to the ANE staff includes operational traffic components including those outlined in this ORTP.	Site Safety/Environment Representative	As required during operation
Reinforcement of the community impacts associated with traffic movements during site meetings and inductions such as the restrictions on the use of exhaust brakes along George Booth Drive between John Renshaw Drive and the site.	Site Safety/Environment Representative, Manufacturing Superintendent and Haulage Contractor	As required during operation
The heavy vehicle movements associated with ANS and ANE deliveries to and from the site are staggered to minimise noise and traffic impacts on nearby residents. This is achieved via implementation of measures such as staggered shift start times and delivery schedules for all deliveries to and from the site.	Senior Manufacturing Supervisor and Haulage Contractor	During Operation
Monitoring of truck movements are undertaken to ensure drivers adhere to the designated haulage route as required by the Driver Code of Conduct and transport route risk assessment. Monitoring will include the use of a GPS system.	Senior Manufacturing Supervisor and Haulage Contractor	During Operation
Any oversize loads are transported according to the requirements of the Roads & Maritime Services (RMS) and police, and have the appropriate approvals and escorts as required.	Senior Manufacturing Supervisor and Haulage Contractor	As required during operation
Event investigation in response to any concerns raised by the community, regarding traffic associated with the operation of the ANE Production Facility in accordance with Section 2.5 of this document and appropriate action taken if required.	Senior Manufacturing Supervisor and Haulage Contractor	During Operation
All heavy vehicle drivers associated with deliveries to and from the site will be instructed to restrict the use of exhaust brakes in both directions on George Booth Drive between John Renshaw Drive and Echidna Drive; as required by the Driver Code of Conduct.	Senior Manufacturing Supervisor and Haulage Contractor	During Operation
Monitoring of haulage contractors are undertaken to ensure drivers are complying with the requirements of the Driver Code of Conduct.	Senior Manufacturing Supervisor and Haulage Contractor	During Operation
Carry out a Transport Route Risk Assessment for an alternate route identified for the transport of the ANS and ANE and provision of the assessment to the Senior Manufacturing Supervisor.	Haulage Contractor	During Operation

2.4 CONTINGENCY PLAN

Orica has identified a number of alternative transport routes (See Table 2.2) consistent with route restrictions (as per Section 2.2), should there be disruptions, whether for business, transport or other reasons, which result in a need for changes to the normal haulage routes identified in this ORTP. The use of other routes outside the Kurri Kurri Locality not identified in Table 2.2 is also permitted under this ORTP (see section 2.2.3).

If an alternative transport route is required due to an emergency (e.g. fire, vehicle accident, etc) or unexpected event, vehicles will either voluntarily divert to the alternative transport route or they may be directed to do so by the relevant authorities (RMS, Police, SES or other emergency agency). In these circumstances Orica will not have sufficient time to communicate the use of the alternative transport route and will operate under the direction and control of any agency redirecting the traffic.

When there is sufficient notice of a need to use an alternative transport route within the Kurri Kurri Locality (e.g. upcoming road works / road closure, supply chain issue, etc), Orica will notify the change of route and duration to the following:

- DPIE;
- RMS;
- Cessnock City Council; and
- Local community (via advert run in the local newspaper).

2.4.1 PROCESS FOR ASSESSING NEW TRANSPORT ROUTES

The Transport Hazard Analysis (Sherpa, 2009), which informed the preparation of the Environmental Assessment:

- Considered the transport risks associated with project, specifically ANS and ANE transport to and from the site. Both ANS and ANE are classed as Dangerous Goods (DG) Class 5.1 oxidiser materials. Transport of these goods is regulated under the Australian Dangerous Goods Code (ADGC). As ANE contains over 45% Ammonium Nitrate (AN), it is also classified as Security Sensitive AN (SSAN) and is also regulated under the NSW Explosives Regulations 2005;
- assessed the ANS and ANE transport risks for nominated transport routes and incident scenarios;
- detailed the controls and mitigation measures to be implemented for the transport of ANS and ANE; and
- recognised the supply and distribution logistics complexities (i.e. multiple suppliers, material types, truck sizes, destinations and route restrictions) for the ANE Production Facility and addressed this by defining the Route Risk Analysis process to be implemented for new route(s).

Therefore when a new ANS or ANE transport route is proposed (except in an emergency or unforeseen event), a specific route risk analysis must be carried out by the transport contractor in accordance with AS/NZS 4360:2004 Risk Management Standard and the Australian Code for the Transport of Dangerous Goods by Road and Rail and the route risk analysis process as provided in Appendix B of Appendix 12. The route risk analysis and the notification of DPIE, RMS, Cessnock City Council, and local community is to be completed prior to the use of the new transport route.

As ANE and ANS are both dangerous goods risk code 5.1 – Oxidising Agent (Orica, 2018), they have a similar hazard and risk level. As such, the route risk analysis is appropriate for both ANS and ANE, even if only one product is specified. We note that the firefighting measures and accidental release measures differ slightly due to the different compositions of ANE and ANS. Therefore, the controls for ANE are more stringent

2.5 COMMUNITY ENQUIRIES

All community enquiries and complaints for the ANE Production Facility will be managed in accordance with the Orica's Enablon system (Orica's computer-based SHES reporting system). The safeguards and procedures outlined in Section 3.3 Communication of the Environmental Management Strategy will apply for the implementation of the Operational Road Transport Protocol with the following additional measures:

- all ANS and ANE product trucks are appropriately labelled with the relevant Dangerous Goods Signage. The number listed on these signs directs the caller to Orica Emergency Response Service (ERS) which is staffed 24/7. ERS staff will be briefed on the ORTP and all non-emergency related enquiries directed to the Orica Technical Centre;
- the Orica Technical Centre site sign reflects the relevant contact details for the ORTP, and
- relevant Orica Technical Centre operational staff are briefed on the ORTP and its obligations. All community enquiries relating to the ORTP will be directed to the ANE Production Facility Senior Manufacturing Supervisor.

Orica SHES procedure details the requirements for immediate action, investigation and reporting of events and non-compliances. This includes events which cause, or have the potential to cause injury, illness or damage to personnel offsite, damage to the environment, cause concern to the community, public or are reportable to statutory agencies, including non-compliances with statutory approvals.

Additional requirements for the investigation of SHES issues and management of corrective actions include the following requirements:

- the undertaking of immediate action to minimise the severity of an event or non-compliance;
- reporting of an initial event or non-conformance details where required, any 'quick fixes' undertaken and the longer term actions;
- initial assessment of the severity of an event or non-conformance and notification of key personnel by the ANE Production Facility Senior Manufacturing Supervisor and ERS personnel as required;
- investigation of an event or non-conformance and development of corrective actions where required;
- the review of any significant event by a member of the General Management Team within four weeks of the event;
- details are entered into 'Enablon (Orica's computer-based SHES reporting system) and these records of the event are retained indefinitely;
- enquiries relating to the operation of the ANE Production Facility including traffic movements will be managed via the main Orica Technical Centre enquiry line, phone number is (02) 4939 5200. Any enquiries or complaints received will be documented and transmitted to the ANE Production Facility Senior Manufacturing Supervisor immediately;
- if outside of normal office hours the caller will be directed to the Orica Emergency Response Service. The ERS services is staffed 24/7 with operators trained in Orica Emergency Response Procedures. The complaint will be managed by ERS appropriately according to risk. All complaints will be sent to the ANE Production Facility Senior Manufacturing Supervisor on the next working day. This phone number has been listed with a telephone company and is advertised via signage at the Orica Technical Centre entrance on George Booth Drive; and
- Orica will maintain a register to record details of all enquiries received and actions undertaken in response. Orica will provide Environment Protection Authority (EPA) with a copy of the enquiries register on an annual basis upon request.

2.6 IMPLEMENTATION OF TRAFFIC MANAGEMENT PLAN

The following measures are implemented to ensure the Traffic Management Measures detailed within this ORTP:

- the ORTP is available on the Orica website and hard copies are available on site and on request. A copy is also be kept in each delivery vehicle;
- the ORTP is included in the contract between Orica and the relevant haulage company; and
- the Traffic Management Measures detailed within this ORTP is included in Orica staff inductions and discussed at site meetings.

2.7 COMMUNICATION

The ANS and ANE haulage company/companies shall be requested to nominate a representative to liaise with the ANE Production Facility and Kurri Kurri Technical Centre management to ensure prompt follow up to any issues regarding the implementation of this ORTP.

3 DRIVER CODE OF CONDUCT

3.1 CODE OF CONDUCT

The Driver Code of Conduct is a mitigation measure proposed by Orica to manage potential impacts from heavy vehicle traffic associated with haulage to and from the site. The following Code of Conduct has been prepared in accordance with Condition 10c of Schedule 3 of the project approval and will apply to all relevant Orica employee drivers as well as all contracted drivers. Contractors are responsible for ensuring their drivers meet the requirements of this Code of Conduct.

3.1.1 TECHNICAL NOTE – ANE AND ANS TRANSPORT HAZARD ANALYSIS INPUT TO ENVIRONMENTAL ASSESSMENT

The measures outlined below are in addition to those measures described in Section 4.3 of the Technical Note (Appendix 12) for drivers and apply to all heavy vehicle drivers.

3.1.2 ORICA SHES PROCEDURES

Orica requires the following general measures relevant to Dangerous Goods transport to be adopted:

- driver training and accreditation;
- fatigue management;
- regular drug and alcohol testing;
- carrier accreditation;
- disciplinary procedures;
- carrier maintenance programs;
- Orica site and customer site procedures; and
- reporting and investigation of events.

3.1.3 DRIVER LICENSING AND TRAINING

All drivers are to be appropriately licensed to operate the relevant vehicle. Relevant licences must be able to be produced by the driver at all times. Appropriate training and information will be provided to all drivers on site during the induction process. Drivers will not be permitted to operate to or from the site without undertaking the site induction which includes the relevant measures from this ORTP.

3.1.4 TRAVELLING SPEEDS

Drivers must adhere to the sign posted speed limit at all times. In addition to the speed limits indicated by road signs drivers are to also follow temporary/construction speed limit signs and drive to the conditions at all times.

3.1.5 STAGGERED ARRIVALS AND DEPARTURES

All deliveries to and from the site will be regulated by the delivery schedule and managed on site by the ANE Production Facility Senior Manufacturing Supervisor. Shift start times for delivery drivers for ANS and ANE will also be staggered. Drivers should also endeavour to maintain appropriate separation distance between vehicles resulting from the staggered departure.

3.1.6 OVERTAKING

George Booth Drive has no passing lanes which allow haulage vehicles to overtake. Due to this there will be no overtaking of other moving vehicles unless under the direction of authorised traffic controllers (i.e. road works).

On other sections of the route, heavy vehicles can overtake where there are designated passing lanes. Vehicles should remain in the left lanes when not overtaking, to allow faster vehicles to pass.

3.1.7 VEHICLE SEPARATION

Drivers are to maintain a safe separation distance between all vehicle types at all times. Whilst the staggered arrival and departure of ANS and ANE heavy vehicle at the ANE Production Facility should result in a separation of several kilometres between these delivery vehicles, it is certain that other heavy vehicles will be encountered en-route. Where this does occur a safe separation distance between heavy vehicles is to be maintained. This is applicable to all heavy vehicle movements.

In the event of unavoidable queuing drivers will be required to note these details to assist in identifying trouble spots.

3.1.8 ROAD SHOULDERS AND PASSING OPPORTUNITY LANES

Drivers are generally to avoid straying onto road shoulders and haulage trucks should remain on the main section of the road pavement. Where there is a need to pass a turning vehicle on George Booth Drive between Richmond Vale Rd and John Renshaw Drive vehicles must use the 'passing opportunity' lanes that have been installed opposite driveways except in the case of extreme circumstances.

3.1.9 BRAKING

The use of exhaust brakes should be avoided at all times in both directions on the section of George Booth Drive between John Renshaw Drive and the intersection between Echidna Drive and George Booth Drive.

3.1.10 DESIGNATED HAULAGE ROUTE

All ANS and ANE drivers are required to strictly follow the relevant assessed designated haul route in the vicinity of the site at all times unless instructed otherwise. All other heavy vehicle movements in the vicinity of the site are to follow the appropriate route to site entry on Echidna Drive via John Renshaw Drive and George Booth Drive.

Designated haulage routes are outlined in Section 2.2. Should a new route(s) be proposed, the route risk analysis process as described in Section 2.4.1 is to be implemented.

3.1.11 PARKING

In the event that a heavy vehicle arrives at the ANE Production Facility early or outside the operating hours, the driver is to use RMS designated rest areas which are suitable for heavy vehicle parking.

