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INTERNATIONAL CYANIDE MANAGEMENT CODE CYANIDE

Orica Australia Limited Latin America Supply Chain Certification Audit, Summary Audit Report

Submitted to:

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REPORT

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1.0 INTRODUCTION

1.1 Operational Information

Name of Transportation Facility:	Orica Latin America Supply Chain
Name of Facility Owner:	Not Applicable
Name of Facility Operator:	Orica Australia Ltd
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1.2 Description of Operation

1.2.1 Orica Australia Limited

Orica is an Australian-owned, publicly listed company with global operations. Orica is managed as discrete business units that produce a wide variety of products and services. The Mining Chemicals unit is based in Australia and exports products to Asia, Africa and the Americas, as well as supplying the local Australian industry. This unit's main product is sodium cyanide (cyanide), which is manufactured at Orica's Yarwun cyanide production facility (Yarwun Facility) in Queensland, Australia. Orica Mining Chemicals is the world's second largest producer of cyanide.

Orica's Yarwun Facility, which is located at Yarwun approximately eight kilometres (km) by road from Gladstone, Queensland, commenced operations in 1989 and is engaged in the manufacture of cyanide (both solid and liquid forms), ammonium nitrate, nitric acid, chlorine, sodium hydroxide, sodium hypochlorite, hydrochloric acid and expanded polystyrene balls.

Solid cyanide is packaged in either sparge isocontainers, which have a maximum gross weight of 26 tonnes, or intermediate bulk containers (IBCs), which are in turn packed into a container. A maximum of 20 IBCs can be packed into a freight container with a maximum gross weight of 28 tonnes. Liquid cyanide is packaged into isocontainers with a maximum gross weight of 26 tonnes.

Cyanide manufactured at the Yarwun Facility is used in gold mining operations within Australia, Asia, Africa, Papua New Guinea, New Zealand and South America.

1.2.1.1 Yarwun

Orica's Yarwun Facility, which is located at Yarwun approximately eight kilometres (km) by road from Gladstone, Queensland, commenced operations in 1989 and is engaged in the manufacture of cyanide (both solid and liquid forms), ammonium nitrate, nitric acid, chlorine, sodium hydroxide, sodium hypochlorite, hydrochloric acid and expanded polystyrene balls.

Solid cyanide is packaged in either sparge isocontainers, which have a maximum gross weight of 26 tonnes, or intermediate bulk containers (IBCs), which are in turn packed into a container. A maximum of 20 IBCs can be packed into a freight container with a maximum gross weight of 28 tonnes. Liquid cyanide is packaged into isocontainers with a maximum gross weight of 26 tonnes.



Cyanide manufactured at the Yarwun Facility is used in gold mining operations within Australia, Asia, Africa, Papua New Guinea, New Zealand and South America.

Orica's Yarwun Facility was re-certified as being in full compliance with the Code on 17 March 2010.

1.2.1.2 Ventanilla Transfer Facility

Solid manufactured at the Yarwun Facility and destined for the Latin America Supply Chain is only packaged in intermediate bulk containers (IBCs), which are in turn packed into a container. The Ventanilla Bag to Bulk Transfer Facility (Transfer Facility) is used by Orica to repackage cyanide from IBCs into sparge isocontainers. At the time of the audit, only Minera Yanacoocha in Peru utilised Orica cyanide transported within sparge isocontainers.

Orica's Ventanilla Bag to Bulk Transfer Facility was certified as being fully compliant with the Code on 7 August 2008.

1.2.2 Marine Transportation

The Orica Latin America Supply Chain from the Port of Brisbane, Queensland, to the various end point users covers the transportation of solid sodium cyanide by ship from the Port of Brisbane to the Ports of Callao, Buenos Aires, Puerto Deseado and Santos, South America, and then road transportation to end point users. The Orica Latin America Supply Chain includes:

- Marine transportation of solid cyanide from the Port of Brisbane, Queensland, to the Ports of Callao, Buenos Aires, Puerto Deseado and Santos by Maersk Australia Pty Ltd (Maersk) and Hamburg SUD Group (Hamburg SUD)
- Transportation of solid cyanide to the Ports of:
 - Callao, Peru
 - Buenos Aires, Argentina
 - Puerto Deseado, Argentina
 - Santos, Brazil.
- Transportation of solid sodium cyanide by road in:
 - Argentina
 - Brazil
 - Venezuela.
- Transportation of solid sodium cyanide in Peru by road to Orica's production facility in Ventanilla
- Transportation of solid sodium cyanide by road to end point users in Peru and Chile.
- Road transportation of solid cyanide (intermediate bulk containers (IBCs) within freight containers by Transaltisa S.A. (Transaltisa), Stiglich Transportes S.A. (Stiglich) and Victor Mason Cruz del Sur Transportes (Cruz del Sur) from the Ports to end point users.

1.2.2.1 Maersk Australia Pty Ltd

Maersk, headquartered in Geneva, Switzerland, operates a fleet of containers vessels with worldwide shipping coverage. The fleet consists of more than 500 container vessels with the capacity to handle more than 1,900,000 20 foot containers. Maersk operates a container booking and tracking system called the Global Customer Service System (GCSS). The system is also the management tool for handling the dangerous goods cargo for the proper control of the stowage of hazardous cargo.



All of Maersk's vessels are registered by the Lloyd's Register Group, which provides classification and certification of ships, and inspects and approves important components and accessories. This registration is a requirement of the Australian Customs Act.

Maersk has provided shipping services to AGR since AGR commenced the export of solid sodium cyanide in 2002. Shipping destinations included various interstate and international ports.

1.2.2.2 *Hamburg SUD Group*

Hamburg SUD is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers containing solid sodium cyanide are placed and secured on their vessels at the loading port (Port of Brisbane) by the stevedoring company and removed at the port of destination by the stevedoring company at that port.

An export or international route will include the following:

- Orica production, packaging and despatch
- Road and rail transportation to port
- International shipping to destination port
- Road transportation to customer (mining operation).

