



August 2017

INTERNATIONAL CYANIDE MANAGEMENT CODE

Hebei Chengxin Co Ltd Global Ocean Supply Chain Certification – Summary Audit Report

Submitted to:

International Cyanide Management Institute
1400 I Street, NW – Suite 550
Washington, DC 20005
UNITED STATES OF AMERICA

Hebei Chengxin Co Ltd
Yuanzhao Road, Yuanshi County
Shijiazhuang City, Hebei Province
051130 CHINA

REPORT



Report Number. 1668932-021-R-Rev0

Distribution:

- 1 Copy – ICMI (+1 Electronic)
- 1 Copy – Hebei Chengxin Co Ltd (Electronic)
- 1 Copy – Golder Associates Pty Ltd (Electronic)





Table of Contents

1.0 INTRODUCTION	1
1.1 Operational Information	1
1.2 Description of Operation	1
1.2.1 Hebei Chengxin Co Ltd, China Production Facility	1
1.2.2 Marine Transportation	1
1.3 Audit scope	2
1.4 Marine Transportation	3
1.4.1 CMA CGM	3
1.4.2 Hapag-Lloyd	3
1.4.3 KMTC	3
1.4.4 Maersk Shipping (Maersk)	3
1.4.5 Mediterranean Shipping Company (MSC)	4
1.5 Road Transportation	4
1.5.1 Hebei Chengxin Transport Co Ltd, China	4
1.6 Transit Storage	4
1.7 Auditors Findings and Attestation	6
1.8 Name and Signatures of Other Auditors:	6
1.9 Dates of Audit	6
2.0 CONSIGNOR SUMMARY	7
2.1 Principle 1 – Transport	7
2.1.1 Transport Practice 1.1	7
2.1.2 Transport Practice 1.2	8
2.1.3 Transport Practice 1.3	9
2.1.4 Transport Practice 1.4	9
2.1.5 Transport Practice 1.5	10
2.1.6 Transport Practice 1.6	11
2.2 Principle 2 – Interim Storage	13
2.2.1 Transport Practice 2.1	13
2.3 Principle 3 – Emergency Response	14
2.3.1 Transport Practice 3.1	14
2.3.2 Transport Practice 3.2	15
2.3.3 Transport Practice 3.3	15



HEBEI CHENGXIN, GLOBAL OCEAN SUPPLY CHAIN CERTIFICATION – SUMMARY AUDIT REPORT

2.3.4	Transport Practice 3.4.....	16
2.3.5	Transport Practice 3.5.....	16
3.0	DUE DILIGENCE	17
3.1	Marine transportation.....	17
3.2	Ports	17
4.0	IMPORTANT INFORMATION.....	17
 APPENDICES		
APPENDIX A		
Carrier Due Diligence Assessments		
APPENDIX B		
Port Due Diligence Assessments		
APPENDIX C		
Important Information		



1.0 INTRODUCTION

1.1 Operational Information

Name of Transportation Facility: Hebei Chengxin Co Ltd – Global Ocean Supply Chain
Name of Facility Owner: Not Applicable
Name of Facility Operator: Hebei Chengxin Co Ltd
Name of Responsible Manager: Jason Li, Business Manager, Hebei Chengxin International Department
Address: Hebei Chengxin Co Ltd
Yuanzhao Road, Yuanshi County
Shijiazhuang City, Hebei Province
051130 CHINA
State/Province: Hebei Province
Country: China
Telephone: +86 311 66500855
Fax: +86 311 85695069
Email: jason.li@hebeichengxin.com

1.2 Description of Operation

1.2.1 Hebei Chengxin Co Ltd, China Production Facility

Hebei Chengxin Co Ltd's (Hebei) cyanide production facility is located in Yuanshi County, approximately 30 km south of the Hebei Province capital of Shijiazhuang City.

The site is used to manufacture a large number of chemicals using liquid sodium cyanide as a basic feed stock. These products include sodium cyanide, sodium ferrocyanide, cyanuric chloride, benzyl cyanide and phenylacetic acid. The part of the site used to manufacture liquid cyanide and then convert the liquid cyanide into solid cyanide is referred to in this report as the cyanide facility.


The cyanide production facility is connected to the site's utilities including stormwater drains and the wastewater treatment plant. The facility was constructed in 2007 and replaced earlier cyanide production facilities.

Hebei's production facility is an ICMC certified cyanide production facility (November 2015) and meets the requirements of the ICMC for the manufacture, transport and use of cyanide in the gold production cycle.

1.2.2 Marine Transportation

Hebei contracts the marine transportation of solid cyanide within its Supply Chain to major international shipping companies with the ability to offer scheduled container services from point of origin to destination. The shipping companies used are CMA CGM, Hapag-Lloyd, KMTTC, Maersk and Mediterranean Shipping Company (MSC).

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date




1.3 Audit scope

The scope of Hebei's Supply Chain covers the following:

- Hebei Chengxin Transport Co Ltd (consignor)
- Ports
 - Port of Buenos Aires, Argentina (destination port)
 - Port of Callao, Peru (destination port)
 - Port of Manzanillo, Mexico (destination port)
 - Port of Valparaiso, Chile (destination port)
 - Port of Conakry, Guinea (destination port)
 - Port of Dakar, Senegal (destination port)
 - Port of Dar es Salaam (destination port)
 - Port of Tema, Ghana (destination port)
 - Port of Qindao, China (port of departure)
 - Port of Shanghai, China (port of departure)
 - Port of Tianjin, China (port of departure)
 - Port of Jakarta, Indonesia (destination port)
 - Port of Jeddah, Saudi Arabia (destination port)
 - Port of Vostochny, Russia (destination port)
- Carriers
 - CMA CGM
 - KMTC
 - Hapag-Lloyd
 - Maersk
 - MSC

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



1.4 Marine Transportation

1.4.1 CMA CGM

The CMA CGM Group is a global logistics enterprise headquartered in Marseille, France. CMA CGM is present in more than 160 countries through its network of over 600 agencies, 200 vessels and 521 commercial Ports. The company operates on every one of the world's seas and in 2015/16 transported a volume of 18 million Twenty-Foot Equivalent Units (TEUs).

CMA CGM states it aligns to the IMO DG Code, ISM Code, SOLAS treaty, MARPOL Convention, French Vessel safety rules, and International Maritime Organisation publications.

CMA CGM conduct their own annual vessel audits, additionally, vessels are registered by the Lloyd's Register Group, which provides classification and certification of ships, and inspects and approves important components and accessories.

1.4.2 Hapag-Lloyd

Hapag-Lloyd, headquartered in Hamburg, Germany, is a global shipping company. Hapag Lloyd operates 166 vessels with the capacity to transport 7.4 million TEUs annually, through a fully integrated global network of 125 liner services calling at 538 commercial Ports across 121 countries.

Hapag-Lloyd'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.

1.4.3 KMTTC

Established in 1954, KMTTC is a Korean marine transportation company. KMTTC offer logistical marine transport between the mainland of China, South Korea, Japan, South-East Asia and the Middle East. KMTTC, headquartered in Seoul, South Korea, is present in 25 countries with 90 global offices and branches and 55 commercial ports.

KMTTC state they operate in accordance with ISO 9001 (Quality Management Systems), IMO DG Code, ISM Code and the International Ship and Port Facility Security (ISPS) Code


1.4.4 Maersk Shipping (Maersk)

Maersk, headquartered in Copenhagen, Denmark, operates a fleet of 639 container vessels with worldwide shipping coverage. Maersk operates via 306 offices in 114 countries and throughout 378 Ports of call. The fleet has the capacity to handle more than 3 million TEUs annually. Maersk operates a container booking and tracking system called the Global Customer Service System (GCSS). This is a management tool used to manage the stowage and handling of dangerous goods cargo.

Maersk state they operate in accordance with the IMO DG Code, ISM Code, SOLAS treaty, MARPOL Convention and International Maritime Organization publications to carry out the transportation of dangerous goods in accordance with local and international regulations. Maersk have the right to refuse cargo if the packaging, container and/or documentation are not acceptable to their internal standards, designed to meet the requirements of the IMO DG Code standards.

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. Maersk also has current certificates for its vessels under the ISPS Code developed by the IMO.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



1.4.5 Mediterranean Shipping Company (MSC)

MSC, headquartered in Geneva, Switzerland, is engaged in worldwide container transport via its fleet of 460 vessels, 200 shipping routes and 315 Ports of call. MSC operates in 150 countries with a network of over 480 offices and branches. The fleet has the capacity to handle more than 2.7 million TEUs annually.

MSC has Dangerous Goods Cargo Management Centres that manage the stowage of hazardous cargo worldwide through their computer system. MSC state they operate in accordance with the stringent requirements for stowage and segregation of dangerous goods as per the IMO DG Code.

MSC'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.

1.5 Road Transportation

1.5.1 Hebei Chengxin Transport Co Ltd, China

Transportation from Hebei's cyanide production facility to one of three Chinese Ports – Qingdao, Shanghai or Tianjin occurs as part of the Global Ocean Supply Chain (Supply Chain). All road transportation is carried out by Hebei Chengxin Transport Co Ltd (a consignor) an ICMC certified (December 2016) sister transport company of Hebei Chengxin Co Ltd (the producer).

1.6 Transit Storage


Depending on weather, cargo types, journey length and other operational matters, carriers may trans-ship 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 within Hebei's Supply Chain. Hebei has no control over when and where this happens, but through its due diligence assessments has satisfied itself that the carriers used (CMA CGM, Hapag-Lloyd, KMTC, Maersk and MSC) undertake the shipping of the product in accordance with the *International Maritime Dangerous Goods Code* (IMO DG Code) and in a professional and safe manner.

This satisfaction extends to the selection of Port terminals made by the shipping companies and used for trans-shipping operations.

Trans-shipping Ports used may include:

- CMA CGM:
 - Port of Algeciras, Spain
 - Port of Antwerp, Belgium
 - Port of Busan, South Korea
 - Port of Callao, Peru
 - Port of Hong Kong
 - Port of Shekou, China
 - Port of Singapore

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor


17 August 2017
Date



HEBEI CHENGXIN, GLOBAL OCEAN SUPPLY CHAIN CERTIFICATION – SUMMARY AUDIT REPORT

- KMTC:
 - Port of Busan, South Korea
 - Port of Ho Chi Minh, Vietnam
 - Port of Jebel, United Arab Emirates
 - Port of Klang, Malaysia
- Hapag-Lloyd:
 - Port of Antwerp, Belgium
 - Port of Busan, South Korea
 - Port of Hamburg, Germany
 - Port of Hong Kong
 - Port of Klang, Malaysia
 - Port of Le Havre, France
 - Port of Singapore
- Maersk:
 - Port of Algeciras, Spain
 - Port of King Abdullah, Saudi Arabia
 - Port of Singapore
 - Port of Tangier, Morocco
 - Port of Tanjung Pelepas, Malaysia
 - Port of Walvis Bay, Namibia
- Mediterranean Shipping Company (MSC)
 - Port of Antwerp, Belgium
 - Port of Buenaventura, Colombia
 - Port of Busan, South Korea
 - Port of Felixstowe, UK
 - Port of Las Palmas, Canary Islands
 - Port of Louis Harbour, Mauritius
 - Port of Sal Al Ah, Oman
 - Port of Singapore

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



1.7 Auditors Findings and Attestation

in full compliance with

Hebei is: in substantial compliance with **The International Cyanide Management Code**
 not in compliance with

No significant cyanide exposures or releases were noted to have occurred during Hebei’s Global Ocean Supply Chain certification audit.

Audit Company: Golder Associates Pty Ltd
Audit Team Leader: Ed Clerk, Exemplar Global (105995)
Email: eclerk@golder.com.au

1.8 Name and Signatures of Other Auditors:

Name	Position	Signature	Date
Ed Clerk	Lead Auditor and Transport Technical Specialist		17 August 2017

1.9 Dates of Audit

The certification audit of Hebei’s Supply Chain was undertaken between January and July of 2017, with the Detailed Audit Report being finalised in July.

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 *Cyanide Transportation Verification Protocol for the International Cyanide Management Code* and using standard and accepted practices for health, safety and environmental audits.

Hebei Global Ocean Supply Chain
Name of Facility

Signature of Lead Auditor

17 August 2017
Date



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.

Hebei is in full compliance with **Transport Practice 1.1**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The Hebei 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.

Hebei has implemented a process for selecting transport routes that minimises the potential for accidents and releases or the potential impacts of accidents and releases.

Hebei has developed and implemented a management system for transportation and there is a specific written procedure that details the process and the parameters to be assessed when identifying, selecting and assessing potential transport routes. As well as road transportation issues the procedure also considers marine carriers and ports

Due diligence assessments are completed as a part of the selection process. Hebei conducts due diligence assessments on the Port facility or carrier on an annual basis to ensure that dangerous goods product transportation is being carried out in accordance with the regulatory standards.

The due diligence assessments state that:


“The report is not a final acceptance of [the shipping lines] OR [the Port] for future work and as with all service providers to Hebei, Hebei will continue to review and monitor the performance on an annual basis.”

The international sales and exports of cyanide by Hebei take into consideration the Ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from the Port of origin to the destination.

Hebei utilises CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC for the international shipping of solid cyanide. Containers are placed and secured on their vessels at the Port of loading in China by the stevedoring company or service provider, and removed at the destination by the stevedoring company or service provider at that Port. As such, CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC provide a marine carrier service and handling of containers (on and off vessels) is undertaken by stevedoring companies at each Port.

Hebei does not have control of over routes taken by the service providers, but has undertaken due diligence assessments of CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC to verify that the shipments are transported in accordance with the IMO DG and IMSBC Codes.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



The destination Port is selected on the basis that it is the closest Port to the customer and that it meets reasonable industry standards for safety, security and emergency response.

Due diligence assessments of the Ports used in the Supply Chain concluded that the Ports meet the requirements of the ICMC.

Where issues were identified, it was established that they would be adequately mitigated by Hebei reducing the time that product spends at that Port.

Hebei has implemented a procedure to evaluate the risks of selected cyanide transport routes and take the measures necessary to manage these risks. Risks are identified during the route selection process and Hebei has implemented a procedure to periodically re-evaluate routes. Hebei documents the measures taken to address risks identified with the selected routes.

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.

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 1.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 1.2 requiring personnel operating cyanide handling and transport equipment to perform their jobs with minimum risk to communities and the environment.

Hebei utilises CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC for the international shipping of solid cyanide. Containers are placed and secured on their vessels at the Port of loading in China by the stevedoring company or service provider, and removed at the destination by the stevedoring company or service provider at that Port. As such, CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC provide a marine carrier service and all actual handling of containers (on and off vessels) is predominately undertaken by stevedoring companies at each port.


Due diligence assessments of CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC were undertaken to verify that the shipments are handled in accordance with the IMO DG Code. The due diligence assessments found that there were no issues of concern with regards to the management and shipping of cyanide product by any of the carriers.

Hebei does not operate transport vehicles or equipment at Port facilities used in its Supply Chain, operation is undertaken by the managing Port Authority or stevedoring service provider at the Port.

The due diligence assessments found that the Ports used by Hebei are performing dangerous goods handling duties in accordance with international and local regulations. Ports selected in the Supply Chain are located in IMO member countries, member nations must ensure that Ports comply with the requirements of the IMO DG Code 2014, and in particular the training requirements for shore-side personnel as described in section 1.3.1 of the IMO DG Code.

Hebei conducts annual due diligence assessments of carriers and Port facilities used in the Supply Chain.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



2.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 1.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 1.3 requiring that transport equipment is suitable for the cyanide shipment.

Carriers and Ports used by Hebei have equipment operation and maintenance capabilities and procedures that are not dependent on Hebei. The ability of the carriers and Port facilities to operate safely, and their capability to handle dangerous goods is assessed during the due diligence process.

The completed due diligence assessments found that there were no issues of concern with regards to the management and shipping of cyanide product by any of the carriers; and that the Ports used by Hebei are performing dangerous goods handling duties in accordance with international and local regulations.

2.1.4 Transport Practice 1.4

Develop and implement a safety program for transport of cyanide.

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 1.4

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 1.4 requiring the operation develop and implement a safety programme for transport of cyanide.


There are procedures in place to ensure the cyanide is transported in a manner that maintains the integrity of the producer's packaging.

Product packaging is undertaken at the ICMC certified production facility and meets the requirements of the political jurisdictions through which the loads will pass.

There are in-transit procedures that allow for regular checks of the packaging integrity and the reporting of any damage or spillage. There are single use seals placed on doors of shipping containers and checks are tracked and recorded alongside a package's unique serial number.

CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC require from Hebei, evidence that products booked for transport meet the packaging requirements of the IMO DG Code. Some carriers reserve the right to refuse acceptance of cargo that does not meet packaging, container and documentation standards as set out in the Code.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



Due diligence assessments of CMA CGM, Hapag-Lloyd, KMTC, Maersk and MSC were undertaken to verify that shipments of dangerous goods are handled in accordance with the IMO DG Code. The due diligence assessments found that there were no issues of concern with regards to the shipping of cyanide product by CMA CGM, Hapag-Lloyd, KMTC, Maersk and MSC. Cyanide product remains sealed and packaged within locked shipping containers until it reaches the end use destination.

Hebei conducts annual due diligence assessments of carriers and Port facilities used in the Supply Chain.

Placards and signage used to identify the shipment as cyanide meet local (Chinese) and international standards. Diamonds placed at the front and rear of the vehicles identify the load as cyanide and the containers also have labelling that identifies the contents of the container.

All Hebei packaged cyanide remains sealed within its initial packaging and container until its arrival at the final destination.

2.1.5 Transport Practice 1.5

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

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 1.5

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 1.5 requiring the operation follow international standards for transportation of cyanide by sea and air.


Shipments of cyanide transported by sea are transported in compliance with the IMO DG Code.

CMA CGM, Hapag-Lloyd, KMTC, Maersk and MSC transport Hebei cyanide by sea to various destination Ports. All packaging and transportation is carried out in accordance with the IMO DG and IMSBC Codes.

Due diligence assessments of CMA CGM, Hapag-Lloyd, KMTC, Maersk and MSC were undertaken on behalf of Hebei to verify that the shipments are handled in accordance with the IMO DG and IMSBC Codes. The due diligence assessments found that there were no issues of concern with regards to the conduct and shipping of cyanide product by CMA CGM, Hapag-Lloyd, KMTC, Maersk and MSC.

No cyanide is transported by air within the scope of this Supply Chain.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



2.1.6 Transport Practice 1.6

Track cyanide shipments to prevent losses during transport.

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 1.6

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 1.6 requiring the operation track cyanide shipments to prevent losses during transport.

Hebei communicates with CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC onshore representatives by phone, fax and email.

The due diligence assessments for CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC found that their vessels have continuous means of tracking and communication during voyages. Additionally, each service provider has systems in place to track individual containers from point of origin through to the destination Port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Safety Data Sheets (SDS).

CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC onshore representatives and vessels have the software capability to track individual containers. This service is available from the time they are booked onto a vessel, right through the entirety of the journey, until they are received at the nominated destination Port.

For ports of departure in China, the China Maritime Safety Administration (MSA) regulates the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements.


As a member of the IMO and to comply with the IMO DG Code, vessels are required to declare dangerous cargo to the MSA by submitting the MSA’s Transport Document for Goods by Sea (Package) form before arriving/leaving at the Port.

For destination Ports the due diligences found that Ports in the Supply Chain are IMO members and ISPS Signatories (ISPS excluding Tanzania).

As IMO members and to comply with the requirements of the IMO DG Code, vessels are required to declare dangerous cargo before arriving/leaving the Port to Authorities or stevedoring service providers.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Safety Data Sheets (SDS).

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



HEBEI CHENGXIN, GLOBAL OCEAN SUPPLY CHAIN CERTIFICATION – SUMMARY AUDIT REPORT

At each destination Port stevedoring service providers or terminal managers operate their own choice of information management and cargo tracking systems. These systems include advanced terminal software programs capable of tracking individual containers that are unloaded from carriers and transferred to laydown areas or placed onto another means of transportation (trans-shipping, ground or rail).

Hebei's shipping agent provides updates on the status of shipments on a weekly basis. In each case this includes an estimate on arrival/departure times, where trans-shipping will occur and the time that discharge from the destination Port occurs.

Communication equipment is periodically tested to ensure it functions correctly. The primary means through which equipment is tested is through continuous use. Blackout areas have not been identified, however all vessels have continuous means of tracking and communication during their voyages.


There are systems to track the progress of the cyanide shipments. Hebei's shipping agent provides updates on the status of shipments on a weekly basis. In each case this includes the departure time/date and point of origin, an estimate on arrival time, where trans-shipping will occur and the time that discharge from the destination Port occurs.