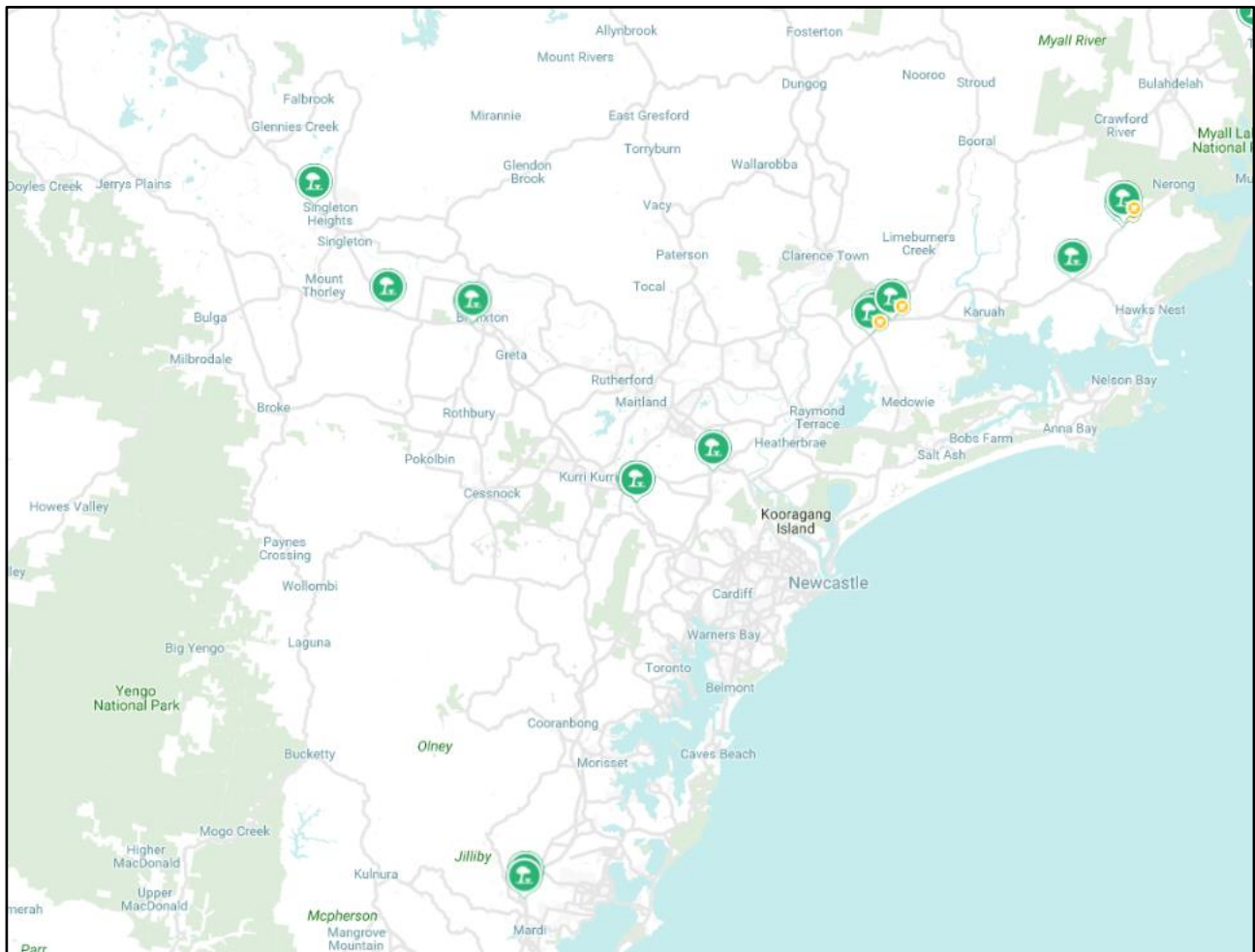
The RMS website includes an interactive map of these locations (<https://www.rms.nsw.gov.au/roads/using-roads/trip-information/rest-areas/map/>). As at the date of this plan, those heavy vehicles parking areas situated in the vicinity of the ANE Production Facility site are listed in Table 3.1 and displayed in Figure 3.1.

Heavy vehicles in the vicinity of the site must park in RMS designated rest areas. Therefore, parking along roadside on John Renshaw Drive and George Booth Drive is not permitted. When utilising the designated parking facilities, all drivers are to be courteous and park within the defined heavy vehicle parking bays at each location.

Should a truck arrive ahead of the schedule arrival time, there are designated on site truck parking areas which can be used for short term (i.e. <24 hours) truck parking.

Table 3.1 Project Approval Conditions for the Road Transport Protocol

Rest Area	Location	Accessible to
Wattaka Rest Area	Hunter Expressway, Kurri Kurri	Vehicles travelling eastbound and westbound
Beresfield Service Centre	John Renshaw Drive, Beresfield	Vehicles travelling northbound
Wyong Service Centre	Pacific Motorway, Wyong	Vehicles travelling northbound and southbound
Branxton Truck Rest Area	Hunter Expressway, Branxton	Vehicles travelling westbound
Branxton Truck Rest Area	New England Highway, Branxton	Vehicles Travelling eastbound

Figure 3.2 RMS Approved Truck Parking Areas in Vicinity of Kurri Kurri ANE Plant

3.1.12 SAFETY

Drivers of all heavy vehicles are required to strictly adhere to the general road rules. Professionalism and safe driving skills are required at all times including courtesy to other road users. Drivers should not only be aware of their own safe driving skills but also be aware of other road users who may not adhere to the road rules.

The safety measures described in the Technical Note such as the inclusion of a dangerous goods folder containing emergency information in all Dangerous Goods haulage vehicles must be maintained.

3.1.13 EVENT REPORTING

All drivers are required to report all incidents immediately to the ANE Production Facility Senior Manufacturing Supervisor and their supervisor.

All incidents will be managed in accordance with the Orica's Enablon system (Orica's computer-based SHES reporting system). Orica SHES procedure details the requirements for immediate action, investigation and reporting of events and non-compliances. This includes events which cause, or have the potential to cause injury, illness or damage to personnel offsite, damage to the environment, cause concern to the community, public or are reportable to statutory agencies, including non-compliances with statutory approvals.

Further details regarding the investigation of SHES issues and management of corrective actions is provided in Section 2.5.

External incident notification / reporting will be undertaken in accordance with Schedule 4, Condition 3 of the Project Approval (as modified) and Environment Protection Licence No 4121 - specifically the Pollution Incident Response Management Plan. When considering whether external incident notification and/ or reporting is to be undertaken, Chapter 5, Part 5.7, Section 147 of the *Protection of the Environment Operations Act 1997* which defines material harm to the environment (reproduced below) will be used as the trigger.

- “147 *Meaning of material harm to the environment***
(1) *For the purposes of this Part—*
 (a) *harm to the environment is material if—*
 (i) *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
 (ii) *it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*
 (b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*
(2) *For the purposes of this Part, it does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.”*

If external notification / reporting of an incident has been triggered, Orica will notify the Director-General of the Department of Planning, Industry and Environment and any other relevant agencies (e.g. NSW EPA and the local council for the area in which the pollution incident occurs; the NSW Ministry of Health; SafeWork NSW; and Fire and Rescue NSW), as soon as practicable after becoming aware of the incident.

Additionally, within 7 days of the date of an incident related to the site's operation, Orica is required to provide the Director-General and any relevant agencies with a detailed report on the incident (see in Schedule 4, Condition 3 of the original project approval). (NB There are “immediate” reporting obligations should an incident at the premises trigger the Pollution Incident Response Management Plan (PIRMP) required by the *Protection of the Environment Operations Act 1997*.)

3.2 COMPLIANCE

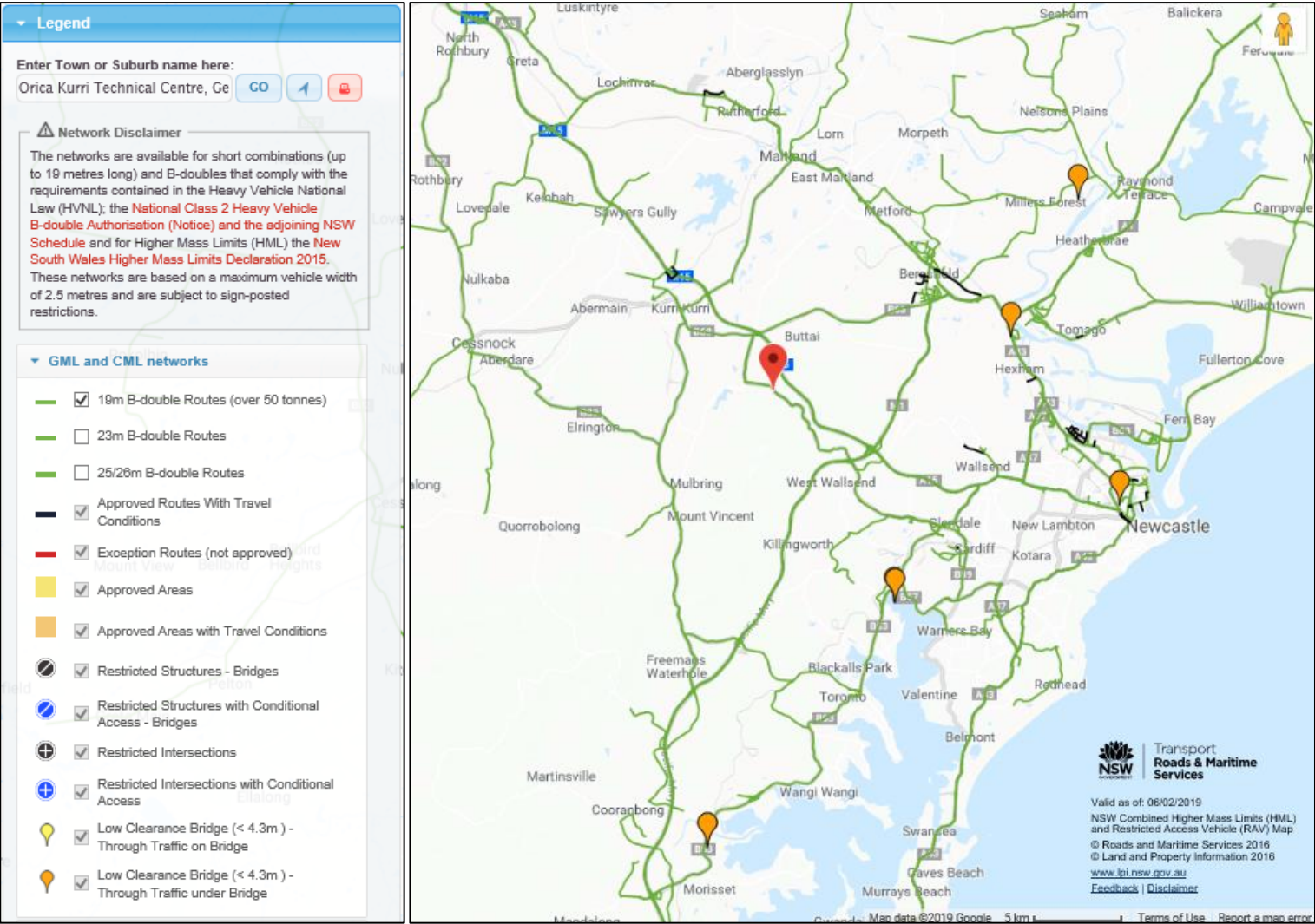
Orica and its contractors are responsible for ensuring that their respective drivers comply with the requirements of this Driver Code of Conduct at all times.

Compliance with the Driver Code of Conduct will be ensured via periodic monitoring of vehicle movements. All ANS and ANE vehicles will be fitted with a GPS system for monitoring of route and speed.

Drivers found to be non-compliant will be subject to their company's disciplinary process.

Serious breaches may result in the contractor or driver being prevented from accessing any Orica facility.

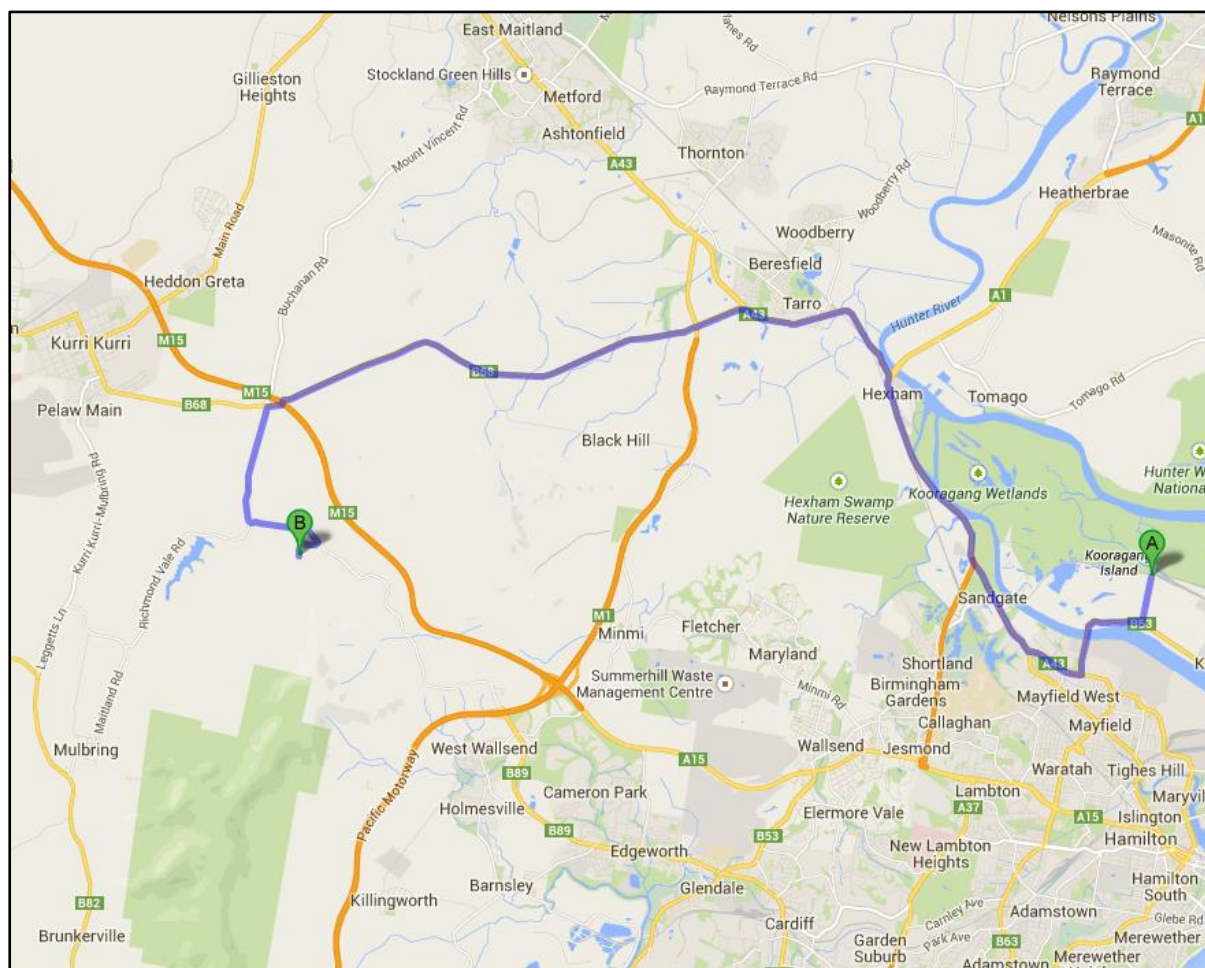
APPENDIX 1 – APPROVED RESTRICTED ACCESS VEHICLE ROUTES