Orica uses Hamburg SUD for its international shipping to South American ports due to its selection of services available and its regular shipping schedule from Brisbane.

1.2.3 **Ports**

1.2.3.1 *Port of Callao, Peru*

The Port of Callao is the largest port in Peru and is where all solid sodium cyanide from Orica Mining Chemicals enters for the Peruvian market place.

The Port of Callao is protected by two artificial breakwaters. The northern breakwater is approximately 2,100 metres in length and the southern breakwater is approximately 1,000 metres in length. The opening between the two breakwaters is about 150 metres in width. Pilots board vessels about one mile off the port entrance. The port has a good approach and navigation aids. There is a "traffic separation scheme" which is well marked on navigation charts. The San Lorenzo lighthouse is an excellent landmark in the area. The access channel is well marked by sea buoys and lights on each breakwater.

Orica uses two major shipping lines (Hamburg SUD and Maersk) to transport its shipments to the Port of Callao in Peru.

The "Terminal Portuario Callao" TPC is owned and operated by "Empresa Nacional de Puertos" ENAPU S.A. (a state company). There are 11 Piers with a total of 21 berths for grains, general, bagged and liquid cargoes; lubricating oils; discharge of crude oil, clean products, propane gas, chemicals and water; passengers, and; merchant/fishing ships and small fishing vessels. There are also three sheds used for imported goods and seven open storage zones.

Callao anchorage allows all types of vessels. On entering a 20 mile circle of San Lorenzo lighthouse, all vessels contact the Port Control Centre (TRAMAR CALLAO) on channel 16/13 VHF, requesting the exact anchoring position and any further instructions.

The Port of Callao Harbour Master oversees all port operations. This includes:

- Management of port protocols for vessel docking
- Entry to port by Port Pilots
- Vessel approaches



- Shipping activities to port activities changeover.

Stevedoring operations include:

- Handling of full/empty containers on and off vessels, container storage areas for general cargo, port security, etc
- Management programs for container placement and movement including identification of hazardous cargoes.

1.2.3.2 Port of Buenos Aires, Argentina

The Port of Buenos Aires is located in Puerto Nuevo, Buenos Aires in Argentina and holds the concession of port operations until October 2019. It has an operative area of 430,000 square metres completely adapted and redesigned with a storing capacity of 831,000 TUE/year.

It was formed by DP World, Latin America Infrastructure Fund and other international partners. DP World is responsible for the terminal management and is one of the main port operators worldwide with 45 container terminals in 29 countries.

Orica uses two major shipping lines (Hamburg SUD and Maersk) to transport its shipments to the Port of Buenos Aires.

1.2.3.3 Port of Puerto Deseado, Argentina

The Port Authority of Puerto Deseado is the controlling authority for the Port of Deseado in Argentina. The port is situated within a natural coastal harbour.

The Port of Puerto Deseado Harbour Master oversees all port operations. This includes:

- management of port protocols for vessel docking
- entry to port by Port Pilots
- vessel approaches to the port
- shipping activities to port activities changeover.

Stevedoring operations include:

- Handling of full/empty containers on and off vessels, container storage areas for general cargo, port security, etc
- Management programs for container placement and movement including identification of hazardous cargoes.

1.2.3.4 Port of Santos, Brazil

The Port of Santos in Brazil is used for Orica's importation into Brazil due to its location in regards to the end use destination and the facilities available.

The harbor is formed on the east by the island of Santo Amaro and on the west by the island of Sao Vicente. In calm and completely protected channel and extends from the bar to the 'Macuco Novo' quay.

Orica uses two major shipping lines (Hamburg SUD and Maersk) to transport its shipments to the Port of Buenos Aires.

The Port of Santos Harbour oversees all port operations, including:

- management of port protocols for vessel docking
- entry to port by Port Pilots



- vessel approaches to the port
- shipping activities to port activities changeover.

Stevedoring operations include:

- Handling of full/empty containers on and off vessels, container storage areas for general cargo, port security, etc
- Management programs for container placement and movement including identification of hazardous cargoes.

1.2.4 Road Transportation

1.2.4.1 *Transaltisa S.A*

Transaltisa S.A. (Transaltisa) is a company dedicated to the transport of hazardous materials with operations in Peru. Transaltisa is part of the corporation Cervesur and provides logistics services and is focused in the mining industry and long term contracts. Transaltisa transports sodium cyanide in solid state (pellets) on behalf of Orica from Callao Port to the gold mine Minera Yanacocha, located in Cajamarca Peru.

Transaltisa formally implemented the Cyanide Code in September 2009 and has incorporated the Code in its integrated management system.

Transaltisa was certified as being fully compliant with the Code on 17 February 2010.

1.2.4.2 *Stiglich Transportes S.A*

Stiglich Transportes S.A. (Stiglich) is a company specialised in the transport of hazardous materials and oversized loads. It provides sodium cyanide transportation services for Orica the gold mine Minera Yanacocha.

Stiglich receives cyanide directly in the port or storage facilities. The cyanide can be transported in iso-tanks or standard IBC containers. Stiglich does not have storage facilities and does not remove the product from the tanks.

Stiglich was certified as being fully compliant with the Code on 27 May 2010.

1.2.4.3 *Victor Mason Transportes Cruz del Sur*

Victor Masson Transportes Cruz del Sur S.A. (Cruz el Sur) is a sodium cyanide transporter in Argentina. Currently, Cruz del Sur transports Orica's cyanide to the Gualcamayo and Veladero mines located in western Argentina.

Cruz del Sur receives the cyanide at the Buenos Aires Port. Their responsibility begins when the Port Authority releases the container by placing it on a Cruz del Sur platform. The cyanide is transported directly to the mine, without the intervention of secondary storage facilities.

Cruz del Sur was certified as being fully compliant with the Code on 9 December 2010.

1.2.5 Transit Storage

Storage in transit does occur at Ports identified in Section 1.2.3 while formalities such as customs clearance and carrier releases are performed. Once formalities are complete, the cyanide containers are collected by the respective road transporters. At no stage along the Latin America Supply Chain, with the exception of Orica's Ventanilla Transfer Facility, is cyanide removed from the containers prior to unloading at customer mine sites. Unloading, storage and repackaging at the Ventanilla Transfer Facility was addressed independently as part of the Code Verification audit of that facility.