All carriers have computer tracking software to allow them to identify at which phase of shipment each container is in. Inventory controls and chain of custody documentation processes are implemented to prevent the loss of cyanide during shipment.

The due diligence assessments found that there were no issues of concern with regards to the management and shipping of cyanide product by CMA CGM, Hapag-Lloyd, KMTCC, Maersk and MSC.

Shipping records indicate the amount of cyanide material in transit and SDS sheets are available. The amount of cyanide in transit, the packing certificates and the SDS are contained within the ships manifest (including the MO41 Document), which accompanies the cargo throughout the journey.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



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

Hebei is

in substantial compliance with

Transport Practice 2.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 2.1 that requires transporters design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent release and exposures.

Hebei does not operate trans-shipping or interim storage facilities within its Supply Chain, but circumstances may arise where trans-shipping of cyanide product is required. This involves unloading the cargo at a terminal facility, temporary set down and loading onto another vessel for the continuation of the delivery.


Hebei has no control over when and where this happens, but through the completion of due diligence assessments has satisfied itself that the carriers used (CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC) undertake the trans-shipping of product in accordance with the IMO DG Code and regulations for the handling of dangerous goods pertinent to that Port.

Depending on weather, cargo types and other operational matters, carriers may tranship their cargo from one vessel to another.

Trans-shipping Ports were identified for each shipping service provider but not assessed as part of the due diligence assessments carried out on behalf of Hebei. The due diligence assessments did not identify any issues of concern with regards to the management or transport of cyanide by CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC – this extends to the carriers ability to select a suitable Port for the purpose of trans-shipping when required.

The due diligence assessments of the Ports identified that temporary storage or set down of product is conducted in accordance with the requirements of the IMO DG Code and other relevant international, and where developed, local dangerous goods handling regulations.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



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

Hebei is

in substantial compliance with

Transport Practice 3.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 3.1 requiring the operation prepare detailed Emergency Response Plans for potential cyanide releases.

Hebei has an emergency response plan (ERP).

A copy of the ERP is kept in each vehicle that is used to transport cyanide.

Whilst Hebei's product is embarked on CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC vessels all emergency response is governed by the vessel's captain. Hebei conducts due diligence assessments of CMA CGM, Hapag Lloyd, KMTTC, Maersk and MSC to verify that the shipments occur in accordance with the IMO DG Code, thereby meeting emergency response requirements.

Hebei require transport companies to have appropriate emergency response plans and capabilities for handling any cyanide incident that falls within their contractual responsibility.


The due diligences found that CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC carry out the shipping of dangerous goods in accordance with the requirements of the IMO DG Code.

Each operator implements their own system of safety and emergency response management that extends to emergency situations involving cyanide and other dangerous goods. Expert emergency responders, as well as dangerous goods technical experts, are available to respond and assist in emergency situations.

The due diligence assessments found that the Ports used by Hebei are performing dangerous goods handling duties in accordance with international and local regulations. Ports selected in the Supply Chain are located in IMO member countries, member nations must ensure that Ports comply with the requirements of the IMO DG Code.

The due diligences also found that the Ports are certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States that are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



2.3.2 Transport Practice 3.2

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

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 3.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 3.2 requiring they designate appropriate response personnel and commit necessary resources for an emergency response.

Whilst Hebei’s product is embarked on carriers, all emergency response is governed by the vessel’s captain. Hebei conducts due diligence reviews to verify that the shipments occur in accordance with the IMO DG Code. Due diligence reviews have found that there were no issues of concern in regards to the management and shipping of cyanide product by any of the shipping lines.

CMA CGM, Maersk, MSC and Hapag-Lloyd vessels are registered by the Lloyd’s Register Group, which provides classification and certification of ships, and inspects and approves important components and accessories.

Hebei require transport companies to have appropriate emergency response plans and capabilities for handling any cyanide incident that falls within their contractual responsibility. The level of capability is assessed through the due diligence process.

The due diligences assessments found that CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC each carry out the shipping of dangerous goods in accordance with the requirements of the IMO DG and IMSBC Codes. Each operator implements their own system of safety and emergency response management that extends to

The due diligence assessments found that the Ports used by Hebei have appropriate emergency response capabilities to deal with potential dangerous goods releases.

2.3.3 Transport Practice 3.3

Develop procedures for internal and external emergency notification and reporting.

in full compliance with

Hebei is

in substantial compliance with

Transport Practice 3.3


not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

Hebei is in FULL COMPLIANCE with Transport Practice 3.3 requiring that they develop procedures for internal and external emergency notification reporting.

Whilst Hebei’s product is embarked on CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC vessels all emergency response is governed by the vessel’s captain. Hebei conducts due diligence assessments of CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC to verify that the shipments occur in accordance with the IMO DG Code, thereby meeting emergency response requirements.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



Hebei require transport companies to have appropriate emergency response plans, including current contact information, and capabilities for handling any cyanide incident that falls within their contractual responsibility.

The due diligences found that CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC carry out the shipping of dangerous goods in accordance with the requirements of the IMO DG Code.

2.3.4 Transport Practice 3.4

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

Hebei 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:

Hebei is in FULL COMPLIANCE with Transport Practice 3.4 requiring the operation to develop procedures for remediation of releases that recognise the additional hazards of cyanide treatment.

Whilst Hebei’s product is embarked on CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC vessels all emergency response is governed by the vessel’s captain. Hebei conducts due diligence assessments of CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC to verify that the shipments occur in accordance with the IMO DG Code, thereby meeting emergency response requirements.

Hebei require transport companies to have appropriate emergency response plans and capabilities for handling any cyanide incident that falls within their contractual responsibility.

The due diligences found that CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC carry out the shipping of dangerous goods in accordance with the requirements of the IMO DG Code.

2.3.5 Transport Practice 3.5

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

Hebei is in full compliance with **Transport Practice 3.5**
 in substantial compliance with
 not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:


Hebei is in FULL COMPLIANCE with Transport Practice 3.5 requiring the operation to periodically evaluate response procedures and capabilities and revise them as needed.

Whilst Hebei’s product is embarked on CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC vessels all emergency response is governed by the vessel’s captain. Hebei conducts due diligence assessments of CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC to verify that the shipments occur in accordance with the IMO DG Code, thereby meeting emergency response requirements.

Hebei require transport companies to have appropriate emergency response plans and capabilities for handling any cyanide incident that falls within their contractual responsibility.

The due diligences found that CMA CGM, Hapag-Lloyd, KMTTC, Maersk and MSC carry out the shipping of dangerous goods in accordance with the requirements of the IMO DG Code.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



3.0 DUE DILIGENCE

3.1 Marine transportation

Refer to Appendix A for the full due diligence assessment conducted on each carrier.


3.2 Ports

Refer to Appendix B for the full due diligence assessment conducted on each Port facility.

4.0 IMPORTANT INFORMATION

Your attention is drawn to the document “Important Information Relating to This Report”, which is included as Appendix C to this report. This document is intended to assist you in ensuring that your expectations of this report are realistic, and that you understand the inherent limitations of a report of this nature. If you are uncertain as to whether this report is appropriate for any particular purpose please discuss this issue with us.

Hebei Global Ocean Supply Chain
Name of Facility


Signature of Lead Auditor

17 August 2017
Date



Report Signature Page

GOLDER ASSOCIATES PTY LTD

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

Ed Clerk
ICMC Lead Auditor and ICMC Transportation Expert

CC/EWC/hsl

A.B.N. 64 006 107 857

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\20-21 dar and sar\1668932-021-r-rev0 sar hebei global ocean supply chain.docx



APPENDIX A

Carrier Due Diligence Assessments

2 February 2017

Reference No. 1668932-001-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT OF KOREA MARINE TRANSPORT CO LTD

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Korea Marine Transport Co Ltd (KMTC) during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (October 2009), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find any issues of concern in regards to KMTC's management of solid sodium cyanide product. This assessment should not be a final acceptance of KMTC for future work; rather it is recommended that Hebei continue to review and monitor KMTC's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the shipping line KMTC, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of KMTC during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of KMTC

KMTC was founded in 1954, headquartered in Seoul, Korea. The main business of KMTC is marine transport between terminal and harbor. The routes are between the mainland of China, South Korea, Japan, South-East Asia and the Middle East.

KMTC has offices in Korea, Japan, China, Singapore, Indonesia, Malaysia and Thailand. Nine offices are set up in the North-West of Asia and Middle East.

KMTC has developed an integrated marine computer service management system and in 2006 received international recognition for its 91% punctuality rate, coming after Fairplay, Great Britain's reputed marine association, surveyed the punctuality rate of 23 shipping routes consisting of 3300 vessels worldwide.

KMTC obtained compliance for the ISM CODE under the authority of the Government of Korea by Korean Registry of Shipping in 1998 and renewed it in April of 2003.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

KMTC is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers holding sodium cyanide are placed and secured on their vessels at the loading port by the port stevedoring company. As such, KMTC provide a marine carrier service and all actual handling of containers (on and off vessels) is predominately undertaken by stevedoring companies at each port.

In some instances, sodium cyanide shipments are unloaded at terminals en-route to its final destination. This is known as trans-shipping and involves a temporary set down within a port facility before loading onto another vessel for continuation of the delivery. It is at the discretion of KMTC to determine when and where this occurs. However, through previous due diligence investigations and accounts from other consigners, Golder is satisfied that KMTC conducts itself in accordance with the International Maritime Organisation (IMO) Dangerous Goods (DG) Code and in a professional manner, which extends to the selection of terminals used by KMTC for trans-shipping.

The routes taken are not 'definitive' routes as ships can take various routes to arrive at the same destination as they take into account tides, currents, wind and storms. This is also noted in the schedules which provide estimated travel times between ports.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

KMTC transports sodium cyanide by sea to various destination ports. All packaging and transportation is in accordance with the IMO DG Code.

KMTC operations personnel provide the vessel's Master with the copies of Emergency Information together with the Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units to be loaded at the port. This documentation ensures that the adequate information is available in order to identify the correct stowage and separation of dangerous goods.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

KMTC operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Documentation provided includes Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port. This information then determines the placement and segregation of the container on the vessel.

Based on previous due diligence investigations and accounts from other consigners, Golder is satisfied that KMTC complies with Part 7 of the IMO DG Code.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

KMTC vessels have continuous means of tracking and communication during their voyages.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest- which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

All packaging and transportation of sodium cyanide is required to be in accordance with the IMO DG Code.

KMTC operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

KMTC also operate their own safety promotion system. Using this system, KMTC aim to achieve safe, efficient operations of all vessels that transport cargo (including owned or chartered vessels). The system has been developed to meet international regulations which also ensure KMTC be compliance with them.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

KMTC has an emergency response plan to deal with potential dangerous goods release. The emergency response teams from KMTC who are experts in handling dangerous cargo and responding to dangerous situations can be dispatched as required.

KMTC provide regular training to increase employees' ability to respond to accidents. Training exercises involve scenarios with different vessel types and are practiced under different emergency situations with various vessel crews, ship-management companies, government agencies, customers and other interested parties.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to KMTC's management of solid sodium cyanide product. This assessment should not be a final acceptance of KMTC for future work; rather it is recommended that Hebei continue to review and monitor KMTC's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-001-l-rev0 dd shipping ekmtc shipping.docx

REFERENCES

- eKMTC (2011). Information. Available at: <http://www.ekmtc.com/> Accessed 24 January 2017
- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). *Maritime Security and Piracy*. Available at: <http://www.imo.org/en/OurWork/Security/Pages/MaritimeSecurity.aspx> Accessed 1st December 2016.
- International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- Maritime Safety Administration of the People's Republic of China (no date). *Emergency Response, Safety and Environment Protection, Legislations*. Available at: <http://en.msa.gov.cn/index.php?m=content&c=index&a=lists&catid=285> Accessed 1st December 2016.
- Provisions on Safety Supervision and Administration of Carriage of Dangerous Goods of People's Republic of China*. Available at: http://www.gov.cn/ztl/2006-05/27/content_292772.htm Accessed 4th December 2016.
- Provisions on the Safety Management of Dangerous Goods at Ports*. Available at: http://www.whghgl.gov.cn/art/2015/1/20/art_8932_412639.htm Accessed 4th December 2016.
- Work Safety. Translated to English via Google. Available at: http://www.chinasafety.gov.cn/newpage/Contents/Channel_6288/2008/0422/3645/content_3645.htm Accessed 4th December 2016.

2 February 2017

Reference No. 1668932-005-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT OF MAERSK LINE

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Maersk Line (Maersk) during December 2016 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to Maersk's management of solid sodium cyanide product. This assessment should not be a final acceptance of Maersk for future work; rather it is recommended that Hebei continue to review and monitor Maersk's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the shipping line Maersk, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of Maersk during December 2016. The assessment was conducted by Ed Clerk who meets the ICMI requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Maersk Line

Maersk, headquartered in Copenhagen, Denmark, operates a fleet of containers vessels with worldwide shipping coverage. The fleet consists of approximately 590 container vessels with the capacity to handle more than three million 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.

Maersk have previously required companies to provide evidence that their product packaging has been approved by government regulators and tested in accordance with International Maritime Organisation (IMO) Dangerous Goods (DG) Code. Maersk have the right to refuse cargo if the packaging, container and/or documentation are not acceptable to IMO DG Code standards.

As mentioned in the *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), General Guidance notes, consignors are not able to conduct inspections and checks on shipping vessels due to Port safety and security issues.

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. Maersk also has current certificates for its vessels under the International Ship and Port Facility Security (ISPS) Code developed by the IMO.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

Maersk is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers holding sodium cyanide are placed and secured on their vessels at the loading port by the port stevedoring company or service provider. As such, Maersk provide a marine carrier service and all actual handling of containers (on and off vessels) is predominately undertaken by stevedoring companies at each port. Where a port does not have equipment to lift containers on and off the vessel, Maersk service these ports with a 'self-gear'd' vessel that has its own lifting devices.

In some instances, sodium cyanide shipments are unloaded at terminals en-route to its final destination. This is known as trans-shipping and involves a temporary set down within a port facility before loading onto another vessel for continuation of the delivery. It is at the discretion of Maersk to determine when and where this occurs. However, through previous due diligence investigations and accounts from other consigners, Golder is satisfied that Maersk conducts itself in accordance with the IMO DG Code and in a professional manner, which extends to the selection of terminals used by Maersk for trans-shipping.

The routes taken are not 'definitive' routes as ships can take various routes to arrive at the same destination as they take into account tides, currents, wind and storms. This is also noted in the schedules which provide estimated travel times between ports. The consignment booking in the GCSS system will ensure any changes to the booking or scheduling are requested and confirmed from the vessel controllers or terminals. The booking carries all the requirements as regards to handling and stowage required for the sodium cyanide containers.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

Maersk transports sodium cyanide by sea to various destination ports. All packaging and transportation is in accordance with the IMO DG Code.

Documentation provided includes Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each container and the Maersk's GCSS (which records the UN classification (UN 1689), Dangerous Goods Class (6) and that the product is a marine pollutant) ensure that adequate information is available in order to identify the correct stowage and separation of dangerous goods. This information then determines the placement and segregation of the container on the vessel and handling through trans-shipment ports, if applicable.

Maersk has multiple cross checking layers to verify that products arriving at the laydown areas match those provided on the booking and that containers being loaded onto the vessels match those stipulated on the loading (or stowage) plan.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

Maersk operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Documentation provided includes Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each container and the Maersk's GCSS (which records the UN classification (UN 1689), Dangerous Goods Class (6) and that the product is a marine pollutant) ensure that adequate information is available in order to identify the correct stowage and separation of dangerous goods. This information then determines the placement and segregation of the container on the vessel and handling through trans-shipment ports, if applicable.

Based on previous due diligence investigations and accounts from other consigners, Golder is satisfied that Maersk complies with Part 7 of the IMO DG Code.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

Maersk vessels have continuous means of tracking and communication during their voyages. 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. Communication equipment is tested through continuous use.

Chain of custody documentation is used by Maersk to prevent the loss of cargo during shipment. This documentation includes the vessel manifest and Material Safety Data Sheets (MSDS), which identifies the location and content of each container on the vessel. In addition, Maersk operates the GCSS to allow them to identify at which phase of shipment each container is in.

All Maersk vessels are registered by the Lloyd's Register Group, which provides classification and certification of ships, and inspects and approves important components and accessories.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

Maersk is required to have current certificates for its vessels under the ISPS Code developed by the IMO.

All packaging and transportation of sodium cyanide is required to be in accordance with the IMO DG Code.

Maersk operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port. Maersk's GCSS (which records the UN classification (UN 1689), Dangerous Goods Class (6) and that the product is a marine pollutant) ensure that adequate information is available in order to identify the correct stowage and separation of dangerous goods. This information then determines the placement and segregation of the container on the vessel and handling through trans-shipment ports, if applicable.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

Maersk also has current certificates for its vessels under the International Ship and Port Facility Security (ISPS) Code developed by the IMO, which includes the IMDG Code (Chapter 7) and the ISM Code (Chapter 9).

In the case of an incident, Maersk's Casualty Committee, which consists of key stakeholders from dedicated technical and operational areas within the A.P. Moller – Maersk Group, is called into action to ensure measures are taken to minimise environmental impacts. Drills are carried out periodically to ensure emergency procedures are up-to-date and functioning efficiently.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to Maersk's management of solid sodium cyanide product. This assessment should not be a final acceptance of Maersk for future work; rather it is recommended that Hebei continue to review and monitor Maersk's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-005-l-rev0 dd maersk shipping.docx

REFERENCES

Golder Associates (2015). International Cyanide Management Code. Australian Gold Reagents Ocean Freight Supply Chain Recertification, Detailed Audit Report – Amendment. Report number- 1521736-006A-R-Rev1

Golder Associates (2016). International Cyanide Management Code. Due Diligence Assessment of Maersk Line. Report number- 1547550-003-L-Rev0

Golder Associates (2016). International Cyanide Management Code. Due Diligence Assessment of Maersk Line. Report number- 1650011-006-L-Rev0

Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090

International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at:
<http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation [IMO] (2016). Member States. Available at:
<http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017

International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at:
<http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017

Maersk Line (n.d.) About Us. Available at: <http://www.maerskline.com/en-au/about> Accessed 24 November 2016

Maersk Line (n.d.) Global Freight and Shipping Services. Available at: <http://www.maerskline.com/en-au/shipping-services> Accessed 24 November 2016

2 February 2017

Reference No. 1668932-006-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT OF MEDITERRANEAN SHIPPING COMPANY

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Mediterranean Shipping Company (MSC) during November 2016 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to MSC's management of solid sodium cyanide product. This assessment should not be a final acceptance of MSC for future work; rather it is recommended that Hebei continue to review and monitor MSC's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment of the shipping line MSC, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of MSC during November 2016. The assessment was conducted by Ed Clerk who meets ICMI's requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of MSC

MSC, headquartered in Geneva, Switzerland, is engaged in worldwide container transport. MSC operates approximately 480 container vessels with the capacity to handle the equivalent capacity of 2.6 million twenty-foot containers. MSC has set up dangerous goods cargo management centres that manage the stowage of hazardous cargo worldwide through their MSC Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking MSC Link computer system.

MSC'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.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

MSC is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers holding sodium cyanide are placed and secured on their vessels at the loading port by the port stevedoring company or service provider. As such, MSC provide a marine carrier service and all actual handling of containers (on and off vessels) is predominately undertaken by stevedoring companies at each port.

In some instances, sodium cyanide shipments are unloaded at terminals en-route to its final destination. This is known as trans-shipping and involves a temporary set down within a port facility before loading onto another vessel for continuation of the delivery. It is at the discretion of MSC to determine when and where this occurs. However, through previous due diligence investigations and accounts from other consigners, Golder is satisfied that MSC conducts itself in accordance with the International Maritime Organisation (IMO) Dangerous Goods (DG) Code and in a professional manner, which extends to the selection of terminals used by MSC for trans-shipping.

The routes taken are not 'definitive' routes as ships can take various routes to arrive at the same destination as they take into account tides, currents, wind and storms. This is also noted in the schedules which provide estimated travel times between ports.

MSC Shipping has their own in-house tracking systems for tracking freight which is linked by the specific container number and Bill of Lading (BOL) number.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

MSC transports sodium cyanide by sea to various destination ports. All packaging and transportation is in accordance with the IMO DG Code.

MSC has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their MSC Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking MSC Link computer system and ensures shipments meet the IMO DG Code requirements.

MSC has multiple cross checking layers to verify that products arriving at the laydown areas match those provided on the booking and that containers being loaded onto the vessels match those stipulated on the loading (or stowage) plan.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

MSC operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Documentation provided including Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each container ensure that adequate information is available in order to identify the correct stowage and separation of dangerous goods. This information then determines the placement and segregation of the container on the vessel and handling through trans-shipment ports, if applicable.