APPENDIX 2 - KOORAGANG ISLAND TO RICHMOND VALE ANE PLANT (ANS NORMAL ROUTE)

From: Orica Kooragang Island – NSW

To: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

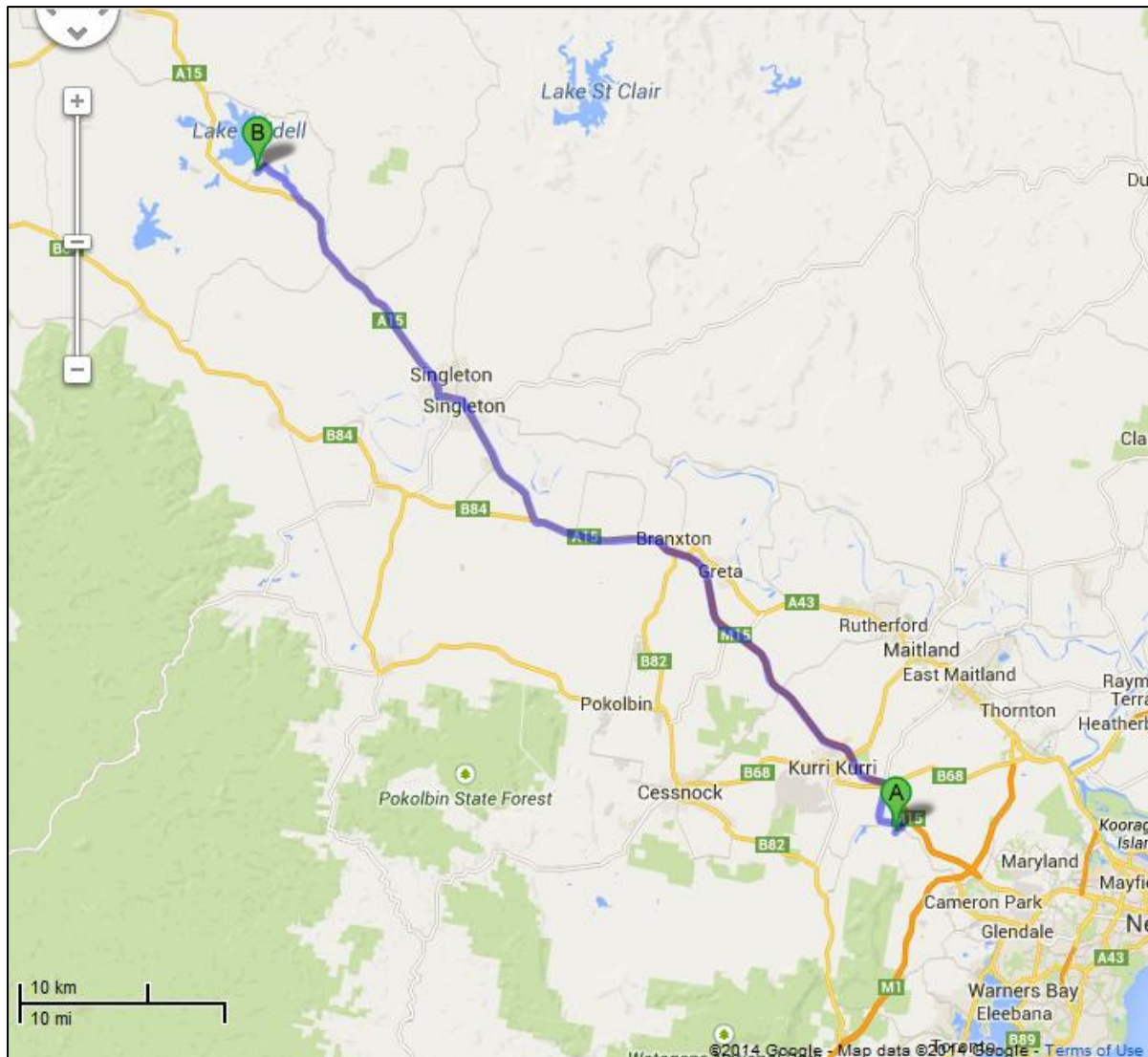


1	Head south towards S Arm Rd/Cormorant Rd/B63
2	Turn right onto S Arm Rd/Cormorant Rd/B63 Continue to follow S Arm Rd/B63
3	S Arm Rd/B63 turns right and becomes Industrial Dr/A43 Continue to follow A43
4	Slight left onto John Renshaw Dr/A1 (signs for Sydney/John Renshaw Drive/Kurri Kurri/Cessnock/National Route 1/State Route 132)
5	At the traffic lights continue straight through onto John Renshaw Dr/B68
6	At the roundabout, take the 2nd exit and stay on John Renshaw Dr/B68
7	At the roundabout, take the 1st exit onto George Booth Dr
8	Turn right onto Echidna Dr
Orica Australia Pty Ltd Kurri ANE Plant, Richmond Vale	

APPENDIX 3 - RICHMOND VALE ANE PLANT TO LIDDELL ANE PLANT (ANS NORMAL ROUTE)

From: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

To: Orica Liddell ANE Plant

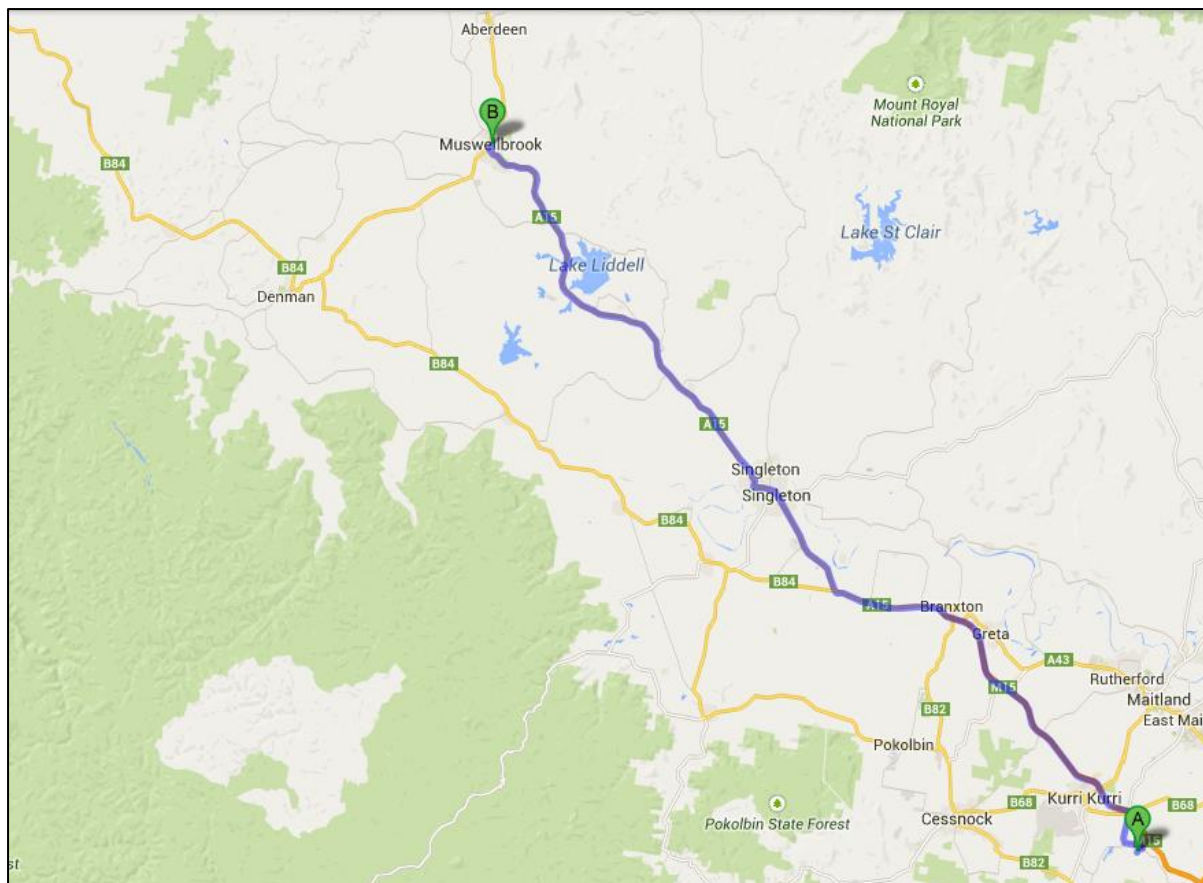


1	Head north on Echidna Dr towards George Booth Dr
2	Turn left onto George Booth Dr
3	At the roundabout, take the 3rd exit onto John Renshaw Dr/B68
4	At the roundabout, take the 1st exit onto the Hunter Expy/M15 ramp
5	Merge onto Hunter Expy/M15
6	Continue onto New England Hwy/A15 (Singleton)
7	Pikes Gully Road
Orica Australia Pty Ltd Liddell Site	

APPENDIX 4 - RICHMOND VALE ANE PLANT TO DEPOT SITES VIA M15 (ANE NORMAL ROUTE)

From: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

To: Depot Sites Muswellbrook



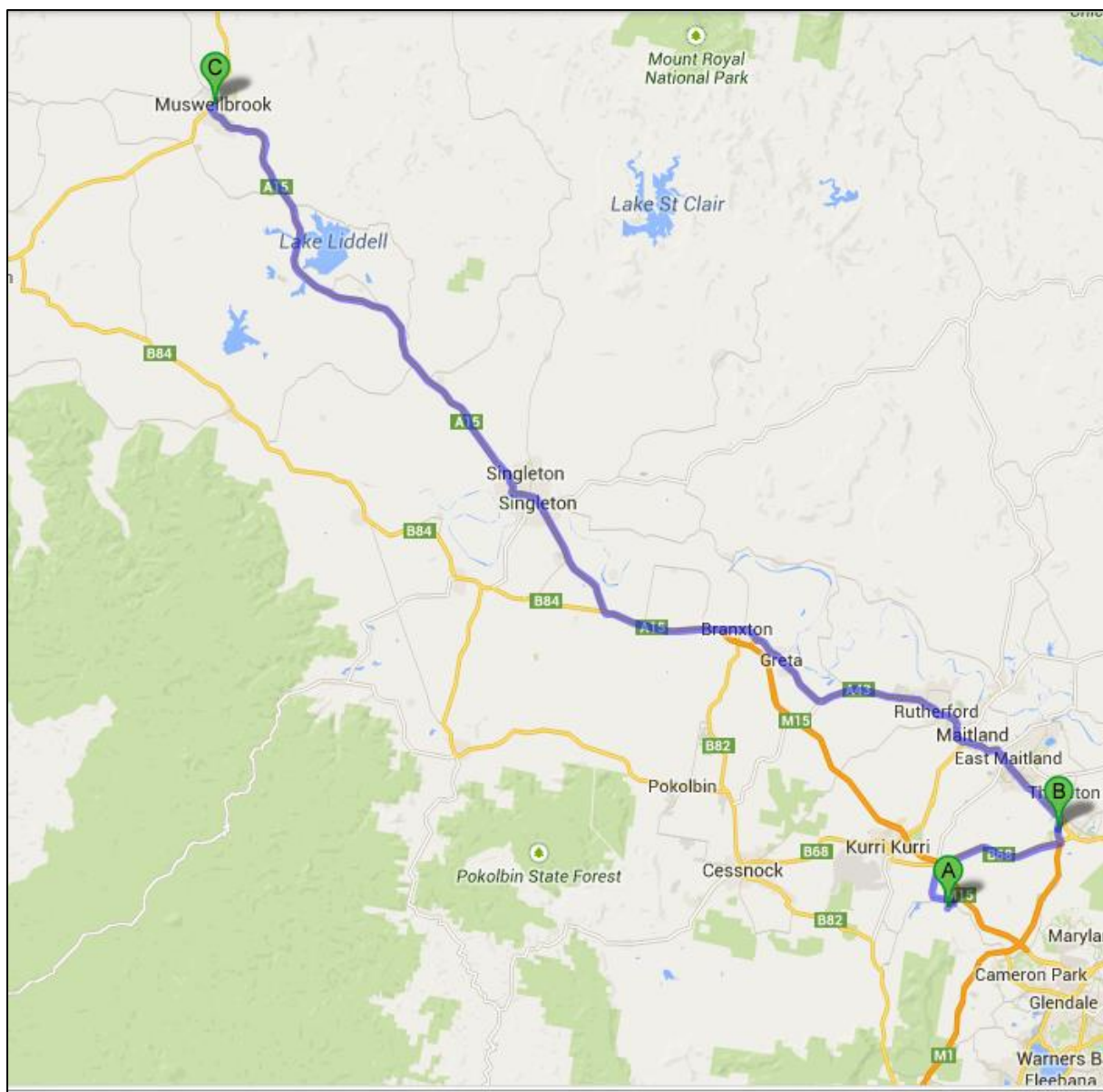
1	Head north on Echidna Dr towards George Booth Dr
2	Turn left onto George Booth Dr
3	At the roundabout, take the 3rd exit onto John Renshaw Dr/B68
4	At the roundabout, take the 1st exit onto the Hunter Expy/M15 ramp
5	Merge onto Hunter Expy/M15
6	Continue onto New England Hwy/A15 (Singleton)
Depot Sites (Hunter Area)	
Or if Southbound – Depot Sites (South East Region)	
1	Take M15 Buchanan Interchange Fwy to southbound M1