Depending on weather, cargo types and other operational matters, shipping lines may tranship their cargo from one vessel to another. This involves unloading the cargo at a terminal facility, temporary set down and loading onto another vessel for the continuation of the delivery. Such trans-shipping does occur with Orica's



sodium cyanide. Orica has no control over when and where this happens, but through its due diligence investigations has satisfied itself that the shipping lines used (Maersk and Hamburg) undertake the shipping of the product in accordance with the *International Maritime Dangerous Goods Code* (IMO DG Code) and in a professional manner. This extends to the selection of terminals for trans-shipping.

Trans-shipping port used include:

- SUD:
 - Port of Singapore.
- Maersk:
 - Port of Singapore.



1.3 Auditors Findings and Attestation

in full compliance with

Orica Latin America Supply Chain is:

in substantial compliance with

The International Cyanide Management Code

not in compliance with

Audit Company: Golder Associates

Audit Team Leader: Edward Clerk, CEnvP (112), RABQSA (020778)

Email: eclerk@golder.com.au

1.4 Name and Signatures of Other Auditors:

Name	Position	Signature	Date
Edward Clerk	Lead Auditor and Technical Specialist		
Susan Regan	Trainee Auditor		

1.5 Dates of Audit

The Orica Latin America Supply Chain Certification Audit was undertaken on 3-4 February 2011 based on the following due diligence reports:

- Due diligence review the Port of Callao. The due diligence was undertaken by Orica on 17 November 2010.
- Due diligence review the Port of Buenos Aires. The due diligence was undertaken by Orica on 3 March 2010.
- Due diligence review the Port of Deseado. The due diligence was undertaken by Orica on 7 October 2010
- Due diligence review the Port of Santos. The due diligence was undertaken by Orica on 19 September 2010.
- Due diligence review Maersk Australia Pty Ltd. The due diligence was undertaken by Orica on 14 October 2010
- Due diligence review Hamburg SUD Group. The due diligence was undertaken by Orica on 7 July 2010.

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that all members of the audit team meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

I attest that this Summary Audit Report accurately describes the findings of the verification audit. I further attest that the verification audit was conducted in a professional manner in accordance with the *International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations* and using standard and accepted practices for health, safety and environmental audits.



2.0 CONSIGNOR SUMMARY

2.1 Principle 1 – Transport

Transport Cyanide in a manner that minimises the potential for accidents and releases.

2.1.1 Transport Practice 1.1

Select cyanide transport routes to minimise the potential for accidents and releases.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 1.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 1.1 requiring the transport of cyanide in a manner that minimises the potential for accidents and releases.

Orica

Orica has developed procedures to guide the selection of transport routes to minimise the potential for accidents and releases, or the potential impacts of accidents and releases.

Routes are selected by Orica's SH&E Distribution Risk Manager in consultation with Orica's transport contractors and customers. The evaluation and selection of the route(s) is undertaken through a risk assessment process conducted in accordance with Australian Standard AS 4360: 2004 Risk Management. Risk assessments are undertaken for all route alternatives selected for assessment. Additionally, route risk assessments are also undertaken for product loading and departure, product storage, and product unloading and delivery. Mitigation measures used to reduce risks to acceptable levels were detailed in the risk assessment documentation for the specific routes.

Orica has implemented a procedure to periodically re-evaluate routes used for cyanide deliveries. The SH&E Distribution Risk Manager advised that the re-evaluation of routes used for cyanide deliveries is undertaken by Orica staff approximately every 18 to 24 months.

SOP TMP 02 Transport Routes – Route Conditions and Transportation Agency Feedback procedure was developed by Orica to ensure that relevant feedback from transportation agencies relating to routes utilised for the movement of cyanide is provided to Orica for assessment and follow up on actions, as appropriate. This procedure is referred to in the *Sodium Cyanide Transport Management Plan*.

Orica has documented the measures taken to address risks identified with the selected routes and developed procedures to evaluate the risks of selected cyanide transport routes and take the measures necessary to manage these risks. Mitigation measures are then detailed in the risk assessment documentation of the transport contractor.

Orica, in conjunction with its road transport contractor, seeks input from stakeholders and applicable governmental agencies as necessary in the selection of routes and development of risk management measures.

Where routes present special safety or security concerns, Orica ensures the transport contractor uses convoys, escorts or other additional safety or security measures to address the concern. Latin America is assessed by Orica as having a risk rating of Level II and all containers are transported under escorted convoy conditions. Security measures implemented by Orica for transportation of cyanide within the Latin America Supply Chain include the use of locked and sealed containers, and constant monitoring and reporting of the progress of the convoy by the transport contractors.

Orica, through its transport contractor, has advised external responders, medical facilities and communities as necessary of their roles during an emergency response.



Orica's *Sodium Cyanide Transport Management Plan* notes that emergency response responsibility will extend only to aspects of supply to which Orica is contractually responsible, however, Orica will work with all customers and assist where possible in maintaining an emergency response plan and provide specialist advice in the event of any emergency. The *Sodium Cyanide Transport Management Plan* also notes that agents, distributors and transport companies shall have an appropriate emergency response plan for handling any sodium cyanide incident that falls within their contractual responsibility. The emergency response plan shall address the entire delivery route.

Orica's *Sodium Cyanide Transport Management Plan* states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the *International Cyanide Management Code* and contracts between Orica Mining Chemicals and these parties shall incorporate the obligations of each party in meeting the Code's requirements.

Where subcontractors are utilised by contracted carriers, the Orica *Sodium Cyanide Transport Management Plan* notes that no subcontractors are to be engaged by any prime contractor without the prior approval of Orica and an appropriate assessment of the proposed subcontractor's capabilities having been performed. The assessment of transportation agencies is via the Orica *Mining Chemicals – Carrier Assessment Questionnaire (SOP TMP 16)*, which enables a self assessment and external assessment. The assessment sheet includes two parts. Part 1 details a protocol covering the following:

- Company Profile
- Safety, Health and Environment (SH&E)
- Fleet Operations
- Depot Operations
- Compliance, Examination and Maintenance of Road Transport Equipment
- Internal Safety Audits, Workplace Observations and Assessments.