Based on previous due diligence investigations and accounts from other consigners, Golder is satisfied that MSC complies with Part 7 of the IMO DG Code.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

MSC vessels have continuous means of tracking and communication during their voyages. MSC Shipping has their own in-house tracking systems for tracking freight which is linked by the specific container number and BOL number. Communication equipment is tested through continuous use.

Chain of custody documentation is used by MSC to prevent the loss of cargo during shipment. This documentation includes the vessel manifest and Material Safety Data Sheets (MSDS), which identifies the location and content of each container on the vessel.

MSC has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their MSC Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking MSC Link computer system.

MSC vessels are registered by the Lloyd's Register Group, which provides classification and certification of ships, and inspects and approves important components and accessories.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

All packaging and transportation of sodium cyanide is required to be in accordance with the IMO DG Code.

MSC operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

MSC also developed the Intelligent Planning Exchange system (IPX) stowage management system which plans and stows dangerous cargo automatically to eliminate the potential for human error.

MSC has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their MSC Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking MSC Link computer system and ensures shipments meet the IMO DG Code requirements.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

MSC has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their MSC Link computer system headquartered in Antwerp. Specialist chemists' on-hand at the centres are able to provide advice in the event of an emergency.

MSC are also able to dispatch one of their eight worldwide emergency rescue teams who are experts in handling dangerous cargo and dangerous situations in the event of an emergency.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to MSC's management of solid sodium cyanide product. This assessment should not be a final acceptance of MSC for future work; rather it is recommended that Hebei continue to review and monitor MSC's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-006-l-rev0 dd msc shipping.docx

REFERENCES

Golder Associates (2015). International Cyanide Management Code. Australian Gold Reagents Ocean Freight Supply Chain Recertification, Detailed Audit Report – Amendment. Report number- 1521736-006A-R-Rev1

Golder Associates (2016). International Cyanide Management Code. Due Diligence Assessment of Mediterranean Shipping Company [MSC]. Report number- 1547550-005-L-Rev0

Golder Associates (2016). International Cyanide Management Code. Due Diligence Assessment of Mediterranean Shipping Company [MSC]. Report number- 1650011-005-L-Rev0

Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090

International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at:
<http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation [IMO] (2016). Member States. Available at:
<http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017

International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at:
<http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017

Mediterranean Shipping Company [MSC] (2017). About Us. Available at: <https://www.msc.com/aus/about-us> Accessed 24 November 2016

Mediterranean Shipping Company [MSC] (2017). Our Services. Available at: <https://www.msc.com/aus/our-services> Accessed 24 November 2016

2 February 2017

Reference No. 1668932-007-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT OF HAPAG-LLOYD

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Hapag-Lloyd during November 2016 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to Hapag Lloyd's management of solid sodium cyanide product. This assessment should not be a final acceptance of Hapag-Lloyd for future work; rather it is recommended that Hebei continue to review and monitor Hapag-Lloyd's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment of the shipping line MSC, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of Hapag-Lloyd during November 2016. The assessment was conducted by Ed Clerk who meets ICMI's requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Hapag-Lloyd

Hapag-Lloyd, headquartered in Hamburg, Germany, is engaged in worldwide container transport. Hapag Lloyd operates approximately 200 modern ships with the capacity to transport 7.5 million TEUs (Twenty-foot Equivalent Units) annually. Hapag-Lloyd operates a fully integrated global network and IT support system that facilitates all essential functions of container logistics.

Hapag-Lloyd offers a fleet with a total holding capacity of around one million TEUs as well as a container stock of more than 1.6 million TEUs, including one of the world's largest and most modern reefer container fleets. The combination of more than 100 liner services operated by Hapag-Lloyd and almost 40 services by CSAV (affiliate group) guarantees fast and reliable connections between all continents.

For over 165 years Hapag-Lloyd has set industry-wide benchmarks for reliability, service, productivity and environmental protection. Other important topics for Hapag-Lloyd are compliance, with international shipping regulation requirements, and sustainability.

Hapag-Lloyd'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.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

Hapag-Lloyd is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers containing sodium cyanide are placed and secured on their vessels at the loading port by the port stevedoring company or service provider, and removed at the port of destination by the stevedoring company or service provider at that port. Simply put Hapag-Lloyd provides a carrier service handling of containers is done by the stevedoring companies at each port.

Hapag Lloyd's larger vessels cover the international route from Europe, via the Mediterranean and South East Asia, on to China and then the West Coast of USA. The shipping line owns berths at their main container hubs along each potential route. Feeder vessels servicing other destinations will link services through these hubs where required.

The route is not a 'definitive' route as ships can take various routes to arrive at the same destination as they take into account tides, currents, wind and storms. This is also noted in the schedules which provide estimated travel times between ports.

The table below shows the planned transshipment ports and final destination, depending on weather, ship availability and demand that Hapag-Lloyd cargoes can be routed through. Additional routes may be added as required

Depart	Hub	Hub	Destination Port	Transit Time
Fremantle	Port Klang		Santos	55 days
Fremantle	Port Klang		Buenos Aires	60 days
Fremantle	Port Klang	Cape Town	Walvis Bay	55 days
Fremantle	Singapore		Tema	68 days
Fremantle	Singapore	Le Havre	Abidjan	82 days
Fremantle	Singapore	Le Havre	Dakar	77 days
Fremantle	Singapore		Jeddah	39 days

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

Hapag-Lloyd transports sodium cyanide by sea to various destination ports. All packaging and transportation is in accordance with the IMO DG Code.

Hapag-Lloyd has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their Hapag-Lloyd Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking Hapag-Lloyd Link computer system and ensures shipments meet the IMO DG Code requirements.

Hapag-Lloyd has multiple cross checking layers to verify that products arriving at the laydown areas match those provided on the booking and that containers being loaded onto the vessels match those stipulated on the loading (or stowage) plan.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

Hapag-Lloyd operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Hapag-Lloyd reserve the right to refuse cargo if the packaging, container and/or documentation are not acceptable to IMO DG Code standards. Clients are aware that vessel booking and scheduling requirements are subject to the cargo being accepted and confirmed in the Hapag-Lloyd booking and tracking system before sea containers will be released for preparation and loading of consignments.

Documentation provided including Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each container ensure that adequate information is available in order to identify the correct stowage and separation of dangerous goods. This information then determines the placement and segregation of the container on the vessel and handling through trans-shipment ports, if applicable.

Based on previous due diligence investigations and accounts from other consigners, Golder is satisfied that Hapag-Lloyd complies with Part 7 of the IMO DG Code.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

Hapag-Lloyd vessels have continuous means of tracking and communication during their voyages. Hapag-Lloyd Shipping has their own in-house tracking systems for tracking freight which is linked by the specific container number and BOL number. Communication equipment is tested through continuous use.

Chain of custody documentation is used by Hapag-Lloyd to prevent the loss of cargo during shipment. This documentation includes the vessel manifest and Material Safety Data Sheets (MSDS), which identifies the location and content of each container on the vessel.

Hapag-Lloyd has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their Hapag-Lloyd Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking Hapag-Lloyd Link computer system.

Hapag-Lloyd vessels are registered by the Lloyd's Register Group, which provides classification and certification of ships, and inspects and approves important components and accessories.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

All packaging and transportation of sodium cyanide is required to be in accordance with the IMO DG Code.

Hapag-Lloyd operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

Hapag-Lloyd also developed the Intelligent Planning Exchange system (IPX) stowage management system which plans and stows dangerous cargo automatically to eliminate the potential for human error.

Hapag-Lloyd has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their MSC Link computer system headquartered in Antwerp. This hazardous cargo system is initiated when hazardous cargo is booked into the container booking Hapag-Lloyd Link computer system and ensures shipments meet the IMO DG Code requirements.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

Hapag-Lloyd has set up dangerous goods cargo management centres that control the proper stowage of hazardous cargo worldwide through their Hapag-Lloyd Link computer system headquartered in Antwerp. Specialist chemists' on-hand at the centres are able to provide advice in the event of an emergency.

Hapag-Lloyd are also able to dispatch one of their eight worldwide emergency rescue teams who are experts in handling dangerous cargo and dangerous situations in the event of an emergency.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to Hapag-Lloyd's management of solid sodium cyanide product. This assessment should not be a final acceptance of Hapag-Lloyd for future work; rather it is recommended that Hebei continue to review and monitor Hapag-Lloyd's performance annually and implement an adaptive management process.

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

REFERENCES

Golder Associates (2015). International Cyanide Management Code. Australian Gold Reagents Ocean Freight Supply Chain Recertification, Detailed Audit Report – Amendment. Report number- 1521736-006A-R-Rev1

Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090

Hapag Lloyd (n.d.). Company Profile – Overview. Available at: <https://www.hapag-lloyd.com/en/about-us.htm> Accessed on 25 November 2016

Hapag Lloyd (n.d.). About Us – Sustainability and Compliance Certificates. Available at: <https://www.hapag-lloyd.com/en/about-us/sustainability/certificates.htm> Accessed on 25 November 2016

International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017

International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017

2 February 2017

Reference No. 1668932-008-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT OF CMA CGM GROUP

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of CMA CGM Group (CMA CGM) during November 2016 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to CMA CGM's management of solid sodium cyanide product. This assessment should not be a final acceptance of CMA CGM for future work; rather it is recommended that Hebei continue to review and monitor CMA CGM's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the shipping line CMA CGM, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of CMA CGM during November 2016. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of CMA CGM

The CMA CGM Group is a global logistics enterprise centered on various forms of marine transport including global logistics business and bulk energy transportation, cruises, terminal and harbor transport, shipping-related services and real estate. CMA CGM has ocean, land, and air transportation networks that extend across the globe.

CMA CGM has made adjustments to utilize its containership fleet more efficiently and respond to surges in container-shipping demand following the global recession in 2008. CMA CGM is establishing a global service-route network by creating alliances with other shipping companies to respond to the diversifying needs of customers including the GA Alliance and the G6 Alliance. The GA Alliance comprises NYK, Hapag-Lloyd, and Orient Overseas Container Line to cover the trade between Asia and the West Coast of North America, whereas the G6 Alliance includes the GA members in addition to Mitsui O.S.K. Lines, APL, and Hyundai Merchant Marine to cover the trade between Asia and Europe in addition to the trade between Asia and the East Coast of North America.

CMA CGM provides its customers with terminal and stevedoring services for containerships, pure car carriers, and cruise ships at terminals in Japan, Asia, North America, Europe, and Australia.

CMA CGM maintains global ISO 14001 certification.

As mentioned in the *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), General Guidance notes, consignors are not able to conduct inspections and checks on shipping vessels due to Port safety and security issues.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

CMA CGM is a carrier service providing international shipping of containers on a fleet of their container vessels. Containers holding sodium cyanide are placed and secured on their vessels at the loading port by the port stevedoring company or service provider. As such, CMA CGM provide a marine carrier service and all actual handling of containers (on and off vessels) is predominately undertaken by stevedoring companies at each port.

In some instances, sodium cyanide shipments are unloaded at terminals en-route to its final destination. This is known as trans-shipping and involves a temporary set down within a port facility before loading onto another vessel for continuation of the delivery. It is at the discretion of CMA CGM to determine when and where this occurs. However, through previous due diligence investigations and accounts from other consignors, Golder is satisfied that CMA CGM conducts itself in accordance with the International Maritime Organisation (IMO) Dangerous Goods (DG) Code and in a professional manner, which extends to the selection of terminals used by CMA CGM for trans-shipping.

The routes taken are not 'definitive' routes as ships can take various routes to arrive at the same destination as they take into account tides, currents, wind and storms. This is also noted in the schedules which provide estimated travel times between ports.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

CMA CGM transports sodium cyanide by sea to various destination ports. All packaging and transportation is in accordance with the IMO DG Code.

CMA CGM operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

CMA CGM operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Documentation provided includes Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port. This information then determines the placement and segregation of the container on the vessel.

Based on previous due diligence investigations and accounts from other consigners, Golder is satisfied that CMA CGM complies with Part 7 of the IMO DG Code.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

CMA CGM vessels have continuous means of tracking and communication during their voyages.

Chain of custody documentation is used by CMA CGM to prevent the loss of cargo during shipment. This documentation includes the vessel manifest and Material Safety Data Sheets (MSDS), which identifies the location and content of each container on the vessel.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

All packaging and transportation of sodium cyanide is required to be in accordance with the IMO DG Code.

CMA CGM operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

CMA CGM also operate their own safety promotion system called NAV9000. Using this system, CMA CGM aim to achieve safe, efficient operations of all vessels that transport cargo (including owned or chartered vessels). NAV9000 standards have been developed to meet international regulations. Each year auditors inspect vessels, ship-owners and ship management companies to ensure compliance with NAV9000 standards.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

CMA CGM provide regular training to increase employees' ability to respond to accidents. Training exercise involve scenarios with different vessel types and emergency situations with vessel crews, ship-management companies, government agencies, customers, and other interested parties invited to participate in the training exercises.

CMA CGM has an emergency response network based on four overseas regional blocs that are ready to mobilize for maritime accidents and problems around the world. This includes Europe/Africa, Oceania/South Asia, East Asia, and North America/Latin America.

CMA CGM also operate their own safety promotion system called NAV9000. Using this system, CMA CGM aim to achieve safe, efficient operations of all vessels that transport cargo (including owned or chartered vessels). NAV9000 standards have been developed to meet international regulations. Each year auditors inspect vessels, ship-owners and ship management companies to ensure compliance with NAV9000 standards.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find issues of concern in regards to CMA CGM's management of solid sodium cyanide product. This assessment should not be a final acceptance of CMA CGM for future work; rather it is recommended that Hebei continue to review and monitor CMA CGM's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-008-l-rev0 dd cma cgm group.docx

REFERENCES

CMA CGM (2016). About Us - a leading worldwide shipping group. Available at: <https://www.cma-cgm.com/the-group/about-us/presentation> Accessed 24 November 2016

CMA CGM (2016). Environment and Sustainability. Available at: <https://www.cma-cgm.com/the-group/corporate-social-responsibility/environment> Accessed 24 November 2016

CMA CGM (2016). Safety and Security. Available at: <https://www.cma-cgm.com/the-group/corporate-social-responsibility/safety-security> Accessed 24 November 2016

Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090

International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017

International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017



APPENDIX B

Port Due Diligence Assessments

3 February 2017

Reference No. 1668932-002-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF TIANJIN, CHINA

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Port of Tianjin, China during February 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

The due diligence notes that while there appear to be measures in place to manage and store hazardous materials including sodium cyanide at the Port of Tianjin, the investigation into the 12 August 2015 fire and explosions at the Port of Tianjin identified a number of significant issues relating to the handling and storage of dangerous goods. As the Accident Investigation Report relating to the incident was only released in February 2016, it is unlikely that all the measures and recommendations outlined in the report have yet been put in place.

It is also noted that the Port of Tianjin reportedly stopped accepting hazardous cargo following the incidents and it is unclear whether the Port of Tianjin has since recommenced the import/export of hazardous cargo. To undertake this due diligence, Golder has assumed that the Port of Tianjin is again able to handle the import/export of hazardous cargo.

Due to recent events at the Port of Tianjin and subsequent changes made to dangerous goods storage, security and handling, the Auditor recommends that Hebei undertakes annual reviews at the Port of Tianjin to monitor the management of dangerous goods.



Due the paucity of data available on the facility, it is recommended that product be coordinated to minimise the time spent at the port.

This assessment should not be a final acceptance of the Port of Tianjin for future work; rather it is recommended that Hebei continue to review and monitor the Port of Tianjin's performance annually and implement an adaptive management process.

1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Tianjin, China, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Dakar, Senegal during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

1.1 Overview of Port of Tianjin, China

The Port of Tianjin is the largest man made sea port in mainland China and forms an important trade port between northern China and north-east, central and western Asia. Located 160 km from Beijing and 60 km from the city centre of Tianjin, it covers a land area of 131 square km, and land and sea area of 336 square km.

The Port of Tianjin is composed of five primary port areas:

- Tianjin North Port – operation of containers and general cargoes
- Tianjin South Port – dry bulk and liquid bulk cargoes
- Tianjin East Port – container terminal operation and modern services of international shipping, logistics, trade and off-shore finance
- South Zone of Harbor Economic Area – heavy equipment manufacturing, new energy, food and light industry
- East Zone of Nangang Port – new port area for bulk cargo of coal and ore.

There are 173 different vessel berths in Tianjin Port. In 2013, the cargo throughput of Tianjin Port exceeded 500 million tonnes and container throughput exceeded 13 million twenty-foot equivalent units (TEU). By 2017, the cargo throughput of Tianjin Port will exceed 600 million tonnes and container volume will surpass 20 million TEUs.

China is a Category A member of the International Maritime Organization (IMO) Council and a signatory to the Tokyo MoU, and as such strictly performs its Port State obligations, supervises foreign ships in Chinese waters and promotes compliance with international conventions among Flag States through Port State Control (PSC).

Tianjin Port (Group) Co Ltd (TPG) is the main body of Tianjin Port and owns the majority of the Port of Tianjin's main terminals. The Port of Tianjin's terminals are operated by autonomous companies that are mostly either fully owned by, or are joint ventures with, Tianjin Port Holdings Company (TPC) or Tianjin Port Development Company (TPD).

The TPG's Operations Department coordinates the operation of the Port, and must be informed of all ship movements and major operations. The production schedule (ship movement plan) is arranged by the TPG Dispatch Control Center in coordination with the wharf operators, the MSA, and the pilot center. The Dispatch Center organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

On 12 August 2015, a fire and subsequent explosions occurred at a dangerous goods warehouse located in the Tianjin Binhai New Area of the Port of Tianjin, killing 165 people and resulting in significant infrastructure and property damage. The Accident Investigation Report released in February 2016 by the Chinese government identified that Ruihai (owners of the warehouse facility) were in serious violation of laws and regulations relating to the storage and management of dangerous goods. A number of the investigation recommendations included changes to port security, stricter regulation and monitoring of hazardous chemicals, and to strengthen emergency response capabilities.

Following the incidents, it was reported that the Port of Tianjin stopped accepting hazardous cargo, including import and export cargo, instead hazardous cargo arriving at the Port of Tianjin was allowed to be re-stowed. It is unclear whether the Port of Tianjin has since begun accepting the import/export of hazardous cargo again; this due diligence assumes the Port of Tianjin is currently accepting hazardous materials including sodium cyanide.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the shipping services available to service the intended target market. The Port of Tianjin is located in relative close proximity to the cyanide manufacturers, is connected to a well-developed intermodal transportation system consisting of railways, highways, waterways and pipelines, and is serviced by shipping companies that have routes to over 600 ports in 180 countries, including routes to South America.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Tianjin. The due diligence was completed based on information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The China Maritime Safety Administration (MSA) develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

Tianjin Maritime Safety Bureau is the local agency of the MSA and is responsible for enforcing regulations on the MSA's behalf at the Port of Tianjin.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

The Tianjin Emergency Response Plan for Hazardous Chemical Incidents at Sea was established by the City of Tianjin, this plan covers emergency response procedures for the incidents of fire, explosion and leakage during the transportation of hazardous chemicals at sea. The Plan details the procedures for evacuation, maintaining vigilance, rescue methods, traffic and fire control, leakage containment, monitoring and pollutant clean-up in the event of an emergency.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the MSA by submitting the MSA's Transport Document for Goods by Sea (Package) form to the MSA before arriving/leaving at the port.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The TPG's Operations Department coordinates the operation of the Port, and must be informed of all ship movements and major operations. The production schedule (ship movement plan) is arranged by the TPG Dispatch Control Center in coordination with the wharf operators, the MSA, and the pilot center. The Dispatch Center organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest and Material Safety Data Sheets (MSDS), which identifies the location and content of each container on the vessel.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

The Port of Tianjin has restricted access. The Dispatch Center organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

The Port operations for dangerous goods are registered and licensed by the Government. Containers departing the Port are checked against documentation for matching container numbers and product detail. All sodium cyanide transited through the Port of Tianjin remains within its sealed containers at all times.

The Tianjin Maritime Safety Bureau is the local agency of the MSA and is responsible for enforcing regulations on the MSA's behalf at the Port of Tianjin, this includes conducting inspections on containers holding dangerous goods.

The Accident Investigation Report relating to the 12 August 2015 fire and explosions at the Port of Tianjin, recommended, amongst other things, changes to port security, and stricter regulation and monitoring of hazardous chemicals. It was also noted that hazardous chemicals had previously been stored in areas not designated to hold such materials.