APPENDIX 5 - RICHMOND VALE ANE PLANT TO DEPOT SITES (ANE ALTERNATIVE ROUTE 1)

ANE **Alternate** Route 1 (This route has restricted usage or private roads) (Note this route was the primary route used to transport ANE to the Hunter Valley prior to the opening of the Hunter Expressway M15. It has since been replaced with the route shown in Appendix 4)

From: Orica Australia Pty Ltd, Richmond Vale ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

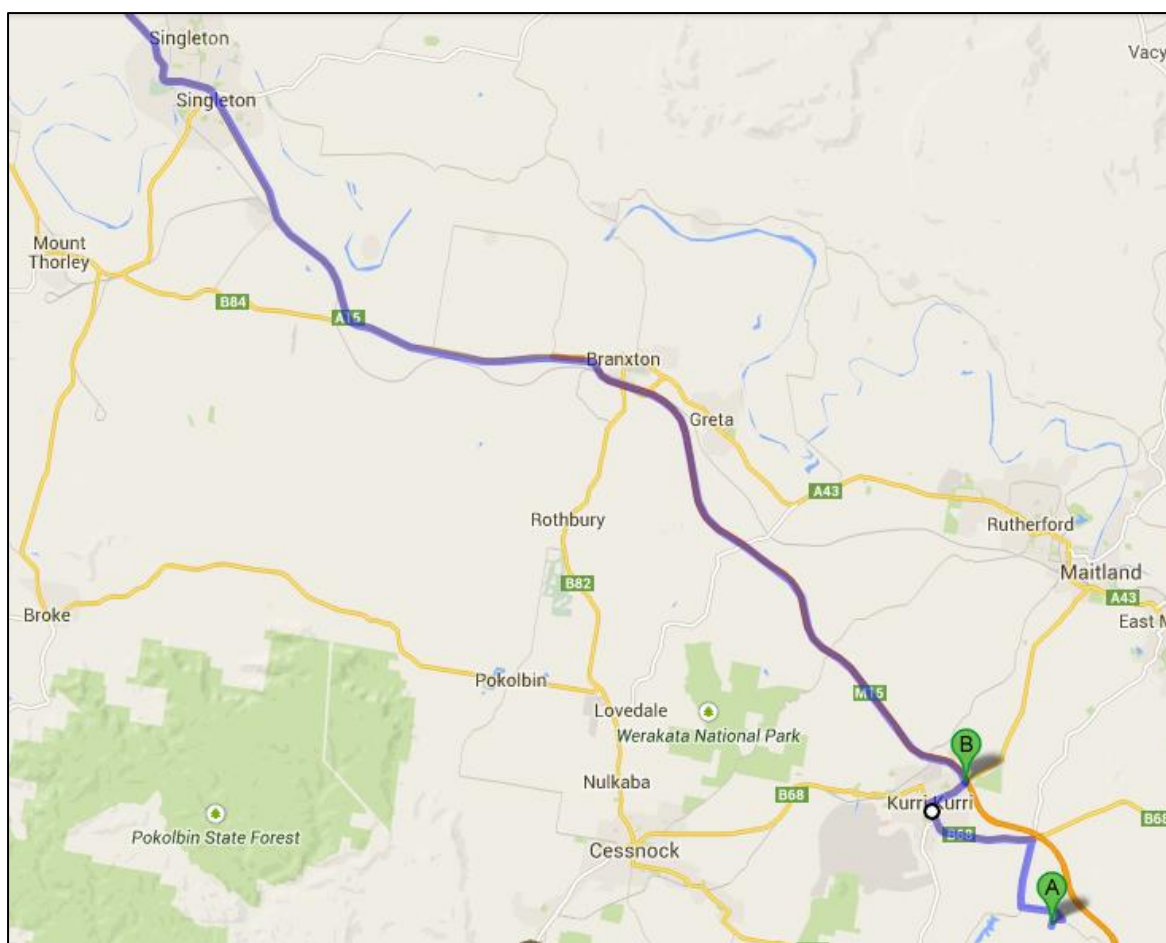
To: Depot Sites Muswellbrook



1	Head north on Echidna Dr towards George Booth Dr
2	Turn left onto George Booth Dr
3	At the roundabout, take the 3rd exit onto John Renshaw Dr/B68
4	At the roundabout, take the 2nd exit and stay on John Renshaw Dr/B68
5	At the traffic lights turn left onto Weakleys Dr heading to Maitland/Tamworth
6	Turn left onto the New England Highway ramp to National Highway 15/Maitland
7	Continue New England Highway through Maitland, Rutherford, Lochinvar
9	Proceed through Greta
10	At the roundabout, take the 3rd exit and stay on New England Hwy/A43(Branxton Interchange)
11	Proceed on New England Hwy/A43 to Muswellbrook
Depot Sites (Hunter Area)	
Or if Southbound – Depot Sites (South East Region)	
1	Take M15 Buchanan Interchange Fwy to southbound M1

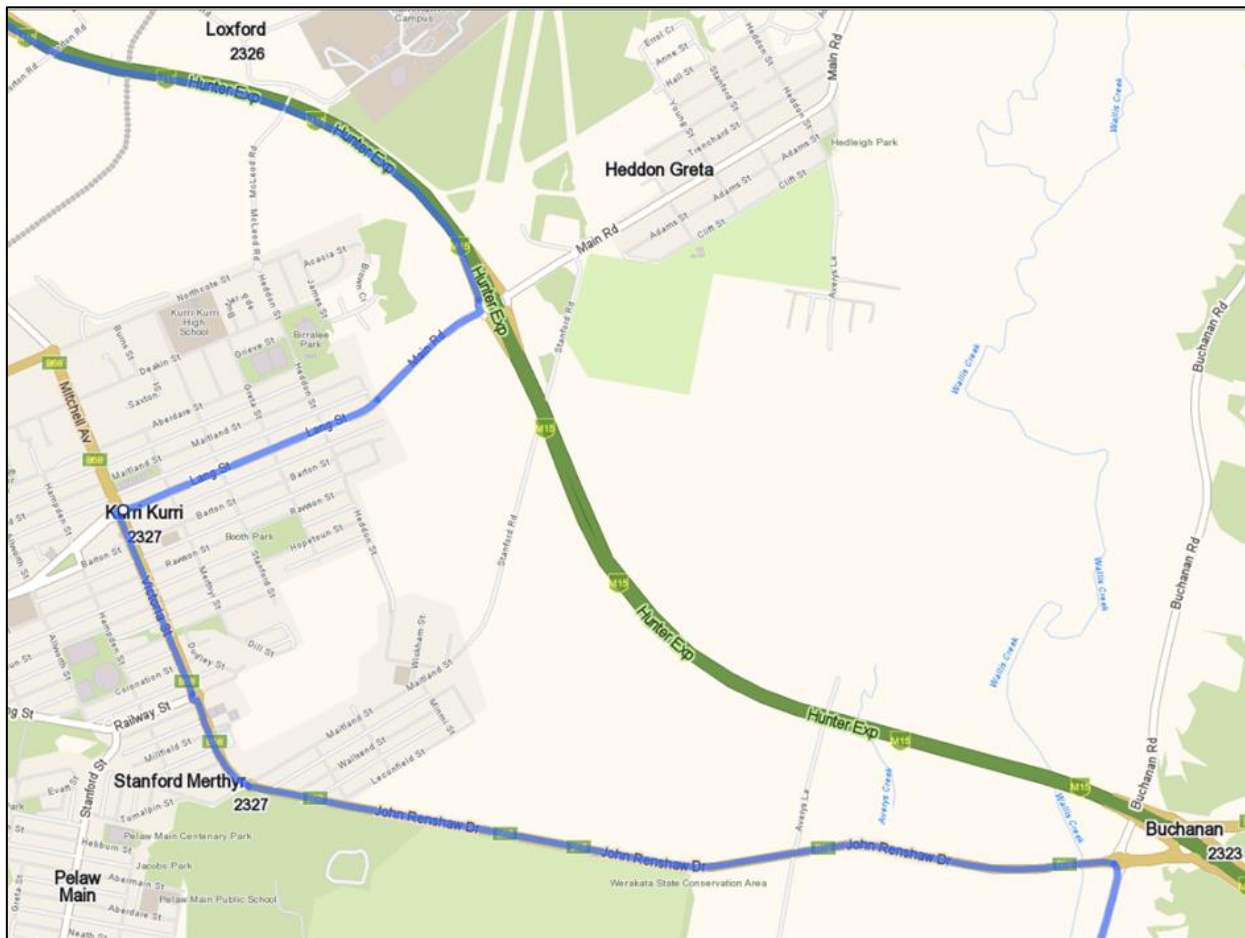
APPENDIX 6 - RICHMOND VALE RICHMOND VALE ANE PLANT TO DEPOT SITES (ANE ALTERNATIVE ROUTE 2)

This route to be taken only if there is a significant disruption to the normal haulage route and the only alternative route is through the Kurri township. If this route is required due to an emergency, vehicles will be directed by the relevant authorities (RMS, Police, SES or other emergency agency). When there is sufficient notice of the requirement to use this alternate route Orica will communicate the change of route, impact and duration to the RMS, Cessnock City Council and local community (via advert in the local newspaper).



1	Head north on Echidna Dr towards George Booth Dr Partial restricted usage road
2	Turn left onto George Booth Dr
3	At the roundabout, take the 1st exit onto John Renshaw Dr/B68 Continue to follow B68
4	At the roundabout, take the 3rd exit onto Lang St
5	Continue on Lang St /Main Rd
6	At the roundabout, take the 1st exit onto the Hunter Expy/M15 ramp
7	Merge onto Hunter Expy/M15
8	Continue onto New England Hwy/A15
9	Depot Sites (Hunter Area)

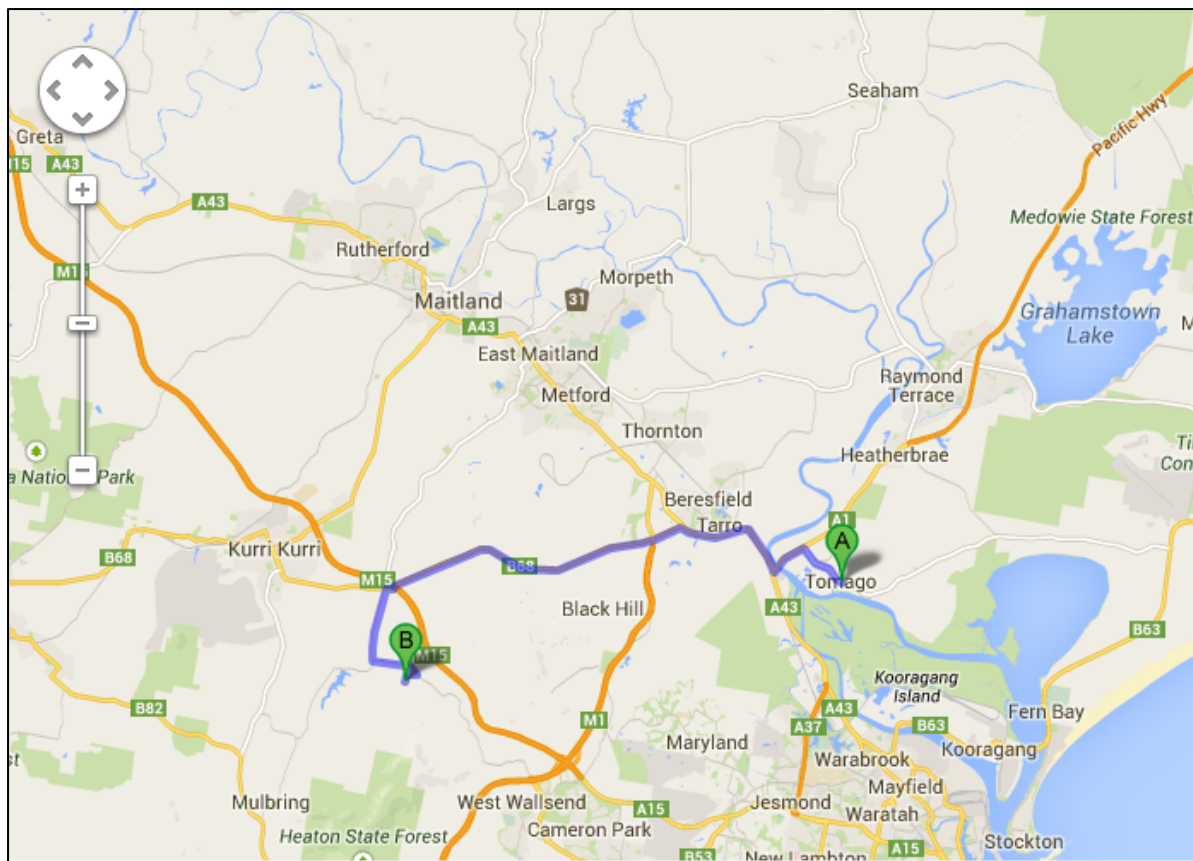
Alternate Route through Kurri Kurri township.