Part 2 of the questionnaire contains vehicle and driver safety checklists for the transport of dangerous goods.

A scoring system is included in this assessment process with minimum standards detailed. Orica conduct Carrier Assessments using this process at a minimum of every two years.

In addition to *SOP TMP 16*, it is also a mandatory requirement that the prime contractor have an appropriate *Subcontractor Management Plan* in place which includes regular assessment of subcontractors utilised.

Orica contracts all road transport within the Latin America Supply Chain to Transaltisa, Stiglich and Cruz del Sur. A Transport Contract is maintained with Transaltisa, Stiglich and Cruz del Sur and is signed off by the appropriate management representative.

Maersk and Hamburg SUD

Orica uses Maersk and Hamburg SUD for its international shipping to South America due to its selection of services available from the Port of Brisbane.

Orica does not have control of the routes taken by the shipping lines contracted to transport sodium cyanide. In selecting a route, shipping lines must take into account factors such as tides, currents, winds, storms and load compatibilities.

Due diligence were conducted by Orica of Maersk on 14 October 2010 and of Hamburg SUD on 7 July 2010. The due diligences indicated that the shipping companies transported cyanide in compliance with the Dangerous Goods Code of the International Maritime Organisation.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 1.1.



2.1.2 Transport Practice 1.2

Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

The operation is **in full compliance with** **Transport Practice 1.2**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 1.2 requiring personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.

Orica

Orica does not employ transport drivers or directly operate transport vehicles in its Latin America Supply Chain; this is undertaken by its contractors Transaltisa, Stiglich and Cruz del Sur. Despite this, Orica does ensure its transport contractors and subcontractors use only trained, qualified and licensed operators to operate its transport vehicles.

Orica’s Sodium Cyanide Transport Management Plan states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the Code and contracts between Orica Mining Chemicals and these parties shall incorporate the obligations of each party in meeting the Code’s requirements.

Section 21 to 23 of Orica’s Sodium Cyanide Transport Management Plan clearly describes the minimum training standards expected by Orica in the transportation of cyanide. The document also notes that where subcontractors are utilised by prime contracted agencies, the prime contractor is to have an appropriate procedure to ensure that all relevant subcontractor personnel meet the specified training requirements.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 1.2.



2.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.

The operation is **in full compliance with** **Transport Practice 1.3**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 1.3 requiring that transport equipment is suitable for the cyanide shipment.

Orica

Orica does not directly operate transport vehicles in its Latin America Supply Chain; this is undertaken by Transaltisa, Stiglich and Cruz del Sur.

Orica does ensure that contractors only uses equipment designed and maintained to operate within the loads it will be handling. Orica has developed procedures to verify the adequacy of the equipment for the load it must bear; to prevent overloading of the transport vehicle being used for handling; and, ensures its subcontractors meet elements 1 through 3 of Transport Practice 1.3.

Orica has developed a *Transport of Sodium Cyanide – Carrier Safety Program (SOP TMP 05)* that details the minimum safety requirements and programmes that Orica requires its prime contractor and associated subcontractors to implement.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 1.3.



2.1.4 Transport Practice 1.4

Develop and implement a safety program for transport of cyanide.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 1.4

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 1.4 requiring the operation develop and implement a safety program for transport of cyanide.

Orica

Orica does not directly operate transport vehicles in its Latin America Supply Chain; this is undertaken by Transaltisa, Stiglich and Cruz del Sur. Despite this, Orica does ensure its transport contractors and subcontractor implement a safety program for the transport of cyanide that ensures that cyanide is transported in a manner that maintains the integrity of the producer's packaging.

The Orica's Australia Supply Chain Audit (certified as compliant with the Code on 5 October 2010) and Ventanilla Bag to Bulk Transfer Facility (certified as compliant with the Code on 7 August 2008) addressed items such as cyanide packaging, labelling, container loading and security. The Latin America Supply Chain is a continuation of the Australia Supply Chain and, with the exception of the Ventanilla Transfer Facility, containers are not opened until they arrive at the final destination.

Orica does ensure its transport contractors and subcontractor use placards and signage to identify the shipment as cyanide, as required by local regulations and international standards.

Orica ensures that its transport contractors and subcontractors implement safety programmes for cyanide transport. Section 32 of Orica's *Sodium Cyanide Transport Management Plan* states that agents, distributors and transportation agencies have a responsibility to ensure that a safe workplace is provided for its personnel and that of the contractors utilised. The plan notes that this includes:

Fatigue management is considered in all transportation activities

Loads are secured in the appropriate and safest manner

Procedures are in place by which transportation can be suspended or modified if conditions such as severe weather or civil unrest are encountered

A drug abuse prevention programme (including over the counter medication) is in place

Vehicle inspections are effected prior to each shipment

A preventative maintenance programme is in place

Carrier Safety Programs should be consistent with the requirements of *SOP TMP 05 (Transport of Sodium Cyanide – Carrier Safety Program procedure)*

Orica has developed a procedure to ensure its subcontractors meet elements 1 through 3 of Transport Practice 1.4.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 1.4.



2.1.5 Transport Practice 1.5

Follow international standards for transportation of cyanide by sea and air.

The operation is in full compliance with **Transport Practice 1.5**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 1.5 requiring the operation follow international standards for transportation of cyanide by sea and air.

Orica

Orica does transport consignments of cyanide by sea within the scope of this audit. As identified during the Orica Australia Supply Chain certification audit, all containers (i.e. freight containers of IBCs, sparge isocontainers or liquid isocontainers) are placarded at the Yarwun Facility in accordance with the requirements of the IMDG Code with UN numbers, the Class 6 dangerous goods class label and the environmentally hazardous substance label. This level of placarding is consistent with the requirements of the ADG Code.