The Regulation of Safety Management of Hazardous Chemical Enterprises in Tianjin City was put into practice on September 6, 2015, these regulations cover the detailed requirements of production, storage, use, operation and transportation of dangerous chemicals. The regulations now point out that dangerous chemicals shall be stored in specialised warehouses or storage rooms, that stored dangerous goods must be classified and segregated within the storage area and that maximum allowable storage limits for individual chemicals must not be exceeded.

The Port developed and commissioned an autonomous air quality monitoring system in December 2015. Captured monitoring data is now publicly available via an official website of the Municipal Environmental Protection Bureau.

After the incident on 12 August 2015, the government of Tianjin City has implemented several emergency environmental response activities, these are:

- a) Gridding monitoring, conducted for atmosphere and soil samples to confirm the contamination level and spread
- b) Treatment by hydrogen peroxide for areas affected by the leaked cyanide
- c) Blockage of stormwater and sewage discharge points to avoid cyanide-contaminated water being discharged to the sea or other water bodies
- d) Development of an emergency wastewater treatment facility (WWTF) built for the cyanide-contaminated water generated in the incident, and
- e) Continuity monitoring regimes for stormwater, wastewater, wastewater treatment plant outlets and surrounding water bodies.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

China is a Category A member of the IMO Council and complies with the requirements of the IMO DG Code.

The Tianjin Emergency Response Plan for Hazardous Chemical Incidents at Sea was established by the City of Tianjin, this plan covers emergency response procedures for the incidents of fire, explosion and leakage during the transportation of hazardous chemicals at sea. The Plan details the procedures for evacuation, maintaining vigilance, rescue methods, traffic and fire control, leakage containment, monitoring and pollutant clean-up in the event of an emergency.

The Tianjin Maritime Safety Bureau is the local agency of the MSA and must be contacted in all incidents of hazardous substance spills.

The Tianjin Maritime Search and Rescue Center is responsible for coordinating all search and rescue activities inside the Port. The Tianjin Port PSB Fire Services Detachment holds the fire-fighting equipment and is responsible for fire prevention duties for both the land and water areas of the Port of Tianjin. The Tianjin Port Hospital is the primary provider of emergency medical care and resources.

3.0 CONCLUSION

The due diligence notes that while there appear to be measures in place to manage and store hazardous materials including sodium cyanide at the Port of Tianjin, the investigation into the 12 August 2015 fire and explosions at the Port of Tianjin identified a number of significant issues relating to the handling and storage of dangerous goods. As the Accident Investigation Report relating to the incident was only released in February 2016, it is unlikely that all the measures and recommendations outlined in the report have yet been put in place.

It is also noted that the Port of Tianjin reportedly stopped accepting hazardous cargo following the incident and it is unclear whether the Port of Tianjin has since recommenced the import/export of hazardous cargo. To undertake this due diligence, Golder has assumed that the Port of Tianjin is again able to handle the import/export of hazardous cargo.

Due to recent events at the Port of Tianjin and subsequent changes made to dangerous goods storage, security and handling, the Auditor recommends that Hebei undertakes annual reviews at the Port of Tianjin to monitor the management and handling of dangerous goods.

Due the paucity of data available on the facility, it is recommended that product be coordinated to minimise the time spent at the port.

This assessment should not be a final acceptance of the Port of Tianjin for future work; rather it is recommended that Hebei continue to review and monitor the Port of Tianjin's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-002-l-rev0 dd port tianjin, china.docx

REFERENCES

British International Freight Association (2016). *China's New Restrictions on Hazardous Cargo in Response to Explosion at Port of Tianjin*. Available at: <http://www.bifa.org/news/articles/2015/sep/china-s-new-restrictions-on-hazardous-cargo-in-response-to-explosion-at-port-of-tianjin>. Accessed 25 February 2016.

China Daily (2012). *Advantages, About Tianjin Port*. Tianjin Port, Tianjin Port (Group) Co., Ltd. Available at: http://www.chinadaily.com.cn/m/tianjinport/2013-03/25/content_16342937.htm. Accessed 23 February 2016.

International Maritime Organisation (2016). *Maritime Security and Piracy*. Available at: <http://www.imo.org/en/OurWork/Security/Pages/MaritimeSecurity.aspx>. Accessed 24 February 2016.

Maritime Safety Administration of the People's Republic of China (n.d.). *Emergency Response, Safety and Environment Protection, Legislations*. Available at: <http://en.msa.gov.cn/index.php?m=content&c=index&a=lists&catid=285>. Accessed 23 February 2016.

Tianjin People's Republic of China Maritime Safety Administration (no date). *Tianjin Port*. Translated to English via Google. Available at: <http://www.tjmsa.gov.cn/>. Accessed 24 February 2016.

Tour-Beijing (2016). *Tianjin Port*. Available at: http://www.tour-beijing.com/xingang_beijing/tianjin_port.php#.Vs0yzv7UgdU. Accessed 23 February 2016.

Xinhua News Agency (2016). *Tianjin Port special major fire and explosion accident investigation report "8.12" storage of dangerous goods Ruihai company announced*. State Administration of Work Safety. Translated to English via Google. Available at: http://www.chinasafety.gov.cn/newpage/Contents/Channel_21356/2016/0205/264729/content_264729.htm. Accessed 23 February 2016.

Baidu Wenku (n.d.). *Tianjin Emergency Response Plan of Hazardous Chemicals Incidents on Sea*. Available at: http://wenku.baidu.com/link?url=nJ8WkZ0-z7vofYK-hFcq4Wn-luH16UxDPTb5Jj62olnpbt3f0BuncZOondw1LRertoLShg4-wy8LOdD9zXp2mz5OsLun_g3l0IMFqbJDw-O. Accessed 3 December 2016.

Government Website of Tianjin Binhai New Area (2014). *Implementation Plan of Compilation of Emergency Response Plans of Tianjin Binhai New Area*. Available at: http://www.bh.gov.cn/html/ZFB/GGL21817/2015-01-21/Detail_578798.htm. Accessed 3 December 2016.

Tencent News (2015). *Treatment Measures for Cyanide in Tianjin Explosion Incident Was Confirmed*. Available at: <http://news.qq.com/a/20150816/025764.htm>. Accessed 8 December 2016.

Official Site of Tianjin Port, available at: <http://www.ptacn.com/detailListAction.do?searchFlag=1&typeId=9>

The Regulation of Safety Management of Hazardous Chemical Enterprises in Tianjin City, published at: <http://www.tjsafety.gov.cn/tj/zhengcefagui/falvwenjian/8845.html>

2 February 2017

Reference No. 1668932-003-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF QINGDAO, CHINA

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Port of Qingdao, China during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Qingdao's management of solid sodium cyanide product. However, due to recent events at the Port of Tianjin and subsequent changes made to dangerous goods security and handling, the Auditor recommends that Hebei undertakes annual reviews at the Port of Qingdao to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Qingdao for future work; rather it is recommended that Hebei continue to review and monitor the Port of Qingdao's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Qingdao, China, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of Port of Qingdao, China, during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Qingdao, China

The Port of Qingdao is located between the Bohai Rim port region and the Yangtze River Delta port region and is an important hub for international trade and transportation in the West Pacific, maintaining shipping routes to over 700 ports in over 180 countries and regions around the world.

The Port of Qingdao is composed of four primary port areas:

- Dagang Port Area – four terminals with 18 berths operated by the Dagang Branch, primarily for handling steel, aluminium oxide, grains, bauxite, fertiliser, metal ore, coal and other general cargo
- Qianwan Port Area – ten terminals with 36 berths operated through the Qiangang Branch (joint venture between QQCT and West United), primarily for containers, metal ore, coal, pulp and other general cargo
- Huangdao Oil Port Area – five terminals with 11 berths operated through the joint venture Qingdao Shihua, primarily for liquid bulk cargo.
- Qingdao New Port Area (Dongjiakou Port Area) – one terminal with two berths operated by the joint venture Huaneng Qingdao, primarily for handling metal ore, coal and other general cargo.

Qingdao Port International Co Ltd is the primary operator of the Port of Qingdao providing port-related services ranging from basic port services, such as stevedoring and storage services, to ancillary and extended services such as logistics services and financing-related services. In 2015, the cargo throughput of the Port of Qingdao exceeded 17 million twenty equivalent units (TEU).

The Port of Qingdao also serves as a container transshipment hub for ports in the Bohai Rim region, along the Yangtze River, as well as in Japan and South Korea.

In addition to stevedoring services, the Port of Qingdao provides assorted port services for containers, including short-term storage, vanning and de-vanning, and container repair services. Specialised storage services for containers with non-standard goods, such as frozen goods and hazardous substances are also offered at the Port of Qingdao.

On 12 August 2015, a fire and subsequent explosions occurred at a dangerous goods warehouse located in the Tianjin Binhai area of the Port of Tianjin, China. Following these incidents, the Port of Qingdao was temporarily suspended from storing hazardous cargo of Class 2.1, Class 4 (excluding sulfur, UN1350/CLS4.1) & Class 5 (UN2465 and UN2468) in their hazardous warehouse (including transshipment and importing). Following a review of dangerous goods security and handling by The Qingdao Port (Group) Co and by individual freight companies, the Port of Qingdao was again authorised to receive and export dangerous goods including Sodium Cyanide.

China is a Category A member of the International Maritime Organization (IMO) Council and a signatory to the Tokyo MoU, and as such performs its Port State obligations, supervises foreign ships in Chinese waters, and promotes compliance with international conventions among Flag States through Port State Control (PSC).

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

The international sales and exports of sodium cyanide take into consideration the shipping services available to service the intended target market. The Port of Qingdao is located in relative close proximity to the cyanide manufacturers, is connected to a well-developed intermodal transportation system consisting of railways, highways, waterways and pipelines, and is serviced by shipping companies that have routes to over 700 ports in 180 countries, including routes to South America.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

It was not possible during this due diligence to physically inspect the Port of Qingdao. The due diligence was completed based on information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The China Maritime Safety Administration (MSA) develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

The manifests that are provided to the vessel Master contain emergency response information.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

The Logistics Branch of Qingdao Port International Co., LTD, is responsible for developing and implementing emergency response plans including the Production Safety Emergency Response Plan, and Dangerous Goods Yards Safety Emergency Response. The Safety Production Supervision and Administration Bureau of Qingdao Municipality reviews emergency response plans to ensure they are in compliance with statutory requirements.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

The production schedule (ship movement plan) is arranged by the Qingdao Port International Co Ltd Dispatch Control Centre in coordination with the wharf operators, the MSA and the pilot centre. The Dispatch Centre organises ship movements, tracks pilotage operations and supervises terminal operations via real-time CCTV monitoring.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

The Port of Qingdao has restricted access. The Dispatch Centre organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

The Port of Qingdao has dedicated storage areas for specialised products including dangerous goods. The port operations for dangerous goods are registered and licensed by the government. Containers departing the port are checked against documentation for matching container numbers and product detail.

All sodium cyanide transited through the Port of Qingdao remains contained within its sealed containers at all times.

On the 12 August 2015, a fire and subsequent explosion occurred at a dangerous goods warehouse located in the Tianjin Binhai area of the Port of Tianjin, China. Following these incidents, the Port of Qingdao was temporarily suspended from storing hazardous cargo of Class 2.1, Class 4 (excluding sulfur, UN1350/CLS4.1) and Class 5 (UN2465 and UN2468) in their hazardous warehouse.

Following a review of dangerous goods security and handling by The Qingdao Port and individual freight companies, the Port of Qingdao was again authorised to receive and export dangerous goods including Sodium Cyanide.

After the incident on 12 August 2015 in Tianjin, the Port of Qingdao proposed several new measures to reinforce dangerous goods management and handling, these are as follows:

- a) Comprehensively assess the management status of dangerous goods. Analyse the category, quantity and name of dangerous goods containers. Assemble experts to diagnose and assess the status of operation compliance, equipment, safety management, work safety standardisation, and emergency management.
- b) Store dangerous goods containers in assigned and separated sub-districts according to the characteristic of dangerous goods.
- c) Establish a dangerous goods supervisory platform at the Port of Qingdao. Include all working data and on-site video link of dangerous goods operation into the platform, and ensure real-time supervision of check-in, check-out and storage locations of dangerous goods.
- d) Stop the operation of ammonium nitrate in the old Port area, restrict the storage volume and time for dangerous goods of flammable gas Class II and flammable liquid Class III within the Port, and prohibit the storage of high risk dangerous goods containers within the Port.
- e) Report the category, amount, characteristic and emergency response measures of dangerous goods to the Public Security Department and Fire Safety Department. The Public Security Department and Fire Safety Department is to inspect the Port regularly.
- f) Create an expert team for dangerous goods management and establish detailed and effective management plans and preventive measures, and
- g) Continually enhance the safety training of relevant staff.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

China is a Category A member of the IMO Council and complies with the accordance with the IMO DG Code.

Emergency response plans are in place at the Port of Qingdao. The Logistics Branch of Qingdao Port International is responsible for developing and implementing emergency response plans including the Production Safety Emergency Response Plan and Dangerous Goods Yards Safety Emergency Response. The Safety Production Supervision and Administration Bureau of Qingdao Municipality reviews emergency response plans to ensure they are in compliance with statutory requirements. According to the 2015 Annual Report of Qingdao Port International, 142 specialised training classes on dangerous goods for working staff and 26 emergency drills have been carried out in 2015.

Qianwan Port Area conducts emergency response drills to maintain the preparedness capabilities and quick response times of Emergency Response Personnel in the event of a Dangerous Goods Leakage situation.

The Shandong Search and Rescue Centre is responsible for coordinating all search and rescue activities in the Port of Qingdao waters.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Qingdao's management of solid sodium cyanide product. However, due to recent events at the Port of Tianjin and subsequent changes made to dangerous goods security and handling, the Auditor recommends that Hebei undertakes annual reviews at the Port of Qingdao to monitor the management of dangerous goods.

It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

This assessment should not be a final acceptance of the Port of Qingdao for future work; rather it is recommended that Hebei continue to review and monitor the Port of Qingdao's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

REFERENCES

- British International Freight Association (2016). *China's New Restrictions on Hazardous Cargo in Response to Explosion at Port of Tianjin*. Available at: <http://www.bifa.org/news/articles/2015/sep/china-s-new-restrictions-on-hazardous-cargo-in-response-to-explosion-at-port-of-tianjin>. Accessed 25 February 2016.
- Cheong Wa Hong Kong Freight (2000). *Risk North buffer site security management requirements*. 18 February 2000.
- Cheong Wa Hong Kong Zi (2015). *The Qingdao port group on the issuance of the Declaration on the enhancement of dangerous goods, Container security management in accordance with the relevant provisions of the notification*. The Qingdao port (group) co., ltd. File. Cheong Wa Hong Kong Zi (2015) No. 327.
- International Maritime Organisation (2016). *Maritime Security and Piracy*. Available at: <http://www.imo.org/en/OurWork/Security/Pages/MaritimeSecurity.aspx>. Accessed 25 February 2016.
- Maritime Safety Administration of the People's Republic of China (no date). *Emergency Response, Safety and Environment Protection, Legislations*. Available at: <http://en.msa.gov.cn/index.php?m=content&c=index&a=lists&catid=285>. Accessed 26 February 2016.
- Qinggang Freight (2016). *Regarding the Strengthening of dangerous goods container yard on the north side of the regional Security Management Notification*. The Group of the Ministry of TCDC. 25 February 2016.
- Qingdao International Freight logistics Co., Ltd. (2015). *Qinggang freight company Dangerous Goods Management Approach In January (2016)*.
- Qingdao Port International Limited (2013). *Emergency Response Plan Review Comments Form for Logistics branch of Qingdao Port International Co., LTD.*
- Qingdao Port International Limited (2014). *Corporate Profile*. Available at: <http://www.qingdao-port.com/en/>. Accessed 26 February 2016.
- Qingdao Port International Limited (2014). *Qingdao Port International Co., LTD. Logistic Branch – Dangerous Goods Container Yard Project Safety Status Assessment Report*.
- Qingdao Port and Shipping Authority Transportation Authority (2014). *Port Safety Assessment Report Registration Form for Record*. Applicant: Qingdao Port International Co., LTD. Approved by: Qingdao Port and Shipping Authority Transportation Authority, 5 September 2014.
- Safety Production Supervision and Administration Bureau of Qingdao Municipality (2013). *Production Safety Emergency Response Plan Registration Form For Record*. Applicant: Qingdao Port International Co., LTD. Approved by: Safety Production Supervision and Administration Bureau of Qingdao Municipality, 5 August, 2013.
- Shandong Feite Group (2012). *Safety Assessment Organization – Enterprise's Qualification Certificate*. Qingdao Port International Limited.
- Qingdao Port International Co., Ltd (2015). *2015 Annual Report of Qingdao Port International Co., LTD*. Available at: http://www.qingdao-port.com/attachment/download_succEnFile.do?enzx.zxid=1AC4DBFF1F894D6BBFF34F69C9745A8B. Accessed 12 December, 2016.
- Qingdao Daily News (2015-08-21). *Qingdao Port Takes Preventive Measures and Store Dangerous Goods in assigned and separated sub-districts* Available at: http://news.dailyqd.com/2015-08/21/content_269444.htm Accessed 12 December, 2016.
- Qingdao City Emergency Management Office. *Huanggang District Conducts An Emergency Drill Against Dangerous Goods Leakage*. Available at: <http://www.qdemo.gov.cn/n32206058/n32206114/161013163259691303.html> Accessed 22 January, 2017.

2 February 2017

Reference No. 1668932-004-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF SHANGHAI, CHINA

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of Port of Shanghai, China during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Shanghai's management of solid sodium cyanide product. However, due to recent events at the Port of Tianjin and subsequent changes made to dangerous goods security and handling, the Auditor recommends that Hebei undertakes annual reviews at the Port of Shanghai to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Shanghai for future work; rather it is recommended that Hebei continue to review and monitor the Port of Shanghai's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Shanghai, China, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of Port of Shanghai, China, during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Shanghai, China

The Port of Shanghai is situated in the middle of the Chinese coastline, where the Yangtse River, known as "the Golden Waterway", flows into the sea. It is the meeting point in the T-shaped waterway network composed by the east-west Yangtse River and the south-north coastline, and is also China's largest comprehensive port and one of the country's most important gateways for foreign trade.

The Port of Shanghai is composed of multiple port areas which are designated as follows:

- The shore of Huangpu River: such as Zhanghuabang, Jungong Road, Gongqing, and Longwu port areas etc.
- The south shore of Yangtze River: such as Baoshan, Luoqing, and Waigaoqiao port areas etc.
- Hangzhou Bay: Yangshan Port Area.

Bulk cargo terminals are located at Luoqing, Wusong, and Longwu port areas. The container terminals are located at Yangshan, Waigaoqiao, and Wusong with a total of 46 berths. Yangshan, Waigaoqiao, and Wusong port areas are inter-connected via fast waterway and road transportation. Yangshan and Waigaoqiao are the primary terminals of the Shanghai Port. The main cargos handled by the Shanghai Port include food, coal, timber, metal ore, petroleum and its products, steel, mining materials, machinery and equipment and bulk groceries.

Shanghai International Port (Group) Co., Ltd (SIPG) is the primary operator of the Port of Shanghai providing port-related services ranging from basic port services, such as stevedoring and storage, to ancillary and extended services such as logistics and financing. In 2015, the cargo throughput of the Port of Shanghai reached 717 billion tons.

The Port of Shanghai also serves as a container transshipment hub for ports in the Yangtze River Delta, as well as in Japan and South Korea.

In addition to stevedoring services, the Port of Shanghai provides assorted port services for containers, including short-term storage, vanning and de-vanning and transfer services. Specialised storage services for containers with non-standard goods, such as frozen goods and hazardous substances are also offered at the Port of Shanghai.

On 12 August 2015, a fire and subsequent explosion occurred at a dangerous goods warehouse located in the Tianjin Binhai area of the Port of Tianjin, China.

China is a Category A member of the International Maritime Organization (IMO) Council and a signatory to the Tokyo MoU, and as such performs its Port State obligations, supervises foreign ships in Chinese waters, and promotes compliance with international conventions among Flag States through Port State Control (PSC).