APPENDIX 7 - TOLL DEPOT - TOMAGO TO RICHMOND VALE ANE PLANT

From: Toll Depot - Tomago – NSW

To: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

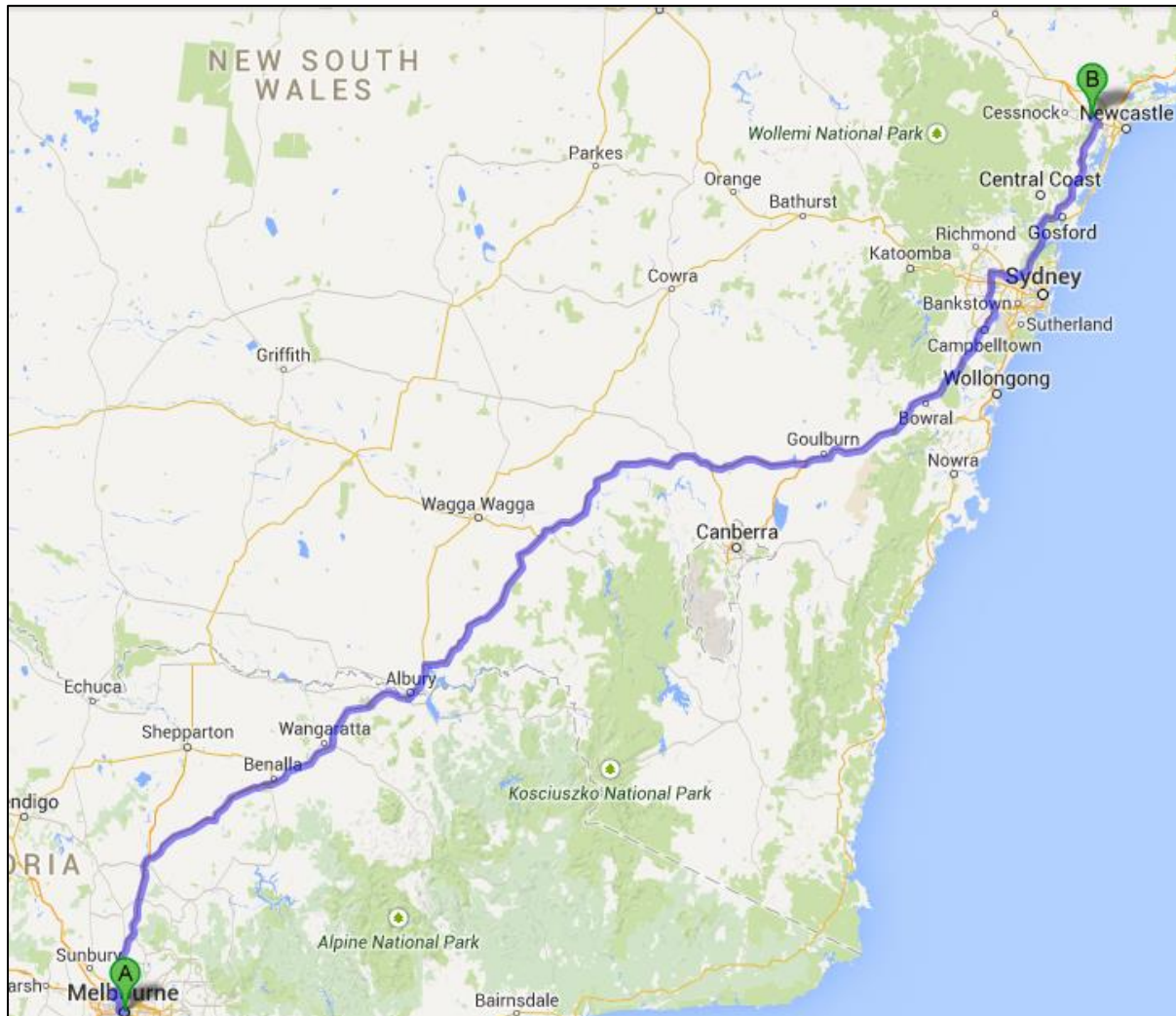


1	Head north-west on Tomago Rd
2	At the roundabout, take the 2nd exit and stay on Tomago Rd
3	Slight left onto Pacific Hwy/A1 Continue to follow A1
4	Take the 1st right onto New England Hwy/A1/A43
5	Slight left onto John Renshaw Dr/A1 (signs for Sydney/John Renshaw Drive/Kurri Kurri/Cessnock/National Route 1/State Route 132)
6	At the traffic lights continue straight through onto John Renshaw Dr/B68
7	At the roundabout, take the 2nd exit and stay on John Renshaw Dr/B68
8	At the roundabout, take the 1st exit onto George Booth Dr
9	Turn right onto Echidna Dr
Orica Australia Pty Ltd Kurri ANE Plant, Richmond Vale	

APPENDIX 8 - MELBOURNE TO RICHMOND VALE ANE PLANT

From: Melbourne

To: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

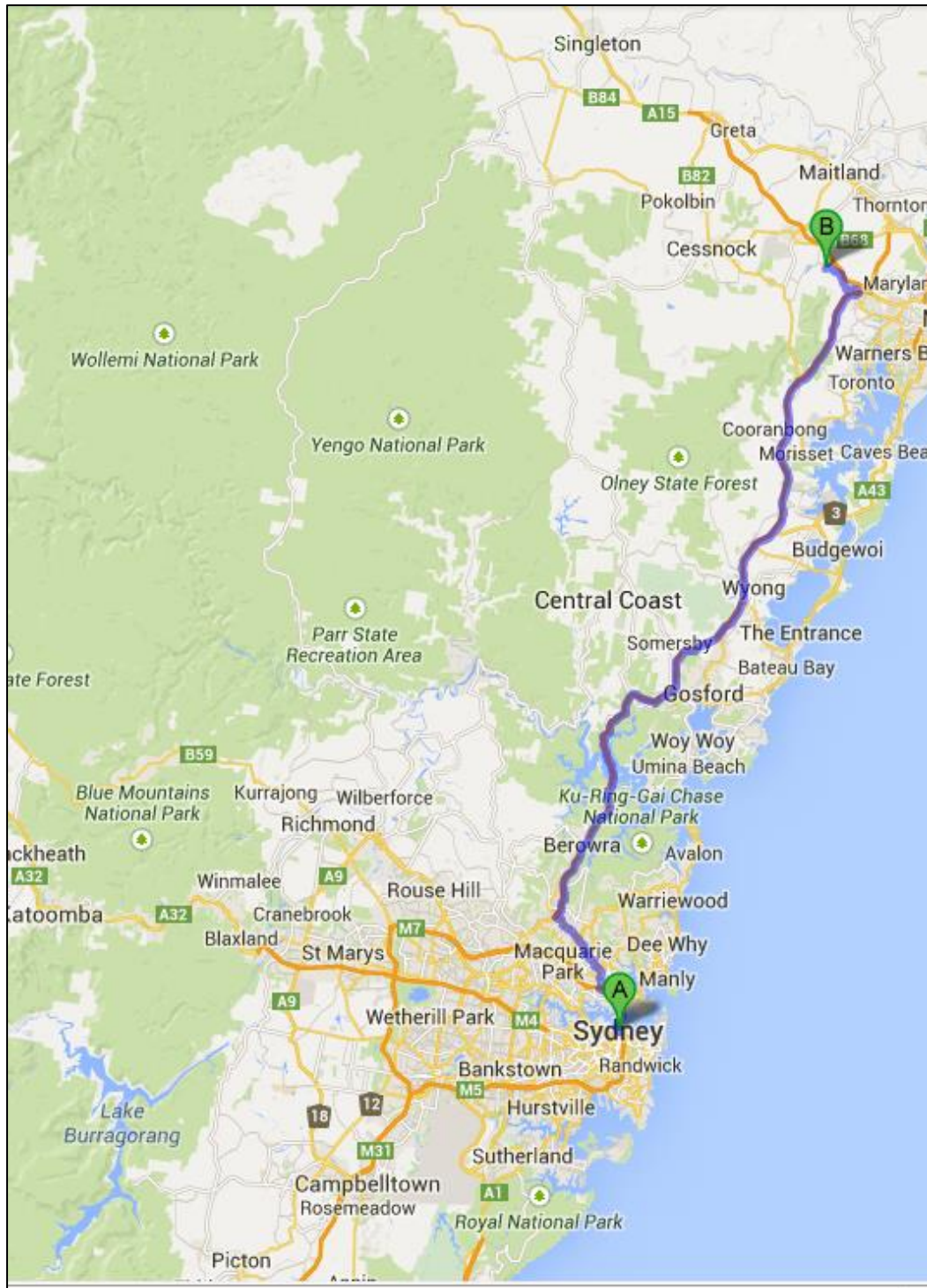


1	Head south on Bourke St towards Bourke St
2	Turn right onto King St/State Rte 60
3	Turn left onto Hawke St
4	Turn right onto Spencer St/State Route 50 Continue to follow State Route 50
5	Take the Route 43 ramp to Citylink Tollway/Bendigo/HUME HIGHWAY/Airport Toll road
6	Merge onto M2 Partial toll road
7	Keep right at the fork to stay on M2 , follow signs for Route 43/National Highway M31/Tullamarine Freeway/Melbourne Airport/Hume Freeway
8	Take exit Western Ring Rd for National Highway M80 towards National Highway M31/Hume Freeway
9	Keep right, follow signs for M80/M31/Hume Fwy/Greensborough and merge onto M80
10	Take the Hume Freeway exit towards M31/Seymour/Sydney
11	Continue onto M31 Entering New South Wales
12	Take the M7 exit towards Blacktown/Newcastle Toll road
13	Continue onto M7 Toll road
14	Continue onto M2 Toll road
15	Take exit Pennant Hills Road for Metroad 7 towards Hornsby/Newcastle Toll road
16	Merge onto Cumberland Hwy/Pennant Hills Rd/A28
17	Turn right onto the ramp to Pacific Motorway
18	Continue onto Pacific Motorway (signs for F3 Freeway/Newcastle/National Highway 1)
19	Veer left exit onto Hunter Expressway M15 , take next left exit also to M15
20	Take exit onto John Renshaw drive B68 (East Maitland)
21	Take 1 st exit onto John Renshaw Drive
22	At the roundabout, take the 1 st exit onto George Booth Dr
23	Turn right into Echidna Drive, enter through Boom Gates Partial restricted usage road
Orica Australia Pty Ltd Kurri ANE Plant, Richmond Vale	