A container intended for sea transport has documentation prepared in accordance with the IMDG code, which is faxed to the shipping agent. The normal road documentation prepared in accordance with the ADG Code accompanies the load on its road/rail voyage to the Port of Brisbane.

Orica does not transport consignments of cyanide by air within the scope of this audit.

Section 37 of Orica's *Sodium Cyanide Transport Management Plan* notes that no sodium cyanide manufactured by Orica Mining Chemicals or manufactured by third parties on behalf of Orica Mining Chemicals will be permitted to be transported by air without express written permission of Orica.

Maersk and Hamburg SUD

Due diligences of Maersk and Hamburg SUD conducted by Orica indicated that the shipping companies transported cyanide in compliance with the Dangerous Goods Code of the International Maritime Organisation. The due diligence specifically referenced provisions of the Dangerous Goods Code that are required to be addressed under this question.

Ports of Callao, Buenos Aires, Puerto Deseado and Santos

Due diligences of the Ports were conducted by Orica in 2010. The due diligences indicated that the ports were in compliance with the Dangerous Goods Code of the International Maritime Organisation. The due diligences specifically referenced provisions of the Dangerous Goods Code that are required to be addressed under this question.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 1.5.



2.1.6 Transport Practice 1.6

Track cyanide shipments to prevent losses during transport.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 1.6

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 1.6 requiring the tracking of cyanide shipments to prevent losses during transport.

Orica

Orica does not employ transport drivers or directly operate transport vehicles; this is undertaken by its contractors Transaltisa, Stiglich and Cruz del Sur. Despite this, Orica does ensure its transport contractor vehicles have means to communicate with the transport company, the mining operation, the cyanide producer or distributor and/or emergency responders.

Orica's *Transportation of Cyanide – Tracking of Shipments (SOP TMP 10)* procedure requires Orica and its contracted transportation agencies to maintain a vehicle tracking system that shall provide:

- Duress notification by the driver
- Visibility to external users to current location of vehicles carrying product
- Download capability relating to each vehicle and each individual trip
- Geo-fencing, if practicable

Orica does ensure contractor communication equipment (GPS, mobile phone, radio, pager, etc) is periodically tested to ensure it functions properly.

Orica does ensure its communication blackout areas along transport routes have been identified and ensure special procedures are implemented for the blackout areas. Orica's *Remote Area Communications* procedure details the requirements for communication when transporting cyanide in areas that are recognised as a communications risk.

Orica does ensure its transport contractor implements systems or procedures to track the progress of cyanide shipments. Orica's *Transportation of Cyanide – Tracking of Shipments* procedure requires Orica and its contracted transportation agencies to maintain a vehicle tracking system.

Orica does implement inventory controls and/or chain of custody documentation to prevent loss of cyanide during shipment. Section 43 of Orica's *Sodium Cyanide Transport Management Plan* requires:

- All packaging to be secured in such a manner so as to prevent ready access to the product contained within, or as a minimum, provide the capability to readily identify that packaging has been tampered with
- In the event that vehicles are required to be left unattended, the requirements of *SOP TMP 07* are to be applied.
- As an integral facet of security during transport, tracking methodologies should be employed. *SOP TMP 10* refers to these methodologies.

Orica does ensure that its transport contractors carry records indicating the amount of cyanide in transit and *Material Safety Data Sheets* are available during transport.



Orica has developed a procedure to ensure its subcontractors meet elements 1 through 6 of Transport Practice 1.6. Where subcontractors are utilised by contracted carriers, the Orica *Sodium Cyanide Transport Management Plan* notes no subcontractors are to be engaged by any prime contractor without the prior approval of Orica and an appropriate assessment of the proposed subcontractor's capabilities having been performed. The assessment of transportation agencies is via the Orica *Mining Chemicals – Carrier Assessment Questionnaire (SOP TMP 16)*, which enables a self assessment and external assessment. The assessment sheet is very detailed and includes two parts.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 1.6.



2.2 Principle 2 – Interim Storage

Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

2.2.1 Transport Practice 2.1

Store cyanide in a manner that minimises the potential for accidental releases.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 2.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 2.1 requiring transporters design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

Orica

Storage in transit does occur at the following Ports while formalities such as customs clearance and carrier releases are performed:

- Port of Callao, Peru
- Port of Buenos Aires, Argentina
- Port of Puerto Deseado, Argentina
- Port of Santos, Brazil.

Storage in transit also occurs at the transshipping port of Singapore.

Depending on weather, cargo types and other operational matters, shipping lines may tranship their cargo from one vessel to another. This involves unloading the cargo at a terminal facility, temporary set down and loading onto another vessel for the continuation of the delivery. Such trans-shipping does occur with Orica's sodium cyanide. Orica has no control over when and where this happens, but through its due diligence investigations has satisfied itself that the shipping lines used (MSC and K-Line) undertake the shipping of the product in accordance with the *International Maritime Dangerous Goods Code* (IMO DG Code) and in a professional manner. This extends to the selection of terminals for trans-shipping.

Ports of Callao, Buenos Aires, Santos and Puerto Deseado

Due diligences of the Ports were conducted by Orica in 2010.

The due diligences assessed interim storage requirements at these facilities and Orica ascertained that the ports are operating in a safe and responsible manner and is suitable for the transit of sodium cyanide.

Maersk and Hamburg SUD

Trans-shipping does occur with Orica's sodium cyanide. Orica has no control over when and where this happens, but through its due diligence investigations has satisfied itself that the shipping lines used (Maersk and Hamburg SUD) undertake the shipping of the product in accordance with the *International Maritime Dangerous Goods Code* (IMO DG Code) and in a professional manner.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 2.1.



2.3 Principle 3 – Emergency Response

Protect communities and the environment through the development of emergency response strategies and capabilities.

2.3.1 Transport Practice 3.1

Prepare detailed Emergency Response Plans for potential cyanide releases.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 3.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 3.1 requiring the operation prepare detailed Emergency Response Plans for potential cyanide releases.