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

The international sales and exports of sodium cyanide take into consideration the shipping services available to service the intended target market.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response. The Port of Shanghai is situated in the middle of the Chinese coastline. Internally, waterways, road, and railway transportation networks are very convenient for the Shanghai Port. The transport networks stretch to the Yangtze River Basin and even the whole country. Externally, the Port is close to the global routes. It is serviced by shipping companies that have routes to over 200 countries.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

It was not possible during this due diligence to physically inspect this facility. The due diligence was completed based on information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The China Maritime Safety Administration (MSA) develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

Dangerous goods are stored in the Yangshan Port area. Yangshan Port has an established emergency management committee to manage emergency related issues, such as establishing emergency response plans, conducting regular emergency drills, assessing and controlling the risks associated with handling dangerous goods and preparing emergency supplies. The Safety Production Supervision and Administration Bureau of Shanghai Municipality reviews emergency response plans to ensure they are in compliance with statutory requirements.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the port.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

Port stevedores receive the vessels manifest on arrival which includes the containers for unloading and handling by them. This information is then captured in the stevedores management systems which assists with the location where each container from the vessel is to be placed after unloading. Transport from the unloading berth to the interim storage facility is controlled by documentary checks detailing the container details and the containers contents.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo to the MSA by submitting the MSA's *Transport Document for Goods by Sea (Package)* form to the MSA before arriving/leaving at the Port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

Shipping containers containing composite intermediate bulk containers (IBCs) are placarded in accordance with the IMO DG Code labelling requirements displaying relevant warning and safety information including the environmentally hazardous substance label. Signage prohibiting smoking, open flames and eating and drinking are in place, as well as PPE requirements.

The Port of Shanghai has a dedicated dangerous goods transit area for dangerous goods awaiting loading to arriving vessels. Appropriate signage, as outline in 1.5, is displayed in this area. The port operations for dangerous goods are registered and licensed by the government. The port has in place minimum requirements for personal protective equipment that includes the requirements for suitable protective footwear, safety helmet where required and readily visible clothing.

The Port is listed on the International Ship and Port Facility Security (ISPS) site as accredited. An electronic card access system is in place to enable only authorised access to the Port area. Containers departing the port are checked against documentation for matching container numbers and product detail.

All sodium cyanide transited through the Port of Shanghai remains contained within its sealed containers at all times and are placed in an area that is well ventilated to prevent the build-up of hydrogen cyanide gas. The area where the containers are placed is considered suitable to contain effectively any spillage that may happen.

The Port took several measures to enhance the management of dangerous goods, such as the followings:

- Inspecting the licenses of operators and equipment
- Inspecting and replenishing the emergency supplies
- Inspecting and maintaining the fire protection equipment, CCTV, and fence for dangerous goods
- Training staff involving dangerous goods on emergency equipment using, and
- Conducting emergency drills.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

China is a Category A member of the IMO Council and complies with the accordance with the IMO DG Code.

The Port of Shanghai has a basic emergency response by following the IMO DG requirements. Additionally, the Port of Shanghai has facility specific emergency response plans indicating that the port has an internal emergency response capability that can provide basic response to incidents involving dangerous goods. According to the 2015 Sustainable Development Report of SIPG, the Port has arranged emergency drills on emergency equipment usage and dangerous goods leakage for all related operating personnel and administrative staff.

Dangerous goods are stored in the Yangshan Port area. Yangshan Port has an established emergency management committee to manage emergency related issues, such as establishing emergency response plans, conducting regular emergency drills, assessing and controlling the risks associated with handling dangerous goods and preparing emergency supplies. The Safety Production Supervision and Administration Bureau of Shanghai Municipality reviews emergency response plans to ensure they are in compliance with statutory requirements.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Shanghai's management of solid sodium cyanide product. However, due to recent events at the Port of Tianjin and subsequent changes made to dangerous goods security and handling, the Auditor recommends that Hebei undertakes annual reviews at the Port of Shanghai to monitor the management of dangerous goods.

It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

This assessment should not be a final acceptance of the Port of Shanghai for future work; rather it is recommended that Hebei continue to review and monitor the Port of Shanghai's performance and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

REFERENCES

- British International Freight Association (2016). *China's New Restrictions on Hazardous Cargo in Response to Explosion at Port of Tianjin*. Available at: <http://www.bifa.org/news/articles/2015/sep/china-s-new-restrictions-on-hazardous-cargo-in-response-to-explosion-at-port-of-tianjin>. Accessed 25 February 2016.
- Cheong Wa Hong Kong Freight (2000). *Risk North buffer site security management requirements*. 18 February 2000.
- International Maritime Organisation [IMO] (2016). *Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide*. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation (2016). *Maritime Security and Piracy*. Available at: <http://www.imo.org/en/OurWork/Security/Pages/MaritimeSecurity.aspx>. Accessed 25 February 2016.
- Maritime Safety Administration of the People's Republic of China (no date). *Emergency Response, Safety and Environment Protection, Legislations*. Available at: <http://en.msa.gov.cn/index.php?m=content&c=index&a=lists&catid=285>. Accessed 26 February 2016.
- Qinggang Freight (2016). *Regarding the Strengthening of dangerous goods container yard on the north side of the regional Security Management Notification*. The Group of the Ministry of TCDC. 25 February 2016.
- Yangshan Port Area (2016). *Emergency Response Plan of Yangshan Port Emergency Management Unit (2016)*. Available at: <http://www.shanghai.gov.cn/shanghai/node2314/node2319/n31973/n32019/n32027/u21ai1024550.shtml> Accessed 24 January 2017.
- FSOO.COM. *Port of Shanghai*. Available at: <http://www.ufsoo.com/port/shanghai/> Accessed 24 January 2017.
- Shipping China. *Shanghai Port*. Available at: <http://info.shippingchina.com/chinaport/index/detail/id/599.html> Accessed 24 January 2017.

2 February 2017

Reference No. 1668932-009-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF TEMA, GHANA

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Tema, Ghana during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of the Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the port of Tema found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Tema for future work; rather it is recommended that Hebei continue to review and monitor the Port's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Tema, Ghana, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a due diligence of the Port of Tema, Ghana, during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to guide the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Tema, Ghana

The Port of Tema is the largest port in Ghana and located 30 km from Accra. The Port handles about 12 million tonnes of cargo annually and receives over 1650 vessel calls per year, including container vessels, general cargo vessels, tankers, Ro-Ro and cruise vessels.

Tema Port is the main container Port servicing Ghana and its neighbouring landlocked countries. The port area includes a 1 million twenty-foot equivalent units (TEU) container terminal, a fishing harbour, a shipyard with the largest dry dock in West Africa and a range of deep-water berths. In 2016 Tema Port completed expansion projects, including a new dedicated 840 point reefer terminal and a 450 m long by 50 m wide bulk jetty, which increases the port's berthing capacity from 14 to 16 berths.

Cyanide manufacturers and suppliers have the ability to ship product to the Port from different parts of the world. The Port allows unloading of the shipments for the final road transport to mining operations in Ghana and landlocked countries within the West Africa region.

The Ghana Ports and Harbour Authority (GPHA) oversees Port operations. This includes:

- Management of the Port protocols for docking for vessels, e.g. use of Pilots; use of tug boats; different weather conditions, tides, currents; safety; and general Port operations. This sees to the safe docking and turnaround of the vessels in and out of the Port.
- Entry into Port is controlled by the Port's harbour master who understands the Port protocols and unique issues regarding the approach and docking of a vessel at the Port. The harbour master has oversight of nautical operations within the Port. This comprises operational tasks related to the safety and efficiency of vessel management within the boundaries of the port. The harbour master's office allocates berths and coordinates all services necessary to berth and un-berth a vessel. These services include pilotage, towage, mooring and unmooring, and vessel traffic service.

- The Ship's Captain works in conjunction with the harbour master as he understands his vessel and can implement and assist with the harbour master's instructions.
- The approach of the vessel to the Port will take into any account any channels, special navigation points and as mentioned above the currents, tides and weather.
- The GPHA manages the handling of dangerous goods through the Tema Port.

Stevedoring services are provided by the GPHA and ten private stevedoring companies. GPHA controls 25% of all stevedoring. The remaining 75% is performed by the private companies.

The dedicated 1 million TEU container terminal is operated by Meridian Port Services (MPS). MPS operations include:

- Handling of the containers whether full or empty on and off the vessels; container storage areas; port security, emergency response, control systems for companies and their vehicles collecting and or delivering containers
- Software programs control container movement through the Ports. In the case of the sodium cyanide containers on arrival the Ports the containers are stacked separately and segregated from other containers. The software also monitors the restricted time allowed for dangerous goods to be handled through the Port and allows the Port to charge penalty rates for goods not cleared and taken from the Port within a defined time.

Ghana is a member of the International Maritime Organization (IMO) Council and is party to the Abuja Memorandum of Understanding, and as such performs its Port State obligations, supervises foreign ships that berth at Ghana ports, and promotes compliance with international conventions among Flag States through Port State Control.

GPHA operates an integrated management system in line with requirements of ISO 9001: 2015, ISO 14001: 2015 and OHSAS 18001:2007. GPHA went through and passed an IMS audit in December 2016

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases.

The international sales and exports of sodium cyanide take into consideration the shipping services available to service the intended target market. The Port of Tema is located in relative close proximity to mining operations in Ghana and landlocked countries within the West Africa region. The Port is serviced by major international shipping companies with the ability to offer scheduled container services and provide the correct manifest documentation to the destination port which provides them with a list of the cargo types and in the case of sodium cyanide and any other hazardous cargo the number and reference of the containers.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air.

It was not possible during this due diligence to physically inspect this facility. The due diligence was completed based on information and experience obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

The international standards for the shipment of cyanide by sea, as described in 1.5, are followed by the Port.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Ghana Maritime Authority (GMA) monitors, regulates and coordinates activities in the maritime industry in Ghana. Functions of the GMA include implementing the provisions of the *Ghana Shipping Act 2003* and *Ghana Maritime Security Act 2004 (Act 675)*, ensuring safety and security of ships and port facilities, fulfilling flag state and port state responsibilities and monitoring conformance with standards laid down by international maritime conventions. Ghana is a member of the IMO.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security. In Ghana, Act 675 implements the ISPS Code.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

At Tema Port the GPHA is responsible for maintenance of safety standards and international maritime codes, including the ISPS Code and the International Maritime Dangerous Goods (IMDG) Code. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods and inspecting containers holding dangerous goods. Vessels are required to declare dangerous cargo to the GPHA by submitting the appropriate form to the GPHA at least 72 hours before arriving at the Port of Tema. All dangerous goods delivered to or from the port are required to be appropriately manifested and be packaged, marked, labelled and placarded in accordance with the IMDG Code.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Vessels are required to declare dangerous goods to the GPHA at least 72 hours before arriving at the Port of Tema. All dangerous goods delivered to or from the port are required to be appropriately manifested and be packaged, marked, labelled and placarded in accordance with the IMDG Code. The port requires all packages to be in sound and safe condition without any risk of leakage or spillage.

To comply with requirements of the IMDG Code, the Port of Tema has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.

The Port requires advance notice of 72 hours prior to the estimated arrival of vessels. The harbour master has oversight of nautical operations within the Port, including pilotage, towage, mooring and unmooring, and vessel traffic services. Software programs control container movement through the Ports.

Port stevedores receive the vessels manifest on arrival, which includes the containers for unloading and handling by them. This information is then captured in the stevedore's management systems, which assists with the location where each container from the vessel is to be placed after unloading. Transport from the unloading berth to the interim storage facility is controlled by documentary checks detailing the container details and contents. MPS utilises a terminal operating system to manage container movement, vessel discharges and yard allocations to minimise delays. Containers are tracked using differential global positioning systems.

The clearance process at Tema Port comprises:

- Declaration of cargo data
- Customs Document Verification, System Validation, cargo Classification and Valuation, Risk Assessment and quality assurance, payment of duty, cargo verification
- Release by the Shipping Agent
- Delivery by the port and other receipt delivery service providers
- Customs physical examination or scanning of cargo before cargo is allowed to exit the port.

Vessels are required to declare dangerous cargo before arriving/leaving at the port and all dangerous goods need to be properly manifested.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases.

The Port of Tema has restricted access and security processes, including optimal character recognition, biometric identify cards and CCTV. The port has perimeter fencing and terminal entry and exit gates are monitored on 24 hour basis. The harbour master has oversight of nautical operations within the port, including pilotage, towage, mooring and unmooring, and vessel traffic services. Software programs control container movement through the Ports.

The Port of Tema has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. Containers departing the port are checked against documentation for matching container numbers and product detail.

All sodium cyanide transited through the Port of Tema remains contained within its sealed containers at all times. Seals are individually numbered and tamper evident.

Ingress of solid sodium cyanide through the Port of Tema is limited to a specific customer. Solid sodium cyanide is only held at the Port of Tema for a short period to enable completion of specific Ghanaian governmental customs and quarantine clearances.

Whilst at the Port, temporary signage is provided to warn of the presence of solid sodium cyanide and the safety requirements whilst the product is located here, including the a ban on the consumption of food and beverages and open sources of ignition, including smoking, in the specific area and the specific personal protective equipment required in this specific area.

The Port has a specialist team in place to ensure that no other containers are located near containers containing sodium cyanide.

Importers are penalised substantial charges should any delay in remove of the product occurs.

The Port provides a dedicated area for workers to eat and drink which is well away from the area in which the product is located.

The Port of Tema is accredited under the ISPS Code. This is maintained by the GPHA which reports to the appropriate central Ghana government minister. The port has an on-site security presence which is present at all times and includes a mobile security team. Port security personnel stationed at the access to the port check the authority of drivers accessing the port area.

Collection from the port of containers is via a representative system. Prior to collection, end user representatives (e.g. a freight forwarder must arrange for timings for collection to occur). Collection is initiated with applicable representative in attendance as a security measure to ensure that only allocated containers are collected.

Cyanide remains sealed within its sealed shipping containers at all times. The area into which the containers are placed awaiting clearance is well ventilated to prevent the build-up of hydrogen cyanide gas. Whilst at the port, cyanide remains within its sealed containers at all times. The area in which the containers are placed awaiting clearance is suitable to contain any spillage that may occur.

The Port has an internal emergency response capability that is supported by external sources. Training is provided to personnel in dangerous goods awareness and procedures.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.

The Port of Tema has emergency response procedures by following the IMDG Code requirements. The Port has an internal emergency response and first aid capabilities that is supported by external sources. Training is provided to personnel in dangerous goods awareness and procedures.

The Port of Tema is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the port of Tema is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Tema's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port of Tema to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Tema for future work; rather it is recommended that Hebei continue to review and monitor the Port's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Elizabeth Venter
Environmental Scientist

EV/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

REFERENCES

- Ghana Maritime Authority (2017). *Annual Report 2015*. Available at: <http://www.ghanamaritime.org/en/media-centre/downloads/reports.php>. Accessed 11 January 2017.
- Ghana Maritime Authority (2017). *Functions*. Available at: <http://www.ghanamaritime.org/en/about-us/functions.php>. Accessed 11 January 2017.
- Ghana Maritime Authority (2017). *Maritime Security*. Available at: <http://www.ghanamaritime.org/en/about-us/programmes/maritime-security.php>. Accessed 11 January 2017.
- Ghana Ports and Harbours Authority (2017). *Ghana Ports Handbook 2016/2017*. Available at: <http://www.ghanaports.gov.gh/page/9/Welcome>. Accessed 11 January 2017.
- Ghana Ports and Harbours Authority (2017). *Tema Port Services*. Available at: <http://ghanaports.gov.gh/page/14/Services>. Accessed 11 January 2017.
- Golder (2015). *Orica Australia Pty Ltd, West Africa Supply Chain Amendment Audit Report, June 2015*. Golder Associates Pty Ltd. (Report Ref: 1418752-001-R-Rev0).
- Golder (2016). *Allship Logistics Limited, China Supply Chain Certification Audit Report, September 2016*. Golder Associates Pty Ltd. (Report Ref: 1650011-004-R-Rev0).
- Ignazio Messina & C. (2017). *Tema (Ghana), March 2010*. Available at: <http://www.messinaline.it/wps/wcm/connect/5231d38041b25fc4a1c3a7a0e6ce73d8/tema.pdf?MOD=AJPERES&CACHEID=5231d38041b25fc4a1c3a7a0e6ce73d8>. Accessed 11 January 2017.
- International Maritime Organisation [IMO] (2016). *Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide*. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation (2017). *Member States*. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx>. Accessed 11 January 2017.
- International Tanker Owners Pollution Federation [ITOPF] (2010). *Ghana Country Profile*. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/ghana/> Accessed on 25 January 2017

2 February 2017

Reference No. 1668932-010-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF CONAKRY

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Conakry, Guinea during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment.

Golder's assessment of the Port of Conakry found no issues of concern in regards to the Port's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port of Conakry, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. As there was limited information available, it is recommended that Hebei minimise the time product spends at the Port.

This assessment should not be a final acceptance of the Port of Conakry for future work; rather it is recommended that Hebei continue to review and monitor the Port of Conakry's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Conakry, Guinea, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Conakry, Guinea during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Conakry, Guinea

The Port of Conakry is located on the South Coast of Guinea and is the main port of Guinea. The Port has 20 hectare container yard and a full container storage capacity of 8000 twenty-foot equivalent units (TEUs). The theoretical annual capacity of the Port of Conakry is 600 000 TEUs. The container terminal is jointly operated by Bolloré Ports and the Port Authority of Conakry. The Port operates a continuous loading and unloading service, and is linked to road and rail systems.

The Port of Conakry Harbour Master oversees all port operations, including:

- 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.

During periods of transit at the Port of Conakry, containers of solid sodium cyanide are segregated from other containers and that the area is signed alerting the presence of the product. The Port has an on-site security presence and CCTV.

Guinea is a member of the International Maritime Organization (IMO) Council and the Abuja Memorandum of Understanding, and as such performs its Port State obligations, supervises foreign ships that berth at Conakry, and promotes compliance with international conventions among Flag States through Port State Control.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services provide the correct manifest documentation to the destination port which provides them with a list of the cargo types and in the case of sodium cyanide and any other hazardous cargo the number and reference of the containers.

The Port of Conakry is located in relative close proximity to end use destinations in Guinea and the West Africa region. The Port is connected to a transportation systems consisting of railways and highways.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Conakry. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters and dangerous goods. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code and International Maritime Dangerous Goods (IMDG) Code, which are mandatory instruments for all countries Party to the Convention. The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

As a member of the IMO and to also comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the Port Authority before arriving at or departing the Port of Conakry.

Previous due diligence assessments identified that operations personnel on the shipping line vessels on arrival at the loading port provide the Harbour Master with copies of the Dangerous Goods manifest (including stowage plan) and Packing Certificates for each of the hazardous cargo units loaded at that port.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the Port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels arriving at the Port of Conakry are required to declare dangerous cargo to the Port Authority of Conakry before arriving at or departing the Port.

Furthermore, the ISPS Code aims to ensure that the applicable port facilities and ocean going ships of IMO Member States are implementing the highest possible standards of security.

To comply with requirements of the IMDG Code, the Port of Conakry has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Dispatch Centre organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo to the Port Authority before arriving/leaving at the Port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

All solid sodium cyanide that transits the Port of Conakry is collected by the relevant carriers as soon as possible after arrival. Express clearances are initiated where possible to minimise the transit period. During periods of transit, containers of solid sodium cyanide are segregated from other containers and that the area is signed alerting the presence of the product and prohibiting smoking, drinking and eating outside set areas in the Port. All personnel, outside those operating top lift forklifts, are warned to keep away from the containers.

All signage is provided in French, the national language of the country.

Guinea requires a pre-shipment inspection for all imports into the country. This is implemented at the point of loading of the container and the inspection agency seals the container with their own specific seal in addition to the manufacturers own seal provisions.

The Port of Conakry is a secure area with an on-site security presence. Security watch is compulsory for all ships carrying sodium cyanide. The Port's security are armed and trained to deal with intruders. The Port's security presence is a facet of the Port's ISPS Code protocols.

All cyanide remains within its sealed containers at all times. The area of transit storage is well segregated and in an open area to prevent the build-up of hydrogen cyanide gas.

Only solid sodium cyanide is transited via the Port of Conakry. A previous due diligence assessment indicated that the area in which the containers are located whilst transiting the Port is suitable to effectively contain any spillage of solid sodium cyanide that may occur.

Emergency response is effected by external response agencies which are located close by to the Port. The Port itself has a limited emergency response capability than can assist the external agencies. In an emergency situation, the Port's security presence initiates a lock down of the Port to prevent access to the Port except for authorised emergency services responding to the emergency situation.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Guinea member of the IMO Council and complies with the accordance with the IMO DG Code. Although not specifically addressed in the due diligence the Port of Conakry has a basic emergency response by following the IMO DG Code requirements.

The Port of Conakry is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Conakry is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Golder's assessment of the Port of Conakry found no issues of concern in regards to the Port's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port of Conakry, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

As there was limited information available, it is recommended that Hebei minimise the time product spends at the port.

The assessment is not a final acceptance of the Port of Conakry for future work; rather it is recommended that Hebei continue to review and monitor the Port of Conakry's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Elizabeth Venter
Environmental Scientist

EV/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-010-l-rev0 dd port conakry, guinea.docx

REFERENCES

Golder (2015). *Orica Australia Pty Ltd, West Africa Supply Chain Amendment Audit Report, June 2015*. Golder Associates Pty Ltd. (Report Ref: 1418752-001-R-Rev0).