APPENDIX 9 - SYDNEY TO RICHMOND VALE ANE PLANT

From: Sydney

To: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323

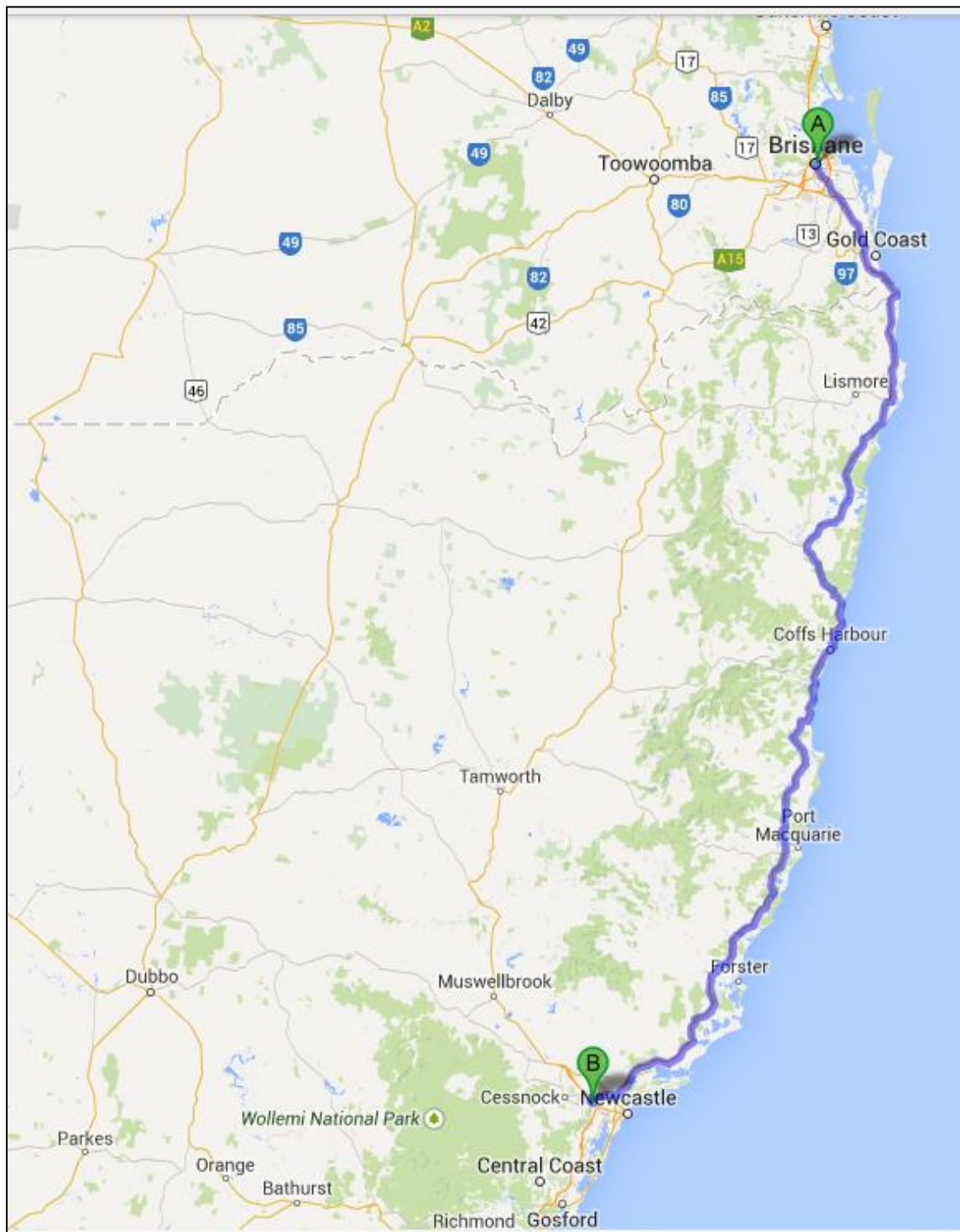


1	Head north on George St towards Angel Pl
2	Turn left onto Grosvenor St
3	Merge onto Bradfield Hwy
4	Keep right at the fork to stay on Bradfield Hwy , follow signs for Metroad 1
5	Continue onto M1
6	Take the PACIFIC HIGHWAY exit towards Chatswood/Newcastle
7	Continue onto Pacific Hwy/A1
8	Turn right onto the ramp to F3 Freeway/National Highway 1/Newcastle
9	Merge onto Pacific Motorway M1 continue North
10	Veer left exit onto Hunter Expressway M15 , take next left exit also to M15
	Take exit onto John Renshaw drive B68 (East Maitland)
11	Take 1 st exit onto John Renshaw Drive
12	At the roundabout, take the 1st exit onto George Booth Dr
13	Turn right into Echidna Drive, enter through Boom Gates Partial restricted usage road
Orica Australia Pty Ltd Kurri ANE Plant, Richmond Vale	

APPENDIX 10 - BRISBANE VIA PACIFIC HIGHWAY TO RICHMOND VALE ANE PLANT

From: Brisbane via Pacific Highway

To: Orica Australia Pty Ltd, Kurri ANE Plant, Echidna Drive, Richmond Vale, NSW 2323



1	Head north-west on George St towards Burnett Ln
2	Turn left onto Ann St
3	Slight right to stay on Ann St
4	Continue onto Pacific Motorway
5	Merge onto Pacific Motorway Entering New South Wales
6	Continue onto Pacific Hwy
7	Turn left onto Centenary Dr (signs for Centenary Drive/Clarenza/Bom Bom)
8	Turn left onto Pacific Hwy
9	At the roundabout, take the 2nd exit and stay on Pacific Hwy heading to Pacific Highway/Kempsey
10	At the roundabout, take the 1st exit and stay on Pacific Hwy
11	At the roundabout, take the 2nd exit onto Pacific Hwy/A1 Continue to follow A1
12	Turn right onto New England Hwy/A1/A43
13	Slight left onto John Renshaw Dr/A1 (signs for Sydney/John Renshaw Drive/Kurri Kurri/Cessnock/National Route 1/State Route 132)
14	At the traffic lights continue straight through onto John Renshaw Dr/B68
15	At the roundabout, take the 2nd exit onto John Renshaw Dr/B68
16	At the roundabout, take the 1st exit onto George Booth Dr
17	Turn right onto Echidna Dr
Orica Australia Pty Ltd Kurri ANE Plant, Richmond Vale	

1	Head north-west on George St towards Burnett Ln
2	Turn left onto Ann St
3	Merge onto Pacific Motorway/M3 via the ramp to Coronation Drive/Toowong Continue to follow M3
4	Take the ramp on the right to Sunshine Coast
5	Keep left, follow signs for Milton Rd and merge onto Milton Rd/State Route 32
6	At the roundabout, take the 2nd exit onto Mount Coot-Tha Rd/Metroad 5 heading to M5/Western Freeway/Ipswich/Toowoomba/Mount Coot-Tha
7	Slight left onto Metroad 5
8	Continue onto M5
9	Take exit Ipswich Motorway on the right to merge onto M7 towards Ipswich/Toowoomba
10	Continue onto M2
11	Keep right at the fork to continue on M15 , follow signs for Warwick/National Highway 15
12	Continue onto National Highway A15
13	Continue straight to stay on National Highway A15
14	Keep left to stay on National Highway A15
15	Turn right to stay on National Highway A15
16	Turn left onto New England Hwy/Wallace St/A15 Continue to follow New England Hwy/A15, Entering New South Wales
17	At the roundabout, take the 2nd exit and stay on New England Hwy/A15
18	At the roundabout, take the 2nd exit and stay on New England Hwy/A15
19	At the roundabout, take the 2nd exit onto Armidale Rd/Marius St/New England Hwy/Oxley Hwy/B56
20	At the roundabout, take the 1st exit onto White St
21	At the roundabout, take the 3rd exit onto Peel St
22	Head north-west on Peel St towards Brisbane St/Oxley Hwy/B56
23	Take the 1st left onto Brisbane St/Oxley Hwy/B56 Continue to follow Oxley Hwy/B56
24	Turn left onto Ebsworth St/New England Hwy (signs for Muswellbrook/Sydney) Continue to follow New England Hwy
25	Turn left onto Maitland St/New England Hwy/A15 (signs for Singleton/New England Highway/National Highway 15) Continue to follow New England Hwy/A15
26	Continue straight onto Hunter Expy/M15
27	Take the exit towards John Renshaw Dr/B68
28	At the roundabout, take the 3rd exit onto John Renshaw Dr/B68
29	At the roundabout, take the 1st exit onto George Booth Dr
30	Turn right onto Echidna Dr
Orica Australia Pty Ltd Kurri ANE Plant, Richmond Vale	

APPENDIX 12 - ANE AND ANS TRANSPORT HAZARD ANALYSIS – TECHNICAL NOTE

TECHNICAL NOTE ANE and ANS Transport Hazard Analysis Input to Environmental Assessment

Prepared for: Richard Sheehan, Orica
Prepared by: Jenny Polich, Sherpa Consulting

Rev	Date	Description	Prepared By	Checked By
A	8 Jan 2009	Draft for client comment	Jenny Polich	-
B	2 Oct 2009	Updated draft for client comment	Jenny Polich	Phil Johnson
0	8 Oct 2009	Final Issue for inclusion in EA	Jenny Polich	Phil Johnson

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TECHNICAL NOTE

ANE and ANS Transport Hazard Analysis

Input to Environmental Assessment

Prepared for: Richard Sheehan, Orica

Prepared by: Jenny Polich, Sherpa Consulting

Rev	Date	Description	Prepared By	Checked By
A	8 Jan 2009	Draft for client comment	Jenny Polich	-
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1 BACKGROUND

1.1 Project Description

Orica Australia (Orica) proposes to build a new Ammonium Nitrate Emulsion (ANE) Production Facility at their Kurri Kurri Technical Centre located off George Booth Drive, Richmond Vale NSW. The new plant will meet the projected Ammonium Nitrate Emulsion demand in the South East Region to 2020 and beyond. The plant is expected to manufacture up to 250,000 tonnes per annum of ANE at maximum production, using Ammonium Nitrate Solution (ANS) from Orica's Kooragang Island manufacturing facility as the main feed.

Umwelt Australia Pty Ltd is preparing an Environmental Assessment for the Project, on behalf of Orica which will be submitted to the approval authority, the NSW Department of Planning (DoP), under Part 3A of the Environmental Planning & Assessment Act. Sherpa Consulting Pty Ltd (Sherpa) has been retained to assist in

completing the risk assessment activities associated with the transport of the product and the raw materials for the project.

1.2 Scope and Objectives

Orica has determined that the Environmental Assessment (EA) should include some consideration of transport risks associated with project, specifically ANE and ANS transport to and from the site. Both ANE and ANS are classed as Dangerous Goods (DG) Class 5.1 oxidiser materials. Transport of these goods is regulated under the Australian Dangerous Goods Code (ADGC). As ANE contains over 45% Ammonium Nitrate (AN), it is also classified as Security Sensitive AN (SSAN) and is also regulated under the NSW Explosives Regulations 2005.

A brief technical note has been prepared summarising the potential transport incident scenarios involving ANE or ANS and identifying the safeguards in place. This technical note will be included as an appendix in the Project EA.

1.3 Limitations

Various other chemicals including DG Class 8 corrosives (such as acetic acid and caustic soda) and combustible liquids (e.g. diesel, canola) will be used in the facility, but are not covered by this technical note. It should be noted that large quantities of these types of materials are routinely transported in most areas of Australia including the Newcastle region.

Review of any changes in heavy vehicle numbers and implications for the existing roads is addressed in the Traffic Impact section of the Environmental Assessment. However it is noted that the traffic impact assessment concludes that the overall increase in heavy vehicle numbers can be easily accommodated within the existing road network.

2 TRANSPORT OF HAZARDOUS MATERIALS

ANS and ANE transport quantities anticipated for the Project are summarised in Table 2.1. Note that these reflect the final capacity of the facility at maximum capacity. Initially, ANE plant operations are expected to be at lower capacity, hence require a smaller number of vehicles.

The roads on the routes to and from the Technology Centre site at Richmond Vale are well maintained, and are currently used for transport of Dangerous Goods, including Class 5.1 materials. ANE is currently transported from Orica's Liddell site to the Kurri Kurri site in small quantities (averaging one single tanker per week for the existing Quarry Services business at Kurri Kurri). The route is confirmed B-double capable by the NSW RTA.

TABLE 2.1 ANS AND ANE HEAVY VEHICLE TRANSPORT SUMMARY

Route	Material	Load size (tonnes)	No of vehicles per day	Comments
Orica Kooragang Island to Orica Technology Centre site	ANS (88% at 110°C)	B-Double - 38 ISO/ Single - 23	16	Based on 250,000tpa max capacity and average load size for tankers/ISO's.
Orica Technology Centre site to various existing Depot sites in Hunter region and South Eastern Australia.	ANE	B-Double - 38 ISO/ Single - 23	22	Based on 250,000tpa max capacity and average load size for tankers/ISO's.

2.1 Routes

ANS:

Currently hot ammonium nitrate solution (88% ANS at 110°C) is transported via dedicated tankers from Kooragang Island (KI) via Maitland and Singleton to the Orica Liddell manufacturing site in both single tankers and B-Doubles. The majority of the route is along the New England Highway.

The latter part of the route will change as shown in Table 2.2 when ANS is transported to the proposed ANE Production Facility at the Technology Centre. The tankers will turn off the New England Highway at the John Renshaw Drive junction, travelling along John Renshaw Dr until the intersection with George Booth Dr, where they will turn onto George Booth Drive continuing to the site approximately 5 km to the east at Richmond Vale. The vehicles will enter the Orica Technical Centre using an existing entrance on George Booth Drive and travel to the proposed ANE Production Facility using a new internal access road.

TABLE 2.2 ANS ROUTE

ANS Current Route (KI to Liddell)	ANS Modified B-Double route (KI to Kurri Kurri Site)
Cormorant Rd	Cormorant Rd
Tourle St	Tourle St
Industrial Dr	Industrial Dr
Maitland Rd	Maitland Rd
Pacific Highway	Pacific Highway
New England Highway (via Maitland and Singleton)	New England Highway
Pikes Gully Rd	John Renshaw Dr
Liddell site.	George Booth Dr
	Technical Centre site

ANE:

ANE will be manufactured at the Kurri Kurri site and transported via tanker to various existing Orica Depot Sites in the Hunter Valley and South East Australia region. From the depot sites Mobile Manufacturing Units (MMUs) operate to transport the ANE to the mine site where it is sensitised prior to use. The Project will have no effect on the MMU transport activities from the depot sites.

The ANE route from Technology Centre site to the Depot sites is summarised in Table 2.3. The likely variation to the route following the planned construction of the F3 Freeway extension is also detailed.

The ANE tankers are dedicated and do not carry any other materials. Various tanker configurations which are able to carry either 20, 22 or 38 tonne of ANE are used. Small quantities (250L each) of gasser solution (dilute sodium nitrite / water solution) and companion solution (low concentration ANS) may also be carried on the ANE tankers in separate tanks on the vehicles.