Orica

Orica has developed detailed emergency response document (*Emergency Response Guide Sodium Cyanide*) to provide emergency response guidance for specific mine site, storage facilities and transport incidents involving spillage of Orica product.

The transport companies involved in the shipment of cyanide are required to have plans that cover spill response outside of the Yarwun gate to the end user. Orica provides assistance and support in this role through the *Emergency Response Guide Sodium Cyanide*, 24 hour call centre and product specialists based at the Yarwun Facility.

The *Emergency Response Guide Sodium Cyanide* is appropriate for the selected transportation route or interim storage facility within the supply chain. The objective of the *Emergency Response Guide Sodium Cyanide* is to provide information in a suitable format, which can be used to minimise the adverse effects of a cyanide emergency on people, property and the environment. It is applicable to the management of an emergency involving Orica-supplied sodium cyanide solid or liquid product. It is considered applicable for product spillages at any location along the product supply chain from the Yarwun Facility gate to the mine site end user.

The emergency documentation is appropriate for the transportation routes selected by the transport contractors. The *Emergency Response Guide Sodium Cyanide* is relevant to road transportation within the Latin America Supply Chain.

The *Emergency Response Guide Sodium Cyanide* is applicable to the management of an emergency involving Orica-supplied sodium cyanide solid or liquid product. It is considered applicable for product spillages at any location along the product supply chain. Although the plan does not specifically consider all aspects of the transport infrastructure, the emergency response approach outlined in the *Emergency Response Guide Sodium Cyanide* is flexible enough to accommodate variations in transportation infrastructure.

The *Emergency Response Guide Sodium Cyanide* does consider the design of the transport vehicle and method of packaging of the product. The guide contains procedures for different types of transport containers, freight containers with IBCs and isocontainers.

Section 3.0 of the guide provides response to the following scenarios:

- 3.1 Dry Sodium Cyanide Spill – Inside Building/Storage Facility
- 3.2 Dry Sodium Cyanide Spill – Outside Building/Storage Facility
- 3.3 Dry Sodium Cyanide Spill – Inside a Shipping Container



- 3.4 Shipping Container Decontamination
- 3.5 Handling Wet Sodium Cyanide
- 3.6 Sodium Cyanide Spill to Waterway
- 3.7 Response to a Fire in the Vicinity of Stored Cyanide
- 3.8 Roll-Over of Shipping Container

The *Emergency Response Guide Sodium Cyanide* does include descriptions of response actions for anticipated emergency situations.

The critical component of the emergency response process is the dedicated Orica ERS based in Melbourne. The *Emergency Response Guide Sodium Cyanide* requires Orica ERS to be contacted in the event of an emergency involving cyanide. Orica ERS operates 24 hours a day, seven days a week providing telephone advice and assistance to the public, emergency services and others on incidents relating to the transport, storage and use of chemical products and raw materials in emergency situations.

Appendix 6 (Orica Response to a Report of a Cyanide Incident) of the *Emergency Response Guide Sodium Cyanide* details the initial actions to be undertaken, including the interactions with emergency service providers such as police and fire brigade, determining if the leak is cyanide and preventing the spread of contamination. All emergency responders identified along specific routes, during the route assessment process, are issued with Orica's *Emergency Response Guide*.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 3.1.



2.3.2 Transport Practice 3.2

Designate appropriate response personnel and commit necessary resources for emergency response.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 3.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 3.2 requiring the operation designate appropriate response personnel and commit necessary resources for emergency response.

Orica

Orica does not directly operate transport vehicles or storage facilities along its Latin America Supply Chain.

Orica provides emergency response training of appropriate personnel. Orica retains technical and advisory roles in an emergency and can provide physical resources and personnel to assist emergency services in the response to an incident involving cyanide. To maintain this capacity, Senior Orica ERS personnel or their delegates conduct training of new Orica ERS coordinators, with input from other Orica ERS coordinators and other Orica personnel as required. Initial coordinator training is conducted in accordance with training schedules, with each competency/component in the training program only being signed off by the trainer and trainee once the content is covered thoroughly and adequately to the satisfaction of both parties. For most sections of the training, written or verbal tests or exercises are conducted to ensure that the trainee has the required level of understanding. Independent of the training programme, all new Orica ERS coordinators complete a recognised first aid certificate course (Senior Workplace First Aid), driver awareness course, and internal auditor certification, as soon as practicable after joining the Orica ERS. There is an intensive two week training programme for a new ERS coordinators and cyanide is one of the topics covered under the Industrial Chemicals component of the course.

Orica has developed and provided initial and periodic refresher training covering cyanide awareness and emergency response to its transport contractors.

The *Emergency Response Guide Sodium Cyanide* clearly identifies the key Orica roles and responsibilities in the event of an off-site emergency. Appendix 6 of the guide provides description of the each role. Orica has clearly delineated its role and the responsibilities of the subcontractor during an emergency response.

The *Emergency Response Guide Sodium Cyanide* does not detail emergency response equipment that may be required during an emergency. Appendix 15 of the *Orica Emergency Response Guide Sodium Cyanide* provides guidance on the level of PPE outline by the US EPA but does not specify what should be provided during transport. Section 3.8 of the guide lists the PPE to be provided in the event of a roll-over of a shipping container. The Guide is intended to be used by contractors and provides a point of reference for Orica's contractors to develop and align their emergency management plans.

Orica has developed procedures to inspect emergency response equipment and assure its availability when required. Orica has implemented processes to check that contractors transporting the material have necessary equipment including during transport. Section 2.3 PPE and Section 2.5 Emergency Response of the *SF-016* questionnaire addresses PPE selection, maintenance and supply and emergency response procedures and capabilities

Orica's *Sodium Cyanide Transport Management Plan* states that agents, distributors, transport companies and other parties contracted to Orica shall be responsible for implementing the *International Cyanide Management Code* and contracts between Orica Mining Chemicals and these parties shall incorporate the obligations of each party in meeting the Code's requirements.