International Maritime Organisation [IMO] (2016). *Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide*. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation (2017). *Member States*. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx>. Accessed 12 January 2017.

International Tanker Owners Pollution Federation [ITOPF] (2002). *Guinea Country Profile*. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/guinea/> Accessed on 25 January 2017

Orica (2013). *Due Diligence Review - Port of Conakry, Guinea, September 2013*. Orica Mining Chemicals.

Port Authority of Conakry (2017). *General Plan*. Available at: <http://portconakry.org/plan-du-port/>. Accessed 12 January 2017.

Bolloré Ports (2017). *Port of Conakry*. Available at: <http://www.bollore-ports.com/en/worldwide-network/africa/port-of-conakry-guinea.html>. Accessed 12 January 2016.

Logistics Capacity Assessment (2017). *2.1 Guinea Port of Autonome de Conakry*. Available at: <http://dlca.logcluster.org/display/public/DLCA/2.1+Guinea+Port+of+Autonome+de+Conakry;jsessionid=A0CD8F91E49DE3836A3C48908A60A7A9#id-2.1GuineaPortofAutonomedeConakry-PortSecurity>. Accessed 12 January 2016.

2 February 2017

Reference No. 1668932-011-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF DAR ES SALAAM

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Dar es Salaam, Tanzania during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Dar es Salaam found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Dar es Salaam for future work; rather it is recommended that Hebei continue to review and monitor the Port of Dar es Salaam's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Dar es Salaam, Tanzania, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Dar es Salaam, Tanzania during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Dar es Salaam, Tanzania

The Port of Dar es Salaam is located on the East Coast of Africa and is the principle port of Tanzania. Dar es Salaam handles approximately 95% of the Tanzania international and serves landlocked countries such as Malawi, Zambia, Democratic Republic of Congo, Burundi, Rwanda and Uganda. The port is strategically placed to serve as a freight linkage to and from East and Central Africa countries.

The Port of Dar es Salaam has a rated capacity of 4.1 million (dwt) dry cargo and 6.0 million (dwt) bulk liquid cargo. The Port has a total quay length of 2000 metres with eleven deep-water berths.

The Tanzania Ports Authority (TPA) operates the Port of Dar es Salaam, however all containerised cargo is handled by the Tanzania International Container Terminal Services Ltd (TICTS), which is located in the Port of Dar es Salaam and is the largest container terminal in Tanzania. TICTS are owned by Hutchison Port Holdings. The terminal has four berths totalling 725 meters in length with a capacity to handle in excess of 500 000 twenty-foot equivalent units (TEUs) per year which includes many classes of Dangerous Goods cargo.

Port operations:

A Harbour Master oversees the operation of the overall Port operations. This includes:

- Management of the Port protocols for docking for vessels, e.g. use of Pilots; use of tug boats; different weather conditions, tides, currents; safety; and general Port operations. This sees to the safe docking and turnaround of the vessels in and out of the Port.
- Entry into Port is controlled by the Port's Pilot who understands the Port protocols and any unique issues regarding the approach and docking of a vessel at the Port. The Ship's Captain works in conjunction with the Pilot as he understands his vessel and can implement and assist with the Pilot's instructions.

- The approach of the vessel to the Port will take into any account any channels, special navigation points and as mentioned above the currents, tides and weather.
- Once the vessel is secure alongside the wharf the shipping activities changeover to Port activities. The vessels manifest of what containers are required to be unloaded from the vessel, including the manifest for containers for loading are handed over. This manifest will identify hazardous cargos and their UN number and classification, segregation requirements.

Stevedoring operations include:

The stevedoring company TICTS operate under a long term lease agreement with the port authorities and manage the on-shore (wharf) operations at the dedicated container terminal. This is the terminal currently used by the Mediterranean Shipping Company to facilitate the unloading of their vessels. The stevedoring operations include:

- Handling of the containers whether full or empty on and off the vessels; container storage areas for general cargo, port security, control systems for companies and their vehicles collecting and or delivering containers.
- Software programs that control container placement and movement; these software packages identify each individual container placement area in designated stacks. The input information for the placement of containers comes from the vessel's manifest.

Containers of dangerous goods discharged by vessels at the container terminal are moved by TICTS to a dedicated dangerous goods storage area within the port confines for storage until customs clearance has been completed and transport is arranged. Containers of Cyanide are segregated from other classes of dangerous goods. This area has minimal traffic flow and is large enough to allow space for appropriate segregation of different classes of dangerous goods.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination. These shipping companies also provide the correct manifest documentation to the destination port which provides them with a list of the cargo types and in the case of sodium cyanide and any other hazardous cargo the number and reference of the containers.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Dar es Salaam port is the principal Port of Tanzania and serves landlocked countries such as Malawi, Zambia, Democratic Republic of Congo, Burundi, Rwanda and Uganda. The Port is strategically placed to serve as a freight linkage to and from East and Central Africa countries.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Dar es Salaam. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo before arriving/leaving at the Port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

As required by the Tanzania Port Authority, the status of all containers must be declared in the carrier's manifest, an extra copy of which will be submitted to the Port Manager's office for onward transmission to the Container Terminal before the ship starts working. If the status of a container is not declared in the manifest, such a container will attract storage charges as per the appropriate tariff as soon as the container is landed and until a declaration is received or it is cleared from the Port.

Declaration and Disposal Orders (D&DOs) for containers must also show their status, which must align with the details in the manifest. In the case of difference in status between the Declaration and Disposal Order and the manifest, the Declaration and Disposal Order will be rejected until there has been an amendment to the manifest. Customs also require that all cargo manifests be submitted to them 48 hours prior to the ships arrival at outer anchorage.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

The Port of Dar es Salaam also has an Emergency Response Procedure for the hazardous cargos that pass through the Port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the Tanzania Port Authority before arriving/leaving at the Port.

To comply with requirements of the IMDG Code, the Port of Dar es Salaam has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Dispatch Center organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo before arriving/leaving at the port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

Cyanide on arrival at Dar es Salaam is placed in a segregated area awaiting relevant governmental clearances. This area, when cyanide is present, is clearly signed providing appropriate warning to all port personnel. Collection of the cargo by the approved carrier is direct from this area. Vehicles collecting cargo from the port environs are subject to port checks to ensure that approvals for collection are in place and that documentation and container details match prior to egress from the port. Additionally, signage is provided prohibiting smoking, consumption of foodstuffs and liquids in the specific area and the prohibition of open sources of ignition.

The Port of Dar es Salaam is accredited under the ISPS (International Ship and Port Security) Code and is classed as a secure area. The port has a full time security presence which includes armed patrols. Access to and from the container terminal is well controlled and areas used for cyanide storage are subject to an additional security presence. The Port security egress checkpoints check a driver's documentation to ensure approval has been granted for the removal of the container, that the container number physically matches with the documentation and that the seal is intact on the shipping container.

The Port has a minimum standard of personnel protective equipment requirement which includes the wearing of relevant safety footwear, clearly visible clothing and protective headwear in specific areas. This personal protective equipment requirement is suitable for cyanide that remains contained within sealed containers at all times.

All solid sodium cyanide remains at all times within its sealed containers. Containers are in a segregated area which is open to the air to prevent the build-up of hydrogen cyanide gas. The area in which the containers are located is suitable to effectively contain any spillage that may occur.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

The United Republic of Tanzania has been a member State of the IMO Council since 1974, it complies with the requirements of the IMO DG Code.

A previously conducted due diligence assessment (2013) showed that the Port of Dar es Salaam has both fire and ambulance stations on site and that the port was well run and efficient in its emergency operations. Safety and security measures were evident throughout the Port.

Both TICTS and the Tanzania Port Authority state their total commitment to ensuring that all DG containers are handled to ensure that no incidents of any nature occur. In preparation for such incidents, mock dangerous goods exercises are held once every year to test the emergency response procedures, although these are not cyanide specific. A cyanide awareness training course has been conducted by a certified freight company in the past and it is planned to make this an annual occurrence.

The Port of Dar es Salaam is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Dar es Salaam is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Dar es Salaam's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port of Dar es Salaam to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Dar es Salaam for future work; rather it is recommended that Hebei continue to review and monitor the Port's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist



Ed Clerk
ICMC Lead Auditor and Technical Specialist

CC/EWC/hsl

REFERENCES

CSBP (2013). *Due Diligence Review Dar es Salaam Port, Tanzania, June 2013.*

Golder Associates (2015). *International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090*

International Maritime Organisation [IMO] (2016). *Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide.* Available at:
<http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation (2017). *Member States.* Available at:
<http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx>. Accessed 13 January 2017.

International Tanker Owners Pollution Federation [ITOPF] (2008). *Tanzania Country Profile.* Available at:
<http://www.itopf.com/knowledge-resources/countries-regions/countries/tanzania/> Accessed on 25 January 2017

Orica (2013). *Due Diligence Review Dar es Salaam Port, Tanzania, August 2013.*

Tanzania Port Authority (2017). *Dar es Salaam Port.* Available at:
http://www.tanzaniaports.com/index.php?option=com_content&view=article&id=100&Itemid=270. Accessed 12 January 2017.

Tanzania Ports Authority (2012). *Tariff Book of Port Dues and Charges. Marine, Shipping and Stevedoring Charges, Wharfage, Shore Handling and Miscellaneous Services for Deep Sea Going Vessels and Coasters.* Available at <http://www.tic.co.tz/media/TPA%20A5%20Tariff%20Book.pdf> accessed 18 January 2017

Tanzania International Container Terminal Services (2017). *TICTS – Company Profile.* Available at:
<http://ticts.net/about-ticts/>. Accessed 13 January 2017.

2 February 2017

Reference No. 1668932-012-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF BUENOS AIRES

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Buenos Aires, Argentina during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Buenos Aires found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Buenos Aires for future work; rather it is recommended that Hebei continue to review and monitor the Port of Buenos Aires's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Buenos Aires, Argentina, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Buenos Aires, Argentina during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Buenos Aires, Argentina

The Port of Buenos Aires is located in Puerto Nuevo, Buenos Aires in Argentina. It is operated by the General Ports Administration, a state enterprise, and it is the leading transshipment point for the foreign trade of Argentina. It currently holds the concession of port operations until October 2019.

Terminales Río de la Plata (TRP) operates Terminals 1 and 2 in Puerto Nuevo in Buenos Aires. The terminals have been remodelled to provide modern facilities and the latest in container-handling equipment and services. The two facilities make up the largest container terminal in the Port, with capacity for handling one million 20 foot equivalents (TEUs) of containerised cargo per year.

TRP's facility comprises three basins, providing up to five berths for vessel operations. TRP has significant reefer (refrigerated cargo) capacity, 1650 plugs, which accommodate the large volume of reefer exports from Argentina. The terminal handles deep-sea vessels from Europe, Asia and North America, as well as feeders to both the East and West Coast of South America and barges upriver to Rosario.

TRP has an integrated management system which is certified against international standards for quality (ISO 9001:2008), environment (ISO 14001:2004) and security for the supply chain (ISO 28000:2007).

Port operations:

A Harbour Master oversees the overall operation of the Port of Buenos Aires. A previously conducted due diligence (2015) indicates that:

- Management of the Port protocols exists for docking of vessels (e.g. use of Pilots, use of tug boats, management of different weather conditions, tides, currents and safety and general Port operations). This sees to the safe docking and turnaround of the vessels in and out of the Port.

- Entry into Port is controlled by the Port's Pilot who understands the Port protocols and any unique issues regarding the approach and docking of a vessel at the Port. The Ship's Captain works in conjunction with the Pilot as he understands his vessel and can implement and assist with the Pilot's instructions.
- The approach of the vessel to the Ports will take into any account any channels, special navigation points and as mentioned above the currents, tides and weather.
- Once a vessel is secure alongside the wharf the shipping activities changeover to Port activities. The vessels manifest of what containers are required to be unloaded from the vessel, including the manifest for containers for loading are handed over. This manifest will identify hazardous cargos and their UN number and classification and segregation requirements.

Stevedoring operations include:

The stevedoring company, TRP, manage the onshore (wharf) operations at the dedicated container terminal. This is the terminal currently used by other ICMI accredited transporters to facilitate the unloading of their vessels.

The stevedoring operations include:

- Handling of the containers whether full or empty on and off the vessels; container storage areas for general cargo, port security, control systems for companies and their vehicles collecting and or delivering containers.
- Software programs that control container placement and movement; these software packages identify each individual container placement area in designated stacks. The input information for the placement of containers comes from the vessel's manifest.

Containers of dangerous goods discharged by vessels at the container terminal are currently being moved by TRP to various areas within the Port for storage until customs clearance has been completed and transport is arranged. Containers of cyanide are segregated from other classes of dangerous goods. TRP are currently investigating the possibility of having a dedicated area for storage of all dangerous goods. This area will have minimal traffic flow and be large enough to allow space for appropriate segregation of different classes of dangerous goods.

2.0 ICMI TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the Ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Ports activities are to remove the shipping containers from the vessel and place the shipping containers on the wharf or onto in-port transport for transfer to a designated storage area. Following final customs clearance, the containers will then be placed on road transport vehicles for the inland transport to the gold mine (final destination). These road transport vehicles will be from an ICMI certified transport company.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Buenos Aires. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Prefectura Naval Argentina (PNA) develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo before arriving/leaving at the port.

PNA National Regulations 5/98 Documents to be carried on board ships carrying dangerous goods, 3/96 Standards for the approval of packaging and packaging containing dangerous goods ensure all vessels are in compliance with requirements of IMDG Code.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

The PNA National Regulations 5/98 Documents to be carried on board ships carrying dangerous goods, 3/96 Standards for the approval of packaging and packaging containing dangerous goods and 2/91 Transport by vessels of dangerous goods, certificates of suitability and transport authorisation for ships carrying dangerous chemicals or liquefied gases in bulk; all apply.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Yes, Argentinian National Regulations and IMO rules for cargo stowage and handling state that all cargo listed on the dangerous cargo manifest must be stowed and handled as prescribed. It also requires IMDG code classes and UN numbers for all dangerous/hazardous cargo.

To comply with requirements of the IMDG Code, the Port of Buenos Aires has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times.

The Port of Buenos Aires operates under a suite of International and National regulations that ensures its compliance with regards to the transportation, handling and storage of dangerous goods.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Dispatch Centre organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo before arriving/leaving at the Port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

In general, Port and vessel security are managed through the International Ship and Port Facility Security Code (ISPS Code). The ISPS Code is a comprehensive set of measures to enhance security of ships and port facilities. All vessels calling at Russian Ports must meet ISPS requirements.

The purpose of the ISPS Code is to provide a standardised, consistent framework for evaluating risk, enabling Governments to offset changes in threat with changes in vulnerability for ships and port facilities through determination of appropriate security levels and corresponding security measures. The ISPS Code takes the approach that ensuring the security of ships and port facilities is a risk management activity and that, to determine what security measures are appropriate, an assessment of the risks must be made in each particular case.

The Port of Buenos Aires operates under a suite of International and National regulations that ensures its compliance with regards to the handling and storage of dangerous goods. PNA Regulations 9/97 Transport by vessels of dangerous goods, safety standards for transport by charcoal vessels and 3/96 Standards for the approval of packaging and packaging containing dangerous goods outline the requirements for all Ports.

A previous due diligence review (2012) ascertained that the shipping containers containing cyanide product are stored in a designated dangerous goods storage area (segregated according to the international segregation guidelines) and are placed on a concrete surface which has a safe floor loading factor in an open air area. The product remains in the containers that were packed at the sodium cyanide factory (the sodium cyanide packaging has a sealed plastic liner which stops the contact of product from moisture or humidity) ready for loading for onward transport to the relevant mine site. The containers are not opened and are kept sealed until they arrive at the mine site.

The due diligence review assessed security measures at the Port and ascertained that the container storage area at the Port has full CCTV coverage and that security measures were evident throughout the Port. The terminal adopts a range of strict internal controls and uses state-of-the-art technology to optimise operation and the safety. It is noteworthy that in 2009 the ISO 28000 certification (Supply Chain Security Management) was obtained.

The due diligence review assessed the capacity of the Port of Buenos Aires to contain any spilled cyanide materials and minimise the extent of a release and ascertained that the Port possessed an Emergency Procedure Guide especially developed for cyanide and a copy of the Material Safety Data Sheet. The Port undertakes regular emergency response exercises, though it was noted that these were not cyanide specific.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Argentina has been a member State of the IMO Council since 1974, it complies with the requirements of the IMO DG Code.

The PNA is the competent authority (specifically the Directorate for Environmental Protection) and administers the National Contingency Plan (NCP) for dealing with pollution by oil and other noxious substances in marine and freshwater environments. The PNA consists of two branches; one section deals with policy and implementing the international Conventions; the other has an operational role and is responsible for planning and responding to pollution incidents. This department has 19 Rescue, Firefighting and Environmental Protection stations located in the principal ports.

The Port of Buenos Aires is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the port of Buenos Aires had been certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances (HNS), 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals. However they have acknowledged this and contingency arrangements are incorporated into the current NCP. The PNA, with the support of private contractors, manages the response to and monitoring of a HNS incident and some equipment is already available (such as PPE, respirators, pumps, power packs and air monitoring equipment). The PNA is currently engaged in a programme of training and exercises in preparation for spills of both oil and HNS.

PNA Regulation 05-11 Obligatory Training Standards for Land Personnel Linked to Maritime, Fluvial and Hazardous Goods Shipping ensures minimum standards of preparedness and response are adhered to.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Buenos Aires's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Buenos Aires for future work; rather it is recommended that Hebei continue to review and monitor the Port's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist



Ed Clerk
ICMC Lead Auditor and Technical Specialist

CC/EWC/hsl

REFERENCES

Argentina, Buenos Aires Port, Terminales Rio de la Plata (TRP). Available at: <http://web.dpworld.com/our-business/marine-terminals/australia-americas/argentina-buenos-aires/> Accessed on 19 January 2017

CSBP (2012). Due Diligence Review of Port of Buenos Aires, Argentina.

DP World, Terminales Rio De la Plata Infrastructure (2010). Available at: <http://www.trp.com.ar/la-empresa/infraestructura> Accessed on 19 January 2017

Golder Associates (2015). International Cyanide Management Code. Australian Gold Reagents Argentina Supply Chain Certification Audit, Detailed Audit Report – Amendment. Report number- 1521736-008-R-Rev0

Golder Associates (2015). International Cyanide Management Code. Cyanide Supply Chain Audit, Orica Australia Pty Ltd, Latin America Supply Chain Amendment, Detailed Audit Report. Report number- 1418269-001-R-Rev1

Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090

International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017

International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/argentina/> Accessed on 20 January 2017

International Tanker Owners Pollution Federation [ITOPF] (2009). Argentina Country Profile. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/argentina/> Accessed 20 January 2017

Ministerio de Seguridad, Prefectura Naval Argentina, Autoridad Maritima (2017). Ordinances (Regulations) - Regime for the Protection of the Environment. Available at: http://www.prefecturanaval.gov.ar/web/es/html/dpla_ordenanzaslistadoxtomo.php?filtro=6&titulo=TOMO%206:%20R%C3%89GIMEN%20PARA%20LA%20PROTECCI%C3%93N%20DEL%20MEDIO%20AMBIENTE Accessed on 25 January 2017s

2 February 2017

Reference No. 1668932-013-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF CALLAO

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Callao, Peru during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Callao found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Callao for future work; rather it is recommended that Hebei continue to review and monitor the Port of Callao's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Callao, Peru, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Callao, Peru during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Callao, Peru

The Port of Callao Peru's main commercial seaport and located 12 kilometres from Lima, the country's capital. The Port is governed by Peru's National Port Authority and is maintained and administered by the Empresa Nacional De Puertos S.A. (ENAPU) (a state company). The port is currently a point of entry for solid sodium cyanide chemicals into the Peruvian market place.

The Port of Callao is protected by two artificial breakwaters. The northern breakwater is approximately 1300 m in length and the southern breakwater is approximately 400 m in length. The opening between the two breakwaters is about 180 m 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 access channel is well marked by sea buoys and lights on each breakwater.

Major international shipping companies such as Hamburg SUD, Maersk and MSC transport their shipments to the Port of Callao in Peru.

The "Terminal Portuario Callao" TPC is owned and operated by ENAPU S.A. and operated by two dealers: APM Terminals and DP World. The terminal boasts world class standards for efficiency and productivity (currently averaging more than 30 gross moves per hour per crane), and is ranked as the top container terminal facility in South America by several of its shipping line customers. As a result, DP World Callao has positioned itself as the undisputed Gateway for Peru's import and export container traffic and regional transshipments.