TABLE 2.3 ANE ROUTE

ANE Route (Kurri to Depot sites)	ANE Route (Kurri to Depot sites after F3 Freeway extension)
George Booth Dr	George Booth Dr
John Renshaw Dr	John Renshaw Dr Hunter Expressway on-ramp
Mulbring St, Kurri Kurri	Hunter Expressway (F3 Freeway extension)
Tarro St, Kurri Kurri	New England Hwy at Branxton
Lang St, Kurri Kurri	New England Hwy (Singleton)
Main Rd	Depot Sites (South East Region)
Cessnock Rd	Or
New England Hwy at Maitland	F3 Freeway Northbound or Southbound
New England Hwy (Singleton)	Depot Sites (South East Region)
Depot Sites (Hunter area)	
Or	
As above to John Renshaw Dr	
F3 Freeway Northbound or Southbound	

2.2 Legislation, Codes and Standards

Transport of Dangerous Goods such as ANE and ANS is regulated under the ADG7 (Australian Dangerous Goods Code, version 7) managed by WorkCover NSW and for substances classified as SSAN under the NSW Explosives Regulations 2005. In summary for ANE and ANS, the regulations require that

- A road vehicle transporting dangerous goods should wherever practicable avoid heavily populated or environmentally sensitive areas, congested crossings, tunnels, narrow streets, alleys, or sites where there is, or may be, a concentration of people.
- Routes should be pre-planned wherever possible.
- Routes should be selected to minimise the risk of personal injury, of harm to the environment or property during the journey.
- A risk assessment in accordance with *AS4360 Risk Management* be prepared. (This is undertaken on a route specific basis by the transport company).
- Both drivers and vehicles are Dangerous Goods licensed.
- Vehicles carrying Dangerous Goods adhere to design standards.
- For SSAN materials, the appropriate security clearance for the drivers has been obtained.

2.3 Internal Orica standards, policies, procedures

Orica have corporate standards applicable to transport generally and ANE specifically. The Orica Model Procedures (specifically MP-SF-014: Selection and Management of Transport & Storage Contractors and MP-SF-016: Transport of Dangerous and Non-Dangerous Goods) require the following general measures relevant to DG transport be adopted:

- Driver training and accreditation
- Carrier accreditation
- Disciplinary procedures
- Carrier maintenance programs
- Orica site and customer site procedures
- Reporting and investigation of incidents

Internal engineering guidelines specifically applicable to ANE and ANS transport and design of road tankers include Bulk Distribution Tankers For Emulsion Phase And Oxidiser Liquors, Orica (23/9/98)

This outlines Orica's commitments under the legislation listed below to ensure safe and effective operation of ANE and ANS delivery units, ensuring that they are constructed to applicable regulatory and engineering design requirements.

- Australian Code for the Transport of Dangerous Goods by Road and Rail (Australian Dangerous Goods Code). Specifically:
 - Section 3.4 Marking of Road Vehicles
 - Section 3.7 Requirements for Emergency Information Panels
 - Section 6.3 Application for approval and notification requirements
 - Section 6.5 Road Standards
 - Section 6.8 Approval
 - Section 6.9 Alternative Design Criteria
 - Section 6.10 Maintenance
- Australian Design Rules for Motor Vehicles and Trailers (ADR's).
- AS1210 Pressure Vessels.
- AS1554.1 Structural Steel Welding - Welding of Steel Structures.
- AS1841.5 Portable Fire Extinguishers - Specific Requirements for Dry Powder Type Extinguishers
- AS2809.1 Road Tank Vehicles for Dangerous Goods - General Requirements.

- AS2809.2 Road Tank Vehicles for Dangerous Goods
- AS2809.4 Road Tank Vehicles for Dangerous Goods - Tankers for Toxic and Corrosive Cargoes.
- AS4326 The Storage and Handling of Oxidising Agents

As per the guideline ANS and ANE tankers are designed with emergency venting capacity based on experimentally measured vapour generation in a decomposition event.

3 HAZARD IDENTIFICATION

Both ANS and ANE are classified as Dangerous Goods and an assessment of the potential hazards associated with the transport of these products has been undertaken to ensure that appropriate safeguards are in place.

3.1 ANS Properties

Hot ammonium nitrate solution (88% ANS at 110oC) will be transported from Orica's Kooragang Island site to the Technology Centre site via tanker as discussed in Section 0.

ANS is a class 5.1 PGII oxidiser, UN number 2426. The main hazard associated with handling AN solutions is decomposition due to excessive heating and/or contamination, and eventually explosion if the decomposition gases are sufficiently confined (e.g. in an inadequately vented storage tank). Contaminants such as acids, chlorides, organics, alkali metals, and nitrites increase the risk of decomposition.

Most of the gaseous decomposition products from a decomposition event are toxic. These gases can include ammonia (NH₃), nitrous oxide (N₂O), nitric oxide (NO), nitrogen dioxide (NO₂), and nitric acid vapour (HNO₃). NO₂ is the most toxic of these.

Assuming ANS is uncontaminated, it is highly insensitive to friction and impact and essentially insensitive to sparks (i.e. low explosion risk). ANS does not burn, but as an oxidising agent, will support fire, even in the absence of an external source of oxygen.

ANS also poses an environmental hazard if it reaches a waterway due to its high nitrogen content. High concentrations of nitrogen can be toxic to aquatic life and grazing animals if ingested.

3.2 ANE Properties

ANE is a mixture of around 70% ammonium nitrate (AN), 15% water and the balance hydrocarbon based materials. All bulk emulsions manufactured at the proposed ANE plant will fall within the UN definition of Ammonium Nitrate Emulsion (ANE) Intermediate for Blasting Explosives, Class 5.1 PGII, UN number 3375.

Bulk emulsions produced at the Technology Centre site will not contain any self explosive ingredients. However once ANE has been produced, the main hazard is decomposition due to excessive heating and/or contamination which can cause accelerating decomposition to the point where explosion or detonation can occur.

Sensitivity to accidental decomposition/detonation is increased by the presence of energetic sensitising materials such as fuel oil or chemical contaminants.

ANE's are insensitive to friction and impact and also insensitive to sparks.

While ANE's are liquids, they are extremely viscous, and solidify quickly when cooled, hence do not pose a significant environmental hazard in the event of a spill.

3.3 Hazardous Incidents

The event of most concern during transport of ANE or ANS is explosion. Potential causes of an explosion for either ANS or ANE are:

Decomposition of contaminated load and confinement of gases, resulting in explosion en-route.

Vehicle fire engulfs load resulting in decomposition, confinement of gases and explosion. A fire could be initiated by various causes including electrical or mechanical faults, a tyre fire or a vehicle accident or collision.

Note that impact alone is not a credible cause of ANE or ANS explosion in a vehicle accident as:

- ANS and ANE is insensitive to impact (i.e. does not explode on impact / shock).
- Impact in a vehicle accident is not of sufficiently high energy to cause explosion of ANE. A high energy explosive charge (such as a detonator) is required to initiate an explosion.

A review of transport incidents within Orica and within the industry indicates that vehicle fires and accidents involving ANE and ANS transport vehicles do occur. However escalation to involve the ANE or ANS load is extremely uncommon and takes a period of time to escalate to conditions which could potentially result in an explosion, providing time to isolate the accident area.

There is only one incident in Orica's records (globally) where escalation to an ANE load and explosion occurred involving an MMU unit carrying class 1 explosive ANFO material. The ANS and ANE vehicles from the Kurri site will not be carrying any class 1 dangerous goods (explosive) materials.

4 CONTROLS AND MITIGATION

Orica has implemented a number of measures to ensure that the risk associated with the transport of ANS and ANE is minimised, with a summary of these controls detailed in the sections below. These controls are audited at least annually in accordance with Orica model procedures.

In addition, in the event of a transport related incident there are procedures in place to prevent escalation of the event and minimise the risk to the community and the environment.

These are described in the following sections and also summarised in the Hazard Identification Word Diagram in APPENDIX A.

4.1 Product Contamination Controls

To prevent risks associated with the contamination of ANS and ANE with other products the following controls have been implemented.

- Quality control processes at Kooragang Island to ensure that the ANS is suitable for transport from the site;
- Quality control processes at the Technology Centre Kurri site to ensure that the ANE product is suitable for transport;
- Dedicated ANS and ANE Tankers for the transport of each product, ensuring that non compatible materials are not introduced during transport;
- Filling nozzles and loading facilities for the ANS, ANE and other chemicals are of different configurations and sizing to prevent incorrect loading; and
- Separate, dedicated tanks for the small loads of gasser and companion solution transported with the ANE.

4.2 Truck Controls

To minimise the potential for escalation of an incident as a result of an accident or vehicle fire the following controls are incorporated into transport arrangements for ANE and ANS:

- As required by state legislation, all vehicles carrying ANE and ANS are licensed by the relevant body, which in NSW is the Environment Protection Authority (EPA). The licensing process requires that the tank component of the vehicle be constructed in accordance with an approved design and that the tank comply with the requirements of the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code).
- Activities such as maintenance and pre-start checks are undertaken in accordance with manufacturer requirements and the National Heavy Vehicle Accreditation Scheme requirements.

4.3 Driver Training, Education, and Licensing

All drivers who carry Dangerous Goods are required to be licensed by state regulatory agencies, in NSW the EPA is the responsible agency. To obtain a licence, drivers must complete an accredited training course, complete a medical and meet the driving history requirements.

In addition, Orica requires that drivers complete specific training including information on Orica's Safety Management Systems, information on the products being transported and the controls in place to ensure safe transport of the product.

4.4 Route Risk Analysis

Route risk analysis is undertaken by the transport contractor in accordance with the following documents;

- AS/NZS 4360:2004 Risk Management Standard
- Australian Code for the Transport of Dangerous Goods by Road and Rail

Issues considered in the transport route risk analysis include the physical conditions experienced along the route, the impact of changing conditions and other factors such as speed and fatigue (Table 4.1).

Table 4.1 Route Risk Analysis

Physical Conditions	Changing Conditions	Other Issues
Restricted View – especially at intersections and 'blind corners'	Oncoming traffic – known passing areas	Speed – yours and other traffic on the road
Roundabouts – size, location, condition, alternative route to avoid these	Other heavy vehicle movement	Fatigue Management
Pedestrian Crossings and islands	School and public bus route	First time travel on the route
Intersections and concealed roadways	Congestion	Emergency Response Procedure in place
Bridges – esp. if small or one way	Road works – scheduled and unscheduled	Safety Management Plan in place
Roadway shoulders / known pull over areas	Detours – scheduled and unscheduled	Media reports – cultural events, sporting events, protest action, political activity
Concealed crest, sharp curves, poor camber	Weather – rain, high wind areas	Maintain communication with base
Over / Underpass clearance	Known flood areas	
Rail crossings	Livestock / farm areas	
Floodways, culverts, water courses	Bush fires – usually seasonal	
Overtaking lanes	Transport Vehicle fire	

Physical Conditions	Changing Conditions	Other Issues
Designated rest areas and Road house locations		
Recreational areas and Industrial areas		
Locations of Protected Works A & B type areas		

The outcome of the transport risk analysis is incorporated into the driver training for the route being travelled.

An example risk assessment prepared by the transporter (Toll Mining Services) is contained in APPENDIX B.

4.5 Emergency Plans

All drivers undergo emergency response training for incidents such as vehicle accidents or vehicle fires. The training includes:

Mitigation measures in the event of a vehicle fire, such as battery isolation and extinguishing of fires;

Measures to ensure the safety of the public, including, in the event of a large fire the implementation of an exclusion zone around the vehicle.

Activation of the Orica Emergency Response Systems to assist in the management of the incident. The general public are also able to activate the Orica Emergency Response System, with the contact details for the co-ordinating group detailed on the vehicle Dangerous Goods placarding.

Each vehicle carries an Emergency Procedure Guide which summarises the actions to be undertaken in the event of a vehicle fire and also a guide for each type of product being carried (i.e. ANS or ANE).

5 CONCLUSIONS AND RECOMMENDATIONS

Given the existing regulatory requirements, Orica's internal requirements, the nature of the roads to be used, and the engineering controls in place in relation to tanker design, no additional recommendations have been identified in relation to managing the hazards of ANE or ANS during transport to or from the Technology Centre site.

APPENDIX A: HAZARD IDENTIFICATION WORD DIAGRAM

Event	Cause/Comments	Prevention Controls	Possible Consequences	Mitigation Controls
Decomposition of contaminated load resulting in explosion en-route	1. Contamination occurs during manufacture of ANE or ANS	Manufacturing process quality control	Decomposition and explosion en-route. Potential fatality for driver and other road users	With warning event. 1. Driver training 2. Emergency response procedures define evacuation distance
	2. Tanker is contaminated	1. Dedicated tankers 2. Tanker maintenance programme		
Vehicle fire engulfs load resulting in decomposition, confinement of gases and explosion	1. Tyre fire, ignited by binding brakes, faulty bearings, deflated tyres	1. Vehicle maintenance programme 2. Pre-use vehicle checks 3. Driver competence	Fire engulfs load. Decomposition and explosion. Potential fatality for driver and other road users	With warning event 1. Purpose built ANS and ANE tankers designed with emergency venting capacity based on experimentally measured vapour generation in a decomp event (Ref: Orica document BULK DISTRIBUTION TANKERS FOR EMULSION PHASE AND OXIDISER LIQUORS 9/98) 2. No combustible / flammables in load area. Diesel with prime mover only. 3. Driver training 4. Emergency response procedures define evacuation distance
	2. Electrical / mechanical fault / driver smoking etc resulting in cabin or engine fire	1. Vehicle maintenance programme 2. Pre-use vehicle checks 3. Driver competence		
	3. Vehicle accident / collision	1. Vehicle maintenance programme 2. Pre-use vehicle checks 3. Driver competence 4. Route risk assessment as per ADG7 conducted by transporter 5. Well signed road, approved B double route 6. Daylight transport operation as far as practicable		

APPENDIX B: EXAMPLE ROUTE RISK ASSESSMENT BY TRANSPORTER

Risk Assessment Report

What was assessed:			
Transport of Ammonium Nitrate Solution (ANS) from Orica Manufacturing facility Kooragang Island to Orica Technology Centre Ammonium Nitrate Emulsion (ANE) Facility site via road. Product is carried in B-double and single semi trailers.			
Area in which assessment was conducted:			
Distribution Operations by Toll Resources			
Date of assessment:	28/05/09	Date to be reviewed:	28/05/10
	Assessment Team	Position	
Lead Assessor	Michael Bonadio	Compliance Manager – Supply Chain, OMS	
Assessor	Paul McGrath	SSDS Security and Compliance Manager Toll Resources NSW	
Assessor	Paul Nicou	Compliance Officer	
Special notes			

Areas Assessed:
1. Egress from OMS facility at Kooragang Island 2. Route via New England Highway, John Renshaw Drive and George Booth Drive to Orica Technology Centre, Richmond Vale. 3. Right hand turn into Echidna Drive, Orica's Technology Centre entrance 4. Alert security for access

Job Safety Environment Risk Assessment

1 PURPOSE

Risk assessment aids in the control of safety associated with the transportation of product by road to customer sites located throughout Australia. The performance of a risk assessment is mandatory in order to protect:

- Our customers
- Our employees and contracted carriers
- Our shareholders
- The community
- The environment

The purpose of this procedure is to document the OMS processes for performing a risk assessment and implementing controls for the road transport of OMS product from manufacturing and storage facilities within Australia.