Where subcontractors are utilised by contracted carriers, the *Orica Sodium Cyanide Transport Management Plan* notes no subcontractors are to be engaged by any prime contractor without the prior approval of Orica and an appropriate assessment of the proposed subcontractor's capabilities having been performed. The assessment of transportation agencies is via the *Orica Mining Chemicals – Carrier Assessment Questionnaire (SOP TMP 16)*, which enables a self assessment and external assessment. The assessment sheet is very detailed and includes two parts.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 3.2.



2.3.3 Transport Practice 3.3

Develop procedures for internal and external emergency notification and reporting.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 3.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 3.3 requiring the operating develop procedures for internal and external emergency notification and reporting.

Orica

There are procedures and contact information for notifying the shipper, the receiver/consignee, regulatory agencies, outside response providers, medical facilities and potentially affected communities of an emergency. The *Emergency Response Guide Sodium Cyanide* includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the emergency, as appropriate. Receivers/consignees are advised via the Customer Service Centre.

There are provisions to ensure that internal and external emergency notification and reporting procedures are kept current. Orica has a *Model Procedure (MP-SG-020C-Emergency Plans)* detailing the requirement for the development of an effective emergency response system at either a site or business level.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 3.3.



2.3.4 Transport Practice 3.4

Develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

The operation is in full compliance with **Transport Practice 3.4**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 3.4 requiring the operation develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

Orica

The *Emergency Response Guide Sodium Cyanide* includes procedures for remediation, such as recovery or neutralisation of solutions or solids, decontamination of soils or other contaminated media and management of spill clean-up debris. Section 2.5 Decontamination of a Spill of Solid or Liquid Cyanide into Soil and Section 2.6 Use of Sodium Hypochlorite for Decontamination Purposes of the *Emergency Response Guide Sodium Cyanide* provide information on the hazards associated with the recovery and neutralisation.

These procedures include descriptions on decontamination of soils or other contaminated media. The procedures require the responder to notify the relevant parties listed in the Guide. In addition, Document YYA129895043 *Decontamination of Soil Contaminated with Cyanide Liquor* describes the decontamination process and sets out the use of colorimetric test kits to determine that cyanide concentrations are reduced below one part per million.

Document YYA1292702 *Decontamination of Equipment in Cyanide Service* describes the decontamination process for cyanide equipment, requiring that it be treated using hot condensate (> 50°C) and dilute sodium hypochlorite.

The Orica *Emergency Response Guide Sodium Cyanide* provides the following warning in Section 3.6 (Sodium Cyanide Spill in a Waterway) which prohibits the use of chemicals to treat cyanide that has been released into surface water:

Orica Mining Chemicals subscribes to the recommendations of the International Cyanide Management Code in that no chemicals are to be added to a flowing waterway in the event of a cyanide spill as these may only exacerbate the situation with their own toxicity characteristics.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 3.4.



2.3.5 Transport Practice 3.5

Periodically evaluate response procedures and capabilities and revise them as needed.

in full compliance with

The operation is

in substantial compliance with

Transport Practice 3.5

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Orica Latin America Supply Chain is in FULL COMPLIANCE with Transport Practice 3.5 requiring the operation periodically evaluate response procedures and capabilities and revise them as needed.

Orica

Orica does not directly operate transport vehicles or storage facilities along its Latin America Supply Chain.

There are provisions for periodically reviewing and evaluating the plan's adequacy and they are being implemented. Orica has a *Model Procedure (MP-SG-020C-Emergency Plans)* detailing the requirement for the development of an effective emergency response system at either a site or business level.

The *Emergency Response Guide Sodium Cyanide* is a controlled document that is subject to an annual review with the last review in December 2010.

Orica has adopted a consultative approach and work with their transport contractors to undertake exercises and review the emergency plans. The emergency response plan and guide are controlled documents under Orica's document management system and subject to periodic review. Orica has conducted mock emergency drills with Transaltisa, Stiglich and Cruz del Sur.

There is a procedure to evaluate the Plan's performance after its implementation and revise it as needed. The procedure has been implemented. Orica's *Model Procedure MP-SG-045B Corrective and Preventive Action* documents the Orica global procedure for investigation of incidents. All incidents categorised as Category II or above are also reviewed by the division management team for additional leanings, cross business communication requirements and planning purposes.

Transaltisa, Stiglich and Cruz del Sur

Transaltisa, Stiglich and Cruz del Sur are certified with the ICMI and are in FULL COMPLIANCE with Transport Practice 3.5.



3.0 DUE DILLIGENCE

Orica's due diligence process and findings for the shipping carriers and ports is summarised in the following sections.

3.1 Ports

Orica conducted the following due diligence assessments of Ports utilised as part of their Latin America Supply Chain:

- Port of Callao, Peru
- Port of Buenos Aires, Argentina
- Port of Puerto Deseado, Argentina
- Port of Santos, Brazil.

The reviews were conducted by David Ellison, SH&E Distribution Risk Manager at Orica Australia Pty Ltd. David Ellison meets the ICMI requirements for a Transport Expert.

The following items were specifically addressed within the due diligences:

- Transport Practice Element 1.1
- Transport Practice Element 1.5
- Transport Practice Element 1.6
- Transport Practice Element 2.1.

The due diligence assessment consists of a questionnaire that is completed with the operator by a methodology of physical visits, interviews and discussions with appropriate personnel and review of applicable documentation. The assessment is conducted by posing and seeking information to address specific questions to cover the Transport Practice Elements mentioned above. The questions used in the assessment are:

- What is the Port's name?
- What Orica products are transported through this facility?
- What shipping lines are utilised through this Port by Orica Mining Chemicals?
- Does the port have an emergency response plan?
- When was the plan last exercised?
- Does the facility have a separate DG storage area?
- Is the DG storage area compliant with the International Cyanide Management Code Transportation protocols?
- Is DG stored on the wharf at this port?
- Are there emergency services located nearby?
- How is Orica Mining Chemicals product moved to this port?
- Does this Port effect ISPS (SOLAS) Code requirements?



- Contacts:
- Does this port operate a sustainability program?
- Are there any DG limitations imposed at this port?
- Is training conducted as regards DG at this port?
- Are there any sensitive areas in the area where the port exists?