There are 16 berths for grains, general, bagged and liquid cargoes, lubricating and vegetable oils, mineral concentrates, containerised cargo, discharge of crude oil, clean products, propane gas, chemicals and water and passengers. There are seven open storage zones for the use of imported goods.

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 programmes for container placement and movement including identification of hazardous cargoes.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Callao. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

As Peru is a member of the International Maritime Organisation (IMO), to comply with the requirements of the International Maritime Dangerous Goods Code (IMDG Code) 2014 and the International Maritime Solid Bulk Cargoes Code (IMSBC Code) 2013, vessels are required to declare dangerous cargo to the relevant port authority or management body before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the Port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Yes, as a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the Port of Callao before arriving/leaving.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Port Operators, DP World and APM, are both fully aware when sodium cyanide containers are to arrive at the Port.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo before arriving/leaving the Port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest- which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

All transshipping operations are carried out in a dedicated dangerous goods area by suitably trained personnel. The transshipping operations are monitored by the port's CCTV system and the containers are tracked using GPS to record the positioning of the containers within the dangerous goods storage areas.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

Both the DP World and APM Terminals have surveillance systems that monitor the security of goods via CCTV coverage. Both terminals operate in a pedestrian free environment and are brightly lit at night. Safety signage and on site security measures are evident. Containers are placarded in accordance with IMDG labelling requirements and storage areas show relevant signage regarding no smoking, no open flames, eating and drinking is not permitted and the PPE requirements.

During transshipping, manifests are handed over from the vessel to the terminal operators which include the weight and any hazards associated with the containers. This information is captured in the terminal operator's computer systems, which have the ability to identify dangerous goods consignments, determine the class of dangerous goods and establish the segregation requirements for that product as required by the IMO DG Code.

Containers are stored at the port with adequate ventilation to prevent build-up of hydrogen cyanide gas. The product remains sealed in containers at all times and the area of storage is suitable to effectively contain any spillage that may occur. Local specialised responders are on hand to provide assistance in the event of a serious incident.

The Callao Port operator procedure calls for confirmation that the United Nations ID numbers, Department of Transport and National Fire Protection Association (NFPA) diamond number placards are present on the three visible sides of cyanide containers before they can be transferred to trucks and dispatched. This is required by Peruvian law when transporting hazardous materials.

Transshipping depots and interim storage sites are associated with the Port of Callao. During unloading, containers of cyanide may be stored temporarily in designated transshipping depots within the confines of the Port. These depots are managed and administered by the terminal operators DP World and or APM respectively. It is the policy of the Port that all containers of sodium cyanide are to be removed from the Port within forty eight hours following discharge of the vessel.

Should the containers of cyanide not be cleared through customs within the forty eight hour period, the terminal operators may transfer the containers to an inland clearance depot operated by Licsa under the authority of the Peruvian National Customs and Tax Administration (SUNAT). The Clearance Depot is located a short distance outside of the Port confines. The containers remain under customs control until clearance has been arranged and collection from the Clearance Depot can be made by the importers.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Peru has been a member State of the IMO Council since 1968, it complies with the requirements of the IMO DG Code.

The Port of Callao is equipped with emergency response teams who are trained to respond to emergency situations. Medical facilities are available on site and include access to a doctor, paramedics and an ambulance. Firefighting trucks are present just outside of the port area and are able to mobilise to the port where required. APM (one of the terminal operators) holds two emergency response exercises per year and DP World Terminal hold three.

The Port of Callao is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Callao is certified under the Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

Previous due diligence assessments indicate that safety and security measures are present throughout the port, including upon entry and exiting of the port. The due diligence ascertained the port has suitable procedures and resources in place for handling emergency situations.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Callao's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Callao for future work; rather it is recommended that Hebei continue to review and monitor the Port of Callao performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

REFERENCES

CUSA SAC (2016). International Cyanide Management Code, Summary Certification Audit Report. Certification Audit of Cyanide Supply Chain including transportation from the Korean cyanide production facility to the Port of Pusan – Korea, ocean transport, unloading at the Port of Callao – Perú, transport to the CUSA SAC warehouse and transport to the mine sites.

DP World, Terminales Rio De la Plata Infrastructure (2010). Available at: <http://www.trp.com.ar/la-empresa/infraestructura> Accessed on 19 January 2017

Golder Associates (2015). International Cyanide Management Code. Australian Gold Reagents Peru Supply Chain Certification- Summary Audit Report. Report number- 1521736-005-R-Rev1

Golder Associates (2015). International Cyanide Management Code. Cyanide Supply Chain Audit, Orica Australia Pty Ltd, Latin America Supply Chain Amendment, Detailed Audit Report. Report number- 1418269-001-R-Rev1

Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090

International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017

International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017

International Tanker Owners Pollution Federation [ITOPF] (2005). Peru Country Profile. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/peru/> Accessed on 20 January 2017

Orica Mining (2014). Due Diligence Review – Port of Callao, Peru. Revised Report number 2

2 February 2017

Reference No. 1668932-014-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF JEDDAH

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Jeddah, Saudi Arabia during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Jeddah found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Jeddah for future work; rather it is recommended that Hebei continue to review and monitor the Port of Jeddah's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Jeddah, Saudi Arabia, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Jeddah, Saudi Arabia during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Jeddah, Saudi Arabia

The Jeddah Islamic Port is located in the middle of the international shipping route between east and west. The port lies on the Red Sea coast and is the Kingdom of Saudi Arabia's principal port serving the holy cities of Makkah and Madinah. The port serves the commercial centres through which 59% of the Kingdom's imports by sea are handled.

The Kingdom established the Seaport Authority in September 1976, at which point it started expanding the Jeddah Islamic Port and its facilities from originally 10 operational berths, into the 58 berths of international status in service today.

The port provides handling services for all types of cargo by means of a highly specialized cargo terminals, distributed as follows:

- container terminals
- bulk grain terminals
- bulk edible oil terminal
- ro-ro cargo terminals
- general cargo terminals
- livestock terminals
- chilled and frozen cargo terminals
- passenger terminal.

Jeddah Islamic Port is a congestion free harbour that occupies a 10.5 square kilometre footprint, it has 58 deep water quays and an overall quay length of 11.2 kilometres. Maximum draft reaches 16 meters, which can accommodate the latest generation of large container vessels (with a capacity of 6500 TEUs).

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Jeddah. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Kingdom of Saudi Arabia Port Authority develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

As of July 1 2016, any vessel bound for a Saudi port must produce on arrival their valid International Ship Security Certificate (ISSC), issued by the vessel's flag state in accordance with the ISPS code.

Additionally, under the Saudi Arabian Ports Authority Rules and Regulations Sub-section 16.4 – *Power of the Port Authority in Relation to Dangerous Goods*; the documents required from and the notices to be given by the owner, master or agent of the ship for the loading, discharging, transshipment and transiting of dangerous goods or marine pollutants must comply with this section.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, when a vessel arrives at the Port of Jeddah copies of the documentation that accompanies the cyanide throughout transportation, including Dangerous Goods manifest, packing certificates and Multimodal Dangerous Goods Forms, are provided to the port authorities and or stevedores.

According to the Saudi Arabian Ports Authority Rules and Regulations Sub-section 16.3 – *Availability of Information on Dangerous Goods and Marine Pollutants*; for consignments of dangerous goods or marine pollutants in a port on board a vessel, a road vehicle, a railway equipment or resting on port property the owner or master of the vessel, the owner or operator of the road vehicle, the railway organisation or the port facility operator and the port's pertinent safety forces shall ensure that the appropriate information shall be immediately available at all times for use in emergency response to accidents and incidents involving these dangerous goods or marine pollutants.

The information required shall be available away from packages containing the dangerous goods or marine pollutants and immediately accessible in the event of an incident.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Yes, Saudi Arabian Port Rules and Regulations for cargo stowage and handling state that all cargo listed on the dangerous cargo manifest, and according to IMO rules, must be stowed and handled as prescribed. It also requires IMDG code classes and UN numbers for all dangerous/hazardous cargo.

In addition, under the Saudi Arabian Ports Authority Rules and Regulations Sub-section 16.4 – *Power of the Port Authority in Relation to Dangerous Goods*; The master, owner or agent of a ship must not bring dangerous substances or marine pollutants into the port unless properly stowed, separated, labelled and marked on board the ship and all necessary measures are completed to secure the transport, storage and handling of them in compliance with the provisions of the pertinent conventions. This shall be registered in special documents for the carriage of these substances.

To comply with requirements of the IMDG Code, the Port of Jeddah has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Port Operators are fully aware when sodium cyanide containers are to arrive at the port. As per recent changes to the Port of Jeddah's operational procedures (13 November 2015), Port Management states that discharge of any hazardous chemicals from vessels in the port will not be allowed unless prior approval is granted by Customs. The required regulatory forms must be obtained from the consignee and submitted to the Port Authorities along with hazardous cargo manifests before the arrival of the ship.

Any chemical cargo on board a vessel that has not complied with this pre-clearance procedure will be denied discharge and the cargo will be returned on the same ship.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo before arriving/leaving at the port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

The Saudi Arabia Port Authority states that every ship applying for a permission to enter a port and every port facility operator within a port must ensure compliance with the security requirements for ships and port facilities of the International Convention for the Safety of Life at Sea (SOLAS), 1974, issued by the IMO.

Every Port Authority controlling a port under these regulations is encouraged to pursue the objectives of the IMO and ILO Code of Practice on Security in Ports, 2004, offering guidance to Governments, employers, workers and other stakeholders to reduce the risk to ports from the threat posed by unlawful acts.

With regards to Port security, the Authority states no person shall access any port area as defined by its boundaries, via water, air or land unless the person obtained a permit from the Port Authority for accessing a port. A Port Authority may have signs, fences or barriers arranged to ensure the security and safety of persons, ships and property, the environmental protection or the management of the port infrastructure and the services of the port. Every person in a port shall obey the instructions on signs posted and respect the functions of fences and barriers established by the port authority. No person shall remove, mark or deface any sign, fence, barrier or device arranged by a Port Authority in a port.

The Port of Jeddah has dedicated storage areas for specialised products including dangerous goods. The port operations for dangerous goods are registered and licensed by the government. Containers departing the port are checked against documentation for matching container numbers and product detail.

All sodium cyanide transited through the Port of Jeddah remains sealed within containers at all times.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Saudi Arabia has been a member State of the IMO Council since 1969, it complies with the requirements of the IMO DG Code.

The Presidency of Meteorology and Environment (PME) of the Saudi Arabian Ministry of Defence and Aviation is responsible for all environmental matters in the Kingdom, including planning for the conservation of natural marine and coastal resources. The PME also ensures that reporting, surveillance and response capabilities are available to deal with spills in Saudi Arabian waters. These are outlined in a *National Contingency Plan for Combating Marine Pollution by Oil and Other Harmful Substances in Emergencies*. This Plan establishes two Area Operations Committees and two Environmental Protection Coordinating Committees, one of each for the Red Sea coast and for the Gulf Coast. These committees are chaired by PME with representation from interested authorities including. Amongst their responsibilities is the preparation of area plans, including local plans for marine and coastal oil facilities, identification of necessary manpower and equipment, and training staff in response activities.

PME holds stocks of equipment at the Port of Jeddah for responding to spills from shipping accidents. The Saudi Port Authority holds sizeable amounts of equipment in all Saudi Ports on the Red Sea and Arabian Gulf.

The Port of Jeddah is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Jeddah is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Jeddah's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Jeddah for future work; rather it is recommended that Hebei continue to review and monitor the Port of Jeddah's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

REFERENCES

- Abdullah bin Awa'd Al-Zamaie, Jeddah Islamic Port D.G. (2015). Kingdom of Saudi Arabia, Sea Ports Authority- Port Letter re: Obtaining of prior permission from customs before importing chemicals. Available at: <http://cms.molpower.com/LinkClick.aspx?fileticket=sl82oiCR25s%3d&portalid=0> Accessed on 20 January 2017
- Compass Forwarding Co. Inc. (2017). New hazardous materials regulations for shipments to Saudi Arabia Available at: <http://www.compassfwd.com/news/new-hazardous-materials-regulations-for-shipments-to-saudi-arabia/> Accessed on 19 January 2017
- Find a Port – the online port information specialists (2016). General Information for Saudi Arabia. Available at: <http://www.findaport.com/country/saudi-arabia> Accessed on 19 January 2017
- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- International Tanker Owners Pollution Federation [ITOPF] (2009). Saudi Arabia Country Profile. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/saudi-arabia/> Accessed on 20 January 2017
- Kingdom of Saudi Arabia (2014). Ports Authority- Rules and Regulations. Available at <https://www.ports.gov.sa/English/RulesRegulations/Pages/default.aspx> Accessed on 19 January 2017
- OOCL (2017). Operational Restrictions – Dangerous Goods Requirements. Available at: <http://www.oocl.com/middleeast/eng/localinformation/operationalrestrictions/saudi-arabia/Pages/default.aspx?site=middleeast&lang=eng> Accessed on 19 January 2017

3 February 2017

Reference No. 1668932-015-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF VOSTOCHNY

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Vostochny, Russia during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Vostochny found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Vostochny for future work; rather it is recommended that Hebei continue to review and monitor the Port of Vostochny's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Vostochny, Russia, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Vostochny, Russia during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Vostochny, Russia

The Port is situated in the South Primorsky region in the gulf of Nakhodka, Vrangal Bay. Vostochny is a natural deep-water and year-round ice-free port on Russia's Pacific Coast, on the Sea of Japan.

The Vostochnaya Stevedoring Company (JSC) is the largest container terminal by capacity in the Russian Far East, with an annual throughput capacity of 550 000 TEUs. Located at the eastern end of the Trans-Siberian Railway, VSC offers a full range of stevedoring, cargo forwarding and warehouse services, including the assembly and dispatch of container block trains with the use of its own stock of railway platforms. The facility also handles Ro/Ro vessels and offers storage and servicing of refrigerated containers.

The Terminal has four berths at 13.5 metres depth and a total quay length of 1284 metres, the Port area covers 72 hectares with 225 reefer plugs and 175 rail flatcar capacity in two rail storage areas. The Universal handling complex of Vostochny Port is equipped with machinery made by leading Japanese, European and Russian manufacturers. A specialised machinery fleet consisting of 13 gantry cranes, 3 loading bridges and travelling loaders and bulldozers is available for use.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Vostochny. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

As the Russian Federation is a member of the International Maritime Organisation (IMO), to comply with the requirements of the International Maritime Dangerous Goods Code (IMDG Code) 2014 and the International Maritime Solid Bulk Cargoes Code (IMSBC Code) 2013, vessels are required to declare dangerous cargo to the relevant port authority or management body before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

The Port of Vostochny operates under a suite of International and National regulations that ensures its compliance with regards to the transportation, handling and storage of dangerous goods. When dispatching packaged dangerous goods the shipper must provide the port or their representatives with the documents specified in the Regulations (see Sections 5.4.1 & 7.1.4.11 of the European Agreement Concerning the International Carriage of Dangerous Goods).

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Yes, Russian National Regulations and IMO rules for cargo stowage and handling state that all cargo listed on the dangerous cargo manifest must be stowed and handled as prescribed. It also requires IMDG code classes and UN numbers for all dangerous/hazardous cargo.

To comply with requirements of the IMDG Code, the Port of Vostochny has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times.

Cyanide is a Class 1 Hazardous Material under Russian regulations. As such, cyanide is required to be removed from the Port within 24 hours of vessel arrival.

The Port of Vostochny operates under a suite of International and National regulations that ensures its compliance with regards to the transportation, handling and storage of dangerous goods.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Russian Federal Agency for Marine and River Transport develops and implements policies and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the handling of dangerous goods and inspection of containers holding dangerous goods.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo to the Vostochny Stevedores before arriving/leaving at the Port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

In general, Port and vessel security are managed through the International Ship and Port Facility Security Code (ISPS Code). The ISPS Code is a comprehensive set of measures to enhance security of ships and port facilities. All vessels calling at Russian Ports must meet ISPS requirements.

The purpose of the ISPS Code is to provide a standardised, consistent framework for evaluating risk, enabling Governments to offset changes in threat with changes in vulnerability for ships and port facilities through determination of appropriate security levels and corresponding security measures. The ISPS Code takes the approach that ensuring the security of ships and port facilities is a risk management activity and that, to determine what security measures are appropriate, an assessment of the risks must be made in each particular case.

The ISPS Code is implemented through chapter XI-2 Special measures to enhance maritime security in the International Convention for the Safety of Life at Sea (SOLAS). Since the ISPS Code is part of SOLAS, compliance is mandatory for all Contracting Governments to SOLAS. Russia is both a member of the IMO and a signatory of SOLAS.

The Port of Vostochny operates under a suite of International and National regulations that ensures its compliance with regards to the handling and storage of dangerous goods. The Port of has dedicated storage areas for specialised products including dangerous goods and operations for dangerous goods are registered and licensed by the government. Containers departing the port are checked against documentation for matching container numbers and product detail.

All sodium cyanide transited through the Port of Vostochny remains sealed within containers at all times.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Russia has been a member State of the IMO Council since 1958, it complies with the requirements of the IMO DG Code.

According to requirements of Russian legislation, in 2008 the Vostochny Port approved and put into operation a plan on the Prevention and Liquidation of Emergency Oil and Oil Products Leaks in order to enable readiness, prompt reaction and organisation of works in the Vostochny Port region. In order to manage emergency leaks of oil, oil products, and other hazardous chemicals in the water areas of the seaports of Vostochny and Nakhodka, an off-duty emergency response and rescue team was also created in Vostochny.

In accordance with this plan, the emergency response and rescue team members of the Vostochny Port regularly take professional development courses that help them to maintain operational readiness and to develop their professional skills. The Port undertakes regular emergency response exercises, although these are not cyanide specific.

The Port of Vostochny is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Vostochny is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Vostochny's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port of Vostochny to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Vostochny for future work; rather it is recommended that Hebei continue to review and monitor the Port of Vostochny's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-015-l-rev0 dd port vostochny, russia.docx

REFERENCES

- APM Terminals (2017). Russian and Baltic Operations, Vostochny- About Us. Available at: <http://www.apmterminals.com/en/operations/russia-and-baltics/vostochny/about-us> Accessed on 24 January 2017
- Federal Agency of Marine and River Transport [RF Ministry of Transport] (n.d.). Laws and Regulations. Available at: http://www.morflot.ru/dokumenty/normativno_pravovoe_regulirovanie.html Accessed on 24 January 2017
- Federal State Unitary Enterprise [FSUE] (2016). Environmental Protection during Current Economic Activities, Subsection 5. Available at: http://www.rosmorport.com/vof_ecology.html?id=6903&srch=hazardous++ Accessed on 23 January 2017
- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- International Dangerous Goods and Container Association [IDGCA] (2001-2017). Laws and Regulatory Acts. Available at: <http://www.idgca.org/lawintere.html> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- Independent Survey Company (2002-2017). Russian Register of Dangerous Goods Legislation. Available at: http://www.rusregister.com/dangerous_goodse.html Accessed on 24 January 2017
- International Tanker Owners Pollution Federation [ITOPF] (2013). Russia Country Profile. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/russian-federation/> Accessed on 20 January 2017
- Port Management Company (2015). Vostochny Port- General Information. Available at: <http://www.vostport.ru/en/company/info/> Accessed on 24 January 2017
- United Nations (2010). Economic Commission for Europe [ECE] Committee on Inland Transport – European Agreement Concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) – Volume 1.

3 February 2017

Reference No. 1668932-016-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF MANZANILLO

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Manzanillo, Mexico during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Manzanillo found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Manzanillo for future work; rather it is recommended that Hebei continue to review and monitor the Port of Manzanillo's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Manzanillo, Mexico, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Manzanillo, Mexico during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Manzanillo, Mexico

The Port of Manzanillo is situated in the State of Colima, in the Republic of Mexico. Manzanillo is considered Mexico's busiest port and is responsible for handling Pacific cargo for the Mexico City area. The Port is approximately 437 hectares in size and includes 19 specialised water berths with a maximum depth of 16 metres. Manzanillo has 14 terminals and is well equipped with specialised handling facilities.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Manzanillo. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Mexican Government develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo before arriving/leaving the Port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

In addition Mexican Standard NOM-033-SCT4-1996 – *Guidelines for the entry of dangerous goods to port facilities* requires a list or manifest of dangerous goods (including UN identification number and classification according to the IMDG Code), the number and type of packages (gross weight and packaging group), the position of stowage of dangerous goods on board, and identification of those that will be offloaded in the port.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, Mexican Standard NOM-033-SCT4-1996 – *Guidelines for the entry of dangerous goods to port facilities* details the requirements that must be met in order to bring dangerous goods into/through the Port of Manzanillo by road or sea. It states that all vessels are required to have copies of emergency procedures and first aid guides with respect to the dangerous cargo being carried.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Yes, Mexican Standard NOM-033-SCT4-1996 – *Guidelines for the entry of dangerous goods to port facilities* details the requirements for stowage and separation of dangerous goods in accordance with the IMDG Code. Additionally NOM-010-SCT2-2009 – *Compatibility and Segregation Provisions for the Storage and Transportation of Hazardous Substances, Materials and Residues* provides detailed information for the appropriate segregation, labelling and handling standards required by the Port of Manzanillo.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

Port Operators are both fully aware (as per NOM-033-SCT4-1996) when sodium cyanide containers are to arrive at the port. The stevedores receive the vessel's manifest, which includes unloading and handling information for the Port and this information is then captured in the company's container terminal software program.