2 SCOPE

The risk assessment process forms part of our structured approach to managing risk. It includes the identification, analysis and evaluation of risks, and also incorporates the first stage of controls on how to mitigate the risks.

Formal risk assessments will be performed for:

- Transportation of product within Australian

3 REFERENCES

- AS/NZS 4360:2004 Risk management standard
- AS/NZS 2187.1 Explosives – Storage, Transport & Use
- Australian Code for the Transport of Dangerous Goods by Road & Rail - 7th Edition

4 RESPONSIBILITY

Logistics Manager	• Overall responsibility
Compliance Manager	• Setting Master assessments
Distribution Officer	• Performing assessments when delegated to do so

5 ACTION / METHOD

Making assessment

A new **Risk Assessment** form will be created for each transport route.

Communication

Risk assessment results will be communicated to the carrier/s involved with the physical transportation of product, the applicable Account Manager associated with the customer and the business management team.

Matrix values

In order to assess severity, consequence or risk level, a clear understanding of the accepted meanings is needed. The following tables are provided for guidance:

- **Risk Assessment Matrix**

MP-SG-030B - SH&E RISK MANAGEMENT - APPENDIX C: QUALITATIVE RISK TABLES

- **RISK APPLICATION:**

Job Safety & Environment Risk Analysis (JSERA) applications refer to the following risk matrix and probability of occurrence descriptors.

- **Job Safety & Environment Risk Analysis:**

The following simplification of the Orica Risk Matrix is intended to facilitate the application of risk assessment in Job Safety & Environment Risk Analysis (JSERA) applications. It is consistent with MP-SG-033⁽²⁾.

Table 1: SH&E Category Issues for Job Safety & Environment Risk Analysis

Consequence Categories	Notable Event Cat 1	Significant Event Cat 2	Highly Significant Cat 3.1	Serious Event MHF Cat 3.2	Extremely Serious MHF Cat 4.1	Catastrophic Event MHF Cat 4.2
SAFETY & HEALTH	1 Minor Injury, First Aid	Single MTI	Single LWC or Multiple MTI	Permanent Disability; Multiple LWC	Single Fatality	Multiple Fatalities
ENVIRONMENT	Very minor pollution	Minor local pollution	Evident pollution local concern	Significant local pollution	Major local pollution	Extremely severe pollution

Table 2: Job Safety & Environment Risk Analysis Risk Matrix

Likelihood of Occurrence	Notable Event Cat 1	Significant Event Cat 2	Highly Significant Cat 3.1	Serious Event MHF Cat 3.2	Extremely Serious MHF Cat 4.1	Catastrophic Event MHF Cat 4.2
[A] Almost Certain	Level II	Level II	Level I	Level I	Level I	Level I
[B] Very Likely	Level III	Level II	Level II	Level I	Level I	Level I
[C] Possible (Likely)	Level III	Level III	Level II	Level II	Level I	Level I
[D] Unlikely	Level IV	Level IV	Level III	Level III	Level II	Level I
[E] Very Unlikely	Level IV	Level IV	Level IV	Level IV	Level III	Level II
[F] Extremely Unlikely	Level IV	Level IV	Level IV	Level IV	Level IV	Level III

Table 3: Event Likelihood of Occurrence Descriptors for Job Safety & Environment Risk Analysis

For Use in JSERA	Example or detailed description
Descriptor	Description
A. Almost Certain	It is expected to occur in most circumstances
B. Very Likely	Has occurred in some circumstances (known to have happened)
C. Possible (Likely)	Might have occurred at some time but details not known
D. Unlikely	Could occur here at some time but has not as yet happened
E. Very Unlikely	Has occurred somewhere (heard of it happening)
F. Extremely Unlikely	Could theoretically occur but not aware of any instances
	• NOTE: Range of descriptors used should reflect the needs of the activity under review. • Almost certain would mean at least once per year i.e. a common event. • Extremely Unlikely would be used where the event is virtually impossible.

Table 4: Risk Level Descriptors for Job Safety & Environment Risk Analysis

For Use in JSERA	Interpretation and detailed description of Risk Level
Risk Level 1	Unacceptable risk. Job should not proceed without resolving this risk issue, for example by adding more risk controls or substituting existing controls with more effective ones.
Risk Level II	Risk may tolerable where further risk reduction is not practicable. Take action to reduce risk where possible.
Risk Level III	Acceptable level of risk where further risk reduction is not practicable. Review risk on subsequent jobs to determine whether further action is appropriate.
Risk Level IV	Generally considered to be a trivial risk. Further risk reduction should always be considered but may not be practicable.

Table 5: Suggested issues to consider / address in the Risk Assessment

○ Physical Conditions	○ Changing Conditions	○ Other Issues
Restricted View – especially at intersections and 'blind corners'	Oncoming traffic – known passing areas	Speed – yours and other traffic on the road
Roundabouts – size, location, condition, alternative route to avoid these	Other heavy vehicle movement	Fatigue Management
Cross Walks and Pedestrian islands	School and public bus route	First time travel on the route
Intersections and concealed roadways	Congestion	Emergency Response Procedure in place
Bridges – esp. if small or one way	Road works – scheduled and unscheduled	Safety Management Plan in place
Roadway shoulders / known pull over areas	Detours – scheduled and unscheduled	Media reports – cultural events, sporting events, protest action, political activity
Concealed crest, sharp curves, poor camber	Weather – rain, high wind areas	Maintain communication with base
Over / Underpass clearance	Known flood areas	
Rail crossings	Livestock / farm areas	
Floodways, culverts, water courses	Bush fires – usually seasonal	
Overtaking lanes	Transport Vehicle fire	
Designated rest areas & Road house locations		
Recreational areas & Industrial areas		
Locations of Protected Works A & B type areas		

Table 6: JSERA

○ Risk Action Plan			
Task Steps	Hazard & Effect	Controls	Additional Controls / Comments
1. Egress from Kooragang Island Left turn out of KI onto Greenleaf Road Vehicle travels along Cormorant Drive, which become Tourle Street and across the Tourle St bridge. Right turn onto Industrial Drive then onto the Maitland Road (Pacific Highway) Follow onto the New England Highway at Hexham	Vehicle not to standard may result in vehicle accident and personal injury Poor vehicle selection / maintenance could result in LOC and / or personal injury Poor roadway conditions may contribute to an accident resulting in personal injury Interaction with other traffic causing property damage or personal injury	Conduct daily Spot Checks at KI weighbridge Vehicles and equipment purpose built for task and approved load restraints used Contracted carrier / sub-contractor management program in place Visibility is good coming out of weighbridge gate, deliveries occur during day time hours Driver behaviour, training and experience continually assessed All drivers are DG safety awareness trained Driving to conditions on known heavy vehicle route Movement effected in daylight hours where at all possible Vehicles fitted with GPS tracking system and duress button	Contractor Safety Management Plan in place Communication with drivers maintained at all times Drivers stay with their vehicles at all times Carrier audited at regular intervals Well signed road, well maintained road

		Scheduled travel times to minimise road user interaction	
Movement along the Route			
Task Steps	Hazard & Effect	Controls	Additional Controls / Comments
2. Route via New England Highway, John Renshaw Drive and George Booth Drive to Echidna Dr at Orica Technology Centre site Merge left at John Renshaw Dr interchange continuing onto John Renshaw Drive to F3 round about. Cross the roundabout continuing along John Renshaw Drive toward Kurri Kurri for approximately 9KM. Left turn onto George Booth Drive. (100 meters after the Buchanan Rd intersection on right hand side.) Intersection is moderately sharp and although a turning lane exists long vehicles will require the use of the left lane.	Heavy traffic congestion at F3 round about during various and unpredictable times. F3 round about at the bottom of a moderately steep hill requiring additional breaking effort. Poor road conditions could result in damage to property and personal injury Delays or diversions due to road works possibly through built up or congested areas increased risk of incident or accident in unfamiliar area Interaction with other traffic causing property damage or personal injury Light vehicle passing on left using turning lane. Risk of vehicle rollover if speed is not sufficiently reduced.	Driving to conditions Well signed road, Well maintained road Known heavy vehicle route Movement effected in daylight hours where at all possible Diversion from designated route only permitted under instruction from Police, Emergency services or DG supervisor Communication maintained with other vehicles Vehicles fitted with GPS tracking system and duress button Carrier maintenance regimes New England Highway, John Renshaw Dr and George Booth Dr	Maintain auditing programs Contracted carrier / sub-contractor management program in place Safety Management Plan in Place Toll has a dedicated VHF channel for communication to the transport vehicles Transport vehicles do not make fuel stops during this route Alternative route must be communicated to DG supervisor and any concern addressed before proceeding Scheduled travel times to minimise road user interaction Emergency information and procedures folder carried in all vehicles

	Vehicle suffers mechanical failure resulting in vehicle being stopped along the roadway Emergency situation resulting in Exposure to Protected Works A or Protected Works B which might pose a threat to the public or public property	are well maintained roadways and well known to drivers Emergency Response Plan in place and well understood by the driver	
Movement along the Route (ctd.)			
Task Steps	Hazard & Effect	Controls	Additional Controls / Comments
3. Approach Orica Technology Centre entrance on Echidna Dr. approximately 5Km from George Booth Drive. Right hand turn into Orica Kurri Kurri entrance, approach gate and alert reception/security of your arrival. (Follow directions given by Orica personnel or security personnel at all times.)	Interaction with other traffic causing property damage or personal injury Intersection is soon after slight RH bend and requires turning across oncoming traffic. Poor road conditions could result in damage to property and personal injury Emergency situation resulting in Exposure to Protected Works A or Protected Works B which might pose a threat to the public or public property Vehicle suffers mechanical failure resulting in vehicle being stopped along the roadway	Movement effected in daylight hours where at all possible Scheduled travel times to minimise road user interaction Driving to conditions reduced speed through industrial area, poor road conditions and moderate traffic flow through Racecourse Rd UHF radio's fitted to all trucks for communication with trucks in close proximity Well signed road, Well maintained road Known heavy vehicle route	Maintain auditing programs Contracted carrier / sub-contractor management program in place Safety Management Plan in Place Dedicated VHF channel for communication to the transport vehicles Carrier audited at regular intervals Vehicle fitted with security seals preventing load tampering or theft.

	Theft – loss of product	Emergency Response Plan in place and well understood by the driver Safety Management plan in place Vehicles fitted with GPS tracking system and duress button No need for driver to leave truck unattended during trip, loaded and unloaded in secure areas	
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Security on the Public Roadway			
Task Steps	Hazard & Effect	Controls	Additional Controls / Comments
4. Security	Theft – loss of product	Well signed road Good, well maintained road Speed signs provided Carrier maintenance regimes Container approved for use on road and rail by Competent Authority Driving to conditions Known heavy vehicle route Solid product only carried	Maintain auditing programs Contracted carrier sub-contractor management program Driver behaviour training and follow up Vehicles fitted with GPS tracking system and duress button Scheduled travel times to minimise road user interaction Movement effected in daylight hours where at all possible

		Driver stays with vehicle at all times Vehicles fitted with GPS tracking system and duress button <i>Emergency Response Plan in place and known to drivers</i>	Safety Management plan in place Dedicated VHF channel for communication to the transport vehicles
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REPORT SUMMARY:

The route is a well-travelled roadway and is well known to the transport vehicle drivers. The distance allows the vehicle to complete the return journey without the need for a fuel stop. All vehicles are fitted with GPS equipment and a contractor dedicated VHF channel to maintain communication and control over vehicle movement.

There are a number of small schools, residential areas, small businesses and small to medium sized industrial operations that must be manoeuvred around during travel to complete the route safely. The condition of the roadway, traffic controls in place and the controls on the vehicles allow for the route to be travelled safely.

It is considered that the existing controls are appropriate and adequate to ensure the risks are managed in a safe and professional manner.

Sign off Record

Record of participants in the original JSERA					
Participants:					
Name	Signature	Date	Name	Signature	Date

Record of others who have read the JSERA					
Communications Log:					
Name	Signature	Date	Name	Signature	Date