3.1.1 Port of Callao, Peru

Orica conducted a due diligence assessment of the Port of Callao on 17 November 2010.

The due diligence assessment conducted for the Port of Callao found that the port is operating in a safe and responsible manner and is suitable for the transit of sodium cyanide. The review is not a final acceptance of the Port of Callao for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

The due diligence review concluded:

The ongoing review as a service provider and this due diligence assessment has found no issues of concern in regards to the Port of Callao. Orica via its South American affiliates will continue to review and monitor the port's performance and this will include ongoing and regular contact to maintain awareness and preparedness.

3.1.2 Port of Buenos Aires, Argentina

Orica conducted a due diligence assessment of the Port of Buenos Aires on 3 March 2010.

The due diligence review found no issues of concern in regards to the management of solid sodium cyanide product. The review is not a final acceptance of the Port of Callao for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

The due diligence review concluded:

Orica's due diligence concluded that the Port of Buenos Aires is operating as safely as reasonably practicable and in accordance with Orica requirements.

3.1.3 Port of Puerto Deseado, Argentina

Orica conducted a due diligence assessment of the Port of Deseado on 7 October 2010.

The due diligence review found no issues of concern in regards to the management of solid sodium cyanide product. The review is not a final acceptance of the Port of Puerto Deseado for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

The ongoing review as a service provider and this due diligence assessment has found no issues of concern in regards to the Port of Puerto Deseado. Orica via its South American affiliates will continue to review and monitor the port's performance and this will include ongoing and regular contact to maintain awareness and preparedness.

3.1.4 Port of Santos, Brazil

A due diligence review of the Port of Santos was conducted by Orica on the 19 September 2010.

The due diligence determined that the port was operating in a responsible and safe manner as far as practicable and is suitable for the transit of sodium cyanide through to end user destinations in Brazil.

The due diligence concluded:

The ongoing review as a service provider and this due diligence assessment has found no issues of concern in regards to the Port of Santos. Orica via its South America affiliates will continue to review and monitor the



port's performance and this will include ongoing and regular contact to maintain awareness and preparedness.

3.2 Shipping

Orica conducted the following due diligence assessments of shipping operations utilised as part of their Latin America Supply Chain:

- Maersk Australia Pty Ltd Due Diligence Review, Orica Mining Chemicals, 14 October 2010
- Hamburg SUD Group Due Diligence Review, Orica Mining Chemicals, 7 July 2010.

The reviews were conducted by David Ellison, SH&E Distribution Risk Manager at Orica Australia Pty Ltd. David Ellison meets the ICMI requirements for a Transport Expert.

The following items were addressed within the due diligences:

- Compliance with ICMC
 - Transport Practice 1.1
 - Transport Practice 1.5
 - Transport Practice 1.6.
- Australian Shipping Regulatory Framework
 - Australian Maritime Safety Authority (AMSA)
 - Cargoes
 - Port State Control
 - Power of Inspection and Detention.
- Australian Department of Defence
- Conclusion.

The due diligence assessments were compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

The due diligence assessments were found to sufficiently evaluate the shipping operations (discussed below), and additional management measures by the consigner were not considered necessary.

3.2.1 Maersk Australia Pty Ltd

Orica conducted a due diligence review of Maersk on 14 October 2010.

Maersk Shipping is a carrier service providing international shipping of containers. Containers of solid sodium cyanide are placed and secured on the vessels at the loading port (Port of Brisbane) by a stevedoring company and removed at the port of destination by the stevedoring company at that port.

The due diligence review concluded:

Orica through its dealings with Maersk Shipping has found them to be a professional shipping organisation.

The ongoing review as a service provider and this due diligence review has found no issues of concern in regards to Maersk Shipping's management and the shipping of solid sodium cyanide product. The review is not a final acceptance of Maersk Shipping for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.



Any changes in state, national or international regulations, standards or laws can result in a total review of the international shipping requirements.

The due diligence also noted that:

Orica is not able to conduct inspections and checks on shipping vessels readily due to port safety and security issues. The Australian Government through the Australian Maritime Safety Authority (AMSA) and State Government through the Port State Control (PSC) do however inspect and monitor cargo vessels that frequent Australian ports. These inspections ensure vessels are seaworthy, do not pose a pollution risk, provide healthy and safe work environments and comply with relevant international regulations. These inspections are not only carried out at Australian ports but internationally and set the operating standards for the international shipping companies.

3.2.2 Hamburg SUD Group

Orica conducted a due diligence review of Hamburg SUD on 7 July 2010.

The due diligence review concluded:

Orica through its dealings with Hamburg SUD has found them to be a professional organisation.

The ongoing review as a service provider and this due diligence review has found no issues of concern in regards to Hamburg SUD management and shipping of the solid sodium product. The review is not a final acceptance of Hamburg SUD for future work and as with all service providers to Orica, Orica will continue to review and monitor their performance.

Any changes in state, national or international regulations, standards or laws can result in a total review of the international shipping requirements.

The due diligence also noted that:

Orica is not able to conduct inspections and checks on shipping vessels readily due to port safety and security issues. The Australian Government through the Australian Maritime Safety Authority (AMSA) and State Government through the Port State Control do however inspect and monitor cargo vessels that frequent Australian ports. These inspections ensure vessels are seaworthy, do not pose a pollution risk, provide healthy and safe work environments and comply with relevant international regulations. These inspections are not only carried out at Australian ports but internationally and set the operating standards for the international shipping companies.

3.3 Auditor Review of Due Diligence

Orica has concluded from the due diligence assessments that no major issues of concern were identified with respect to the transportation of sodium cyanide throughout the domestic supply chain by the shipping operators, road transportation operators and port utilised. Based on a review of the due diligence reports, the auditor accepts this conclusion.



Report Signature Page

GOLDER ASSOCIATES PTY LTD

A handwritten signature in black ink, appearing to read 'Ed Clerk'.

Ed Clerk
Associate and Environment Group Manager

JH/ECW/jlt

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APPENDIX A

Limitations



LIMITATIONS

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