All transshipping operations are carried out in a dedicated dangerous goods area by suitably trained personnel. The transshipping operations are monitored by the port's CCTV system and the containers are tracked to record the positioning of the containers within the dangerous goods storage areas.

Following final clearance, the consignment is placed on road transport vehicles for the inland transportation leg to the relevant end destination. These road transport vehicles are owned by the ICMI accredited transport company providing the road transport service.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Mexican Standard NOM-012-SCT4-2007 *Guidelines for the Elaboration of the Contingency Plan for Boats Transporting Hazardous Goods* requires that vessels carrying dangerous goods must have a means of maintaining contact between the vessel and the appropriate bodies on land at all times.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

The Port of Manzanillo must adhere to the requirements of Official Mexican standard NOM-010-SCT2/2009, *Compatibility and segregation provisions for the Storage and transportation of hazardous substances, materials and waste* and NOM-023-SCT4-1995, *Conditions for the management and Storage of dangerous goods in ports, terminals and sea units*.

These standards state that ports, terminals and offshore units must establish areas for management, storage and adequate segregation of dangerous goods in bulk or packed form, from other cargo. There is a compatibility and segregation table for dangerous substances, materials and waste. These storage areas must have the appropriate infrastructure, facilities and signage on display in accordance with the inherent risks of the products.

Additionally the Port or terminal operator must ensure that the areas where goods are handled and stored be monitored at all times and that personnel involved in such operations have received adequate training. The operator shall keep a permanent record of any dangerous goods encountered in the port area and will ensure that in the areas where the products are handled and stored, personnel have accessible information on emergency procedures.

It will also ensure that in such areas signage is displayed to show smoking is prohibited, sources of ignition are avoided and proper precautions are taken with regards to personal protective equipment for the handling of dangerous goods.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Mexico has been a member State of the IMO Council since 1954, it complies with the requirements of the IMO DG Code. The Mexican Government also has official national standards in place for the transportation, handling and storage of hazardous substances which applies to all ports, terminals and offshore facilities where dangerous goods may be stored.

Official Mexican NOM-005-SCT2/1994, *Emergency Information for the Transportation of hazardous substances, materials and waste* and NOM-023-SCT4-1995, *Conditions for the management and Storage of dangerous goods in ports, terminals and sea units* both contain provisions for ensuring preparedness in the event of an emergency situation. Essentially these standards require that the port administration form and maintain (via training) an emergency response team, ensure emergency response equipment is available and well maintained and have in place appropriate emergency incident notification and reporting mechanisms.

Additionally the Port of Manzanillo is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances (HNS) pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Manzanillo is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Manzanillo's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Manzanillo for future work; rather it is recommended that Hebei continue to review and monitor the Port of Manzanillo's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-016-l-rev0 dd port manzanillo, mexico.docx

REFERENCES

- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at:
<http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Member States. Available at:
<http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at:
<http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- International Tanker Owners Pollution Federation [ITOPF] (2008). Mexico Country Profile. Available at:
<http://www.itopf.com/knowledge-resources/countries-regions/countries/mexico/> Accessed on 20 January 2017
- Secretario de Gobernación [SEGOB] (1998). Official Mexican NOM-023-SCT4-1995- Conditions for the management and Storage of dangerous goods in ports, terminals and sea units in. Available at:
<http://www.sct.gob.mx/fileadmin/CGPMM/nom/NOM-023.pdf> Accessed on 23 January 2017
- Secretario de Gobernación [SEGOB] (2016). Official Mexican NOM-033-SCT4-1996- Guidelines for the entry of dangerous goods to port facilities. Available at:
http://www.dof.gob.mx/nota_detalle.php?codigo=5296976&fecha=24/04/2013 Accessed on 23 January 2017
- Secretario de Gobernación [SEGOB] (2007). Official Mexican NOM-012-SCT4-2007- Guidelines for the Elaboration of the Contingency Plan for Boats Transporting Hazardous Goods.
Available at: <http://legismex.mty.itesm.mx/normas/sct4/sct4012-07.pdf> Accessed on 23 January 2017
- Secretario de Gobernación [SEGOB] (1994). Official Mexican NOM-005-SCT2-1994- Emergency Information for the Transportation of Substances, Materials and Hazardous Waste.
Available at: <http://www.ordenjuridico.gob.mx/Documentos/Federal/wo69836.pdf> Accessed on 23 January 2017
- Secretario de Gobernación [SEGOB] (2009). Official Mexican NOM-010-SCT2-2009- Compatibility and Segregation Provisions for the Storage and Transportation of Hazardous Substances, Materials And Residues. Available at: http://dof.gob.mx/nota_detalle.php?codigo=5107654&fecha=01/09/2009 Accessed on 23 January 2017

3 February 2017

Reference No. 1668932-017-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF DAKAR

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Dakar, Senegal during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions it was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Dakar found no new issues of concern in regards to the Port's management of solid sodium cyanide product. It does however acknowledge that a previous due diligence (2010) highlighted concerns around handling of cyanide shipments whilst at the DP World Terminal within the Port.

This assessment should not be a final acceptance of the Port of Dakar for future work; rather it is recommended that Hebei continue to review and monitor the Port of Dakar's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Dakar, Senegal, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Dakar, Senegal during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Dakar, Senegal

The Port of Dakar is situated in the State of Colima, in the Republic of Senegal. Dakar is a deep sea port and is located at the intersection of the main sea routes serving the West African coast. It has an exceptional geographical position (the most advanced point of the West African coast) at the intersection of the lines linking Europe to South America, and North America to South Africa.

It is an international port of transit and serves as the gateway for Mali thus offering the possibility of additionally serving Niger and Burkina Faso.

The Port is divided into two separate trading zones (North and South) separated by a military zone, ship repair shops and a fishing port. The container terminal in the North Zone of the Port of Dakar covers a total area of 24 ha. It has a linear quay of 700 metres in length with three berths ranging from 12 to 13 metres in depth. Modern equipment is used for handling, including four docks (including two post-panamax), four Gottwald cranes on 100-tonne tyres, ten gantry cranes, 15 reach stackers and 400 refrigerator outlets.

The operator of the container terminal is DP World and they oversee the annual traffic of about 300 000 TEUs (twenty-foot equivalent). The port also has separate terminals for bulk goods and hydrocarbons.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Dakar. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Senegal Port Authority develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the International Maritime Organisation (IMO) and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the Port Authority before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's provisions is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security. The Port of Dakar is accredited under the ISPS code.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units loaded onto the ship at the port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo to the Port Authority before arriving/leaving the port.

To comply with requirements of the IMDG Code, the Port of Dakar has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated and stacked separately. All sodium cyanide remains contained within its sealed containers at all times.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

The Dispatch Center organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring.

As a member of the IMO and to comply with the IMSBC Code, vessels are required to declare dangerous cargo to the Port Authority before arriving/leaving the port.

Chain of custody documentation is used by shipping companies to prevent the loss of cargo during shipment. This documentation includes the vessel manifest – which identifies the location and content of each container on the vessel along with packing certificates, Multimodal Dangerous Goods Forms and Material Safety Data Sheets (MSDS).

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

The Senegal Port Authority states that the Port of Dakar has made all financial and material arrangements to align its facilities and operations with the directives emanating from the International Convention for the Safety of Life at Sea (SOLAS) 1974, convention. Therefore, every ship applying for permission to enter, and every port facility operator working in the Port of Dakar must ensure compliance with the security and safety requirements for ships and port facilities as issued by the IMO.

With this in mind the Port of Dakar has set up:

- A centralised navigation aid at the harbor lookout, equipped with an Automated Identification System (AIS) and functional mark-up structures
- A surveillance system for the harbor and the water plan using radars, remote monitoring systems and nautical patrols
- Security measures for access and the port enclosure with the setting up of a multi-purpose operational centre equipped with high-tech surveillance equipment.

Additionally, 2016 saw the strengthening of security provisions at Dakar with the establishment of a corps of 450 officers trained in ISPS code standards and the reinforcing of the perimeter and access point security measures.

Naval assets for maritime and ground surveillance (patrol vehicles, video surveillance at the port facilities) have been put in place. The Port of Dakar aims to have ISO 28000 certification by 2023 and has recently contracted a private enterprise to begin putting in place the required equipment, materials and maintenance protocols to achieve certification.

A due diligence conducted in 2010 on the West African supply chain of an established cyanide transporter highlighted concerns relating to the management of cyanide and hazardous substances whilst in storage at the Port of Dakar and under the management of DP World.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Senegal has been a member State of the IMO Council since 1960, it complies with the requirements of the IMO DG Code.

The Port of Dakar is certified under the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

It should be noted that at the time of this due diligence there was no evidence to show that the Port of Dakar is certified under the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol) – an extension of the OPRC 90 to include hazardous chemicals.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find any new issues of concern in regards to the Port of Dakar's management of solid sodium cyanide product. It does however acknowledge that a previous due diligence (2010) highlighted concerns around handling of cyanide shipments whilst at the DP World Terminal within the Port.

It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port of Dakar to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Dakar for future work; rather it is recommended that Hebei continue to review and monitor the Port's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-017-l-rev0 dd port dakar, senegal.docx

REFERENCES

- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- Golder Associates (2010). International Cyanide Management Code Cyanide Transporter Audit. Australian Gold Reagents West Africa Supply Chain – Senegal and Mali, Summary Report. Report number- 097641060-004-R-Rev2
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 19 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- International Tanker Owners Pollution Federation [ITOPF] (2013). Senegal Country Profile. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/senegal/> Accessed on 20 January 2017
- Port Autonome de Dakar (2016). Port Infrastructure. Available at: <http://www.portdakar.sn/fr/nous-decouvrir/presentation/infrastructure> Accessed on 20 January 2017
- Port Autonome de Dakar (2016). Port Safety and Security. Available at: <http://www.portdakar.sn/fr/nous-decouvrir/projets/securite-et-surete> Accessed on 20 January 2017

3 February 2017

Reference No. 1668932-018-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF VALPARAISO

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Valparaiso, Chile during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Valparaiso found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Valparaiso for future work; rather it is recommended that Hebei continue to review and monitor the Port of Valparaiso's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Valparaiso, Chile, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Valparaiso, Chile during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Valparaiso, Chile

The Port of Valparaiso lies on the coast of central Chile about 140 kilometres north-west of the country's capital, Santiago. The port lies on the shores where a coastal mountain range forms a rocky peninsula and a sheltered bay. In 2003, the city's historic quarter was designated a UNESCO World Heritage Site. The city is one of Chile's most important ports and an important cultural centre.

The Port of Valparaiso is managed by Empresa Portuaria Valparaiso (EPV). EPV is an independent company owned by Chile and was created in 1997 to administer, operate, develop and conserve the Port of Valparaiso. EPV owns eight terminals (out of a total of 10) inside the port, the total marine area covers about 50 hectares. Wharve lengths total 1404 metres with alongside depths ranging from 6.2 to 11.4 metres.

In 2007, the Port of Valparaiso handled 9.7 million tons of cargo, including 6.3 million tons of containerised cargo (in over 845 thousand TEUs), and 1.2 million tons of loose cargo. Of that total, 5.3 million tons were exports, and 3.7 million tons were imports. In addition, the port welcomed almost 116 thousand passengers from 48 cruise vessels in the 2007-2008 cruise season. Among the popular exports leaving the Port of Valparaiso are wine, copper, and fresh fruit.

In Chile, Port governance is influenced by a wide number of stakeholders – more than 30 organisations deal with the regulation of the port system. The main entities likely to generate or influence port policies include five ministries, these being: The Ministry of Transport and Telecommunication, The Ministry of Public Works, The Ministry of Defence, The Ministry of Finance and The Ministry of National Assets.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Valparaiso. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Ministry of Transport and Telecommunications develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements. This includes supervising the safety of ships carrying dangerous goods and other goods, processing declarations made by ships carrying dangerous goods, providing accreditation services for personnel involved in the declaration of dangerous goods and inspection of containers, and inspecting containers holding dangerous goods.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, Port Authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

Articles four and five of the Chilean Regulation governing ship reception and dispatch address the requirements for dangerous goods declarations and stowage information that is to be provided to Port Authorities prior to a vessel's arrival. They state that information on dangerous goods, including tonnage, packing conditions and locations of those that are to be offloaded or loaded, or those that are to remain on board is to be provided in separate documentation to the main shipping manifest to Port Authorities/operators prior to the vessel's arrival.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, to comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form. The manifests that are provided to the vessel Master contain emergency response information.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

Port operations personnel provide the vessel's Master with copies of the Emergency Information, Dangerous Goods manifest (including stowage plan) and Packaging Certificates for each hazardous cargo transport units to be handled at the port. All vessels arriving at the Port of Valparaiso are required to declare dangerous cargo before arriving at or departing the Port.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

The Port of Valparaiso operates under a suite of National Regulatory framework in order to comply with the requirements of the IMDG Code and maintain ISPS certification. In compliance with these regulations, the Port of Valparaiso has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated from other container cargo based on dangerous goods classes and stacked separately.

All sodium cyanide remains sealed within containers at all times.

Articles four and five of the Chilean Regulation governing ship reception and dispatch addresses the requirements for dangerous goods receipt and stowage requirements.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

Port Operators are fully aware when sodium cyanide containers are to arrive at the Port. The stevedores receive the vessel's manifest along with other shipping information prior to arrival. This includes unloading and handling information of dangerous goods for the Port, this information is then captured in the terminal operator's advanced information management system allowing for the complete traceability of cargoes within the port.

Chile has National regulations in place for the minimum requirements for radio-communication and ship tracking in Chilean waters and port facilities, the Port of Valparaiso ensures all vessels satisfy and abide by these regulations.

All transshipping operations are carried out in a dedicated dangerous goods area by suitably trained personnel. The transshipping operations are monitored by the port's CCTV system and the containers are tracked to record the positioning of the containers within the dangerous goods storage areas.

Following final clearance, the consignment is placed on road transport vehicles for the inland transportation leg to the relevant end destination. These road transport vehicles are owned by the ICMI accredited transport company providing the road transport service.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

In general, Port and vessel security are managed through the International Ship and Port Facility Security Code (ISPS Code). The ISPS Code is a comprehensive set of measures to enhance security of ships and port facilities. All vessels calling at Chilean Ports must meet ISPS requirements.

The purpose of the ISPS Code is to provide a standardised, consistent framework for evaluating risk, enabling Governments to offset changes in threat with changes in vulnerability for ships and port facilities through determination of appropriate security levels and corresponding security measures. The ISPS Code takes the approach that ensuring the security of ships and port facilities is a risk management activity and that, to determine what security measures are appropriate, an assessment of the risks must be made in each particular case.

The ISPS Code is implemented through chapter XI-2 Special measures to enhance maritime security in the International Convention for the Safety of Life at Sea (SOLAS). Since the ISPS Code is part of SOLAS, compliance is mandatory for all Contracting Governments to SOLAS. Chile is both a member of the IMO and a signatory of SOLAS.

The Port of Valparaiso operates under a suite of National regulations that ensure compliance with the above. In particular, for the handling and storage of dangerous goods, these regulations ensure that shipments of cyanide are authorised for discharge from the vessel, handled by appropriately trained personnel, stored in designated and secured areas, segregated according dangerous goods classes and removed from the port in a timely manner.

Security requirements are also addressed under these National regulations and the Port of Valparaiso satisfies the conditions set out for security personnel and check points, monitoring and surveillance systems.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Chile has been a member State of the IMO Council since 1972, it complies with the requirements of the IMO DG Code. The Chilean Government also has official national standards in place for the transportation, handling and storage of hazardous substances.

The Port of Valparaiso is certified under both the IMO's International Convention on Oil Pollution Preparedness, Response and Cooperation 1990 (OPRC 90) and its extension, the Protocol on Preparedness, Response and Cooperation to Pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol). States which are party to OPRC 90 protocol are required to establish a national system for responding to oil and hazardous/noxious substances (HNS) pollution incidents, including a designated national authority, a national operational contact point and a national contingency plan. This needs to be supported by a minimum level of response equipment, communications plans, regular training and exercises.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Valparaiso's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port of Valparaiso to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Valparaiso for future work; rather it is recommended that Hebei continue to review and monitor the Port of Valparaiso performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-018-l-rev0 dd port valparaiso, chile.docx

REFERENCES

- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- General Direction of the Maritime and Merchant Marine Territory [DIRECTEMAR] (2012). Regulations for the Reception and Dispatch of Ships. Available at: <http://www.directemar.cl/normativa-reglamentos.html> Accessed on 24 January 2017
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at: <http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Member States. Available at: <http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 23 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at: <http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- International Tanker Owners Pollution Federation [ITOPF] (2008). Chile Country Profile. Available at: <http://www.itopf.com/knowledge-resources/countries-regions/countries/chile/> Accessed on 23 January 2017
- Ministry of Transport and Telecommunications (1998). Official Chilean Standard NCh 382.Of98- Hazardous Substances- General Terminology and Classification. Available at: http://www.vertic.org/media/National_Legislation/Chile/CL_Norma_Chilena_382_Sustancias_Peligrosas_Terminologia.pdf Accessed on 23 January 2017
- Ministry of Transport and Telecommunications (2005). Official Chilean Standard NCh 2120/9.Of2004- Hazardous substances - Part 9: Substances and Various dangerous objects. Available at: http://grassau.cl/intranet/webiso/sgi/Procedimientos/OTROS_DOCUMENTOS/OTROS_DOCUMENTOS/DOCUMENTOS/NCh%202120-09%20of.%202004.pdf Accessed on 23 January 2017
- The International Transport Forum (2016). Case Specific Policy Analysis Reports- Ports Policy Review of Chile. Available at: <http://www.itf-oecd.org/sites/default/files/docs/ports-policy-review-chile.pdf> Accessed on 23 January 2017
- World Port Source (2005-2017). Empresa Portuaria Valparaiso- Review and History. Available at: http://www.worldportsource.com/ports/review/CHL_Empresa_Portuaria_Valparaiso_114.php Accessed on 24 January 2017

3 February 2017

Reference No. 1668932-019-L-Rev0

Jason Li
Hebei Chengxin Co Ltd

Email: jason.li@hebeichengxin.com

ICMC DUE DILIGENCE ASSESSMENT FOR THE PORT OF JAKARTA

Dear Jason

EXECUTIVE SUMMARY

Golder Associates Pty Ltd (Golder) conducted a due diligence of the Port of Jakarta, Indonesia during January 2017 on behalf of Hebei Chengxin Co Ltd (Hebei). The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Transport Practice 1.1 (Questions 1-4 and 6)
- Transport Practice 1.5 (Question 1, Items g-i)
- Transport Practice 1.6
- Transport Practice 2.1
- Transport Practice 3.1.

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

Golder's assessment of the Port of Jakarta found no issues of concern in regards to the Port's management of solid sodium cyanide product.

This assessment should not be a final acceptance of the Port of Jakarta for future work; rather it is recommended that Hebei continue to review and monitor the Port of Jakarta's performance annually and implement an adaptive management process.



1.0 INTRODUCTION

This letter provides the results of a due diligence assessment against the Port of Jakarta, Indonesia, in accordance with the *International Cyanide Management Code for the Manufacture, Transport and Use of Cyanide in the Production of Gold* (ICMC or the Code). The letter follows Hebei's acceptance of Golder's proposal (Golder's reference P1657269-001-M-Rev0).

Golder conducted a desktop due diligence assessment of the Port of Jakarta, Indonesia during January 2017. The assessment was conducted by Ed Clerk who meets the International Cyanide Management Institute's (ICMI) requirements for a Transport Technical Specialist.

The following items, as detailed in the ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016), were addressed within the due diligence:

- Introduction
- ICMC Transport Verification Protocol Assessment
 - Transport Practice 1.1 (Questions 1-4 and 6)
 - Transport Practice 1.5 (Question 1, Items g-i)
 - Transport Practice 1.6
 - Transport Practice 2.1
 - Transport Practice 3.1.
- Conclusion
- References

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol* (December 2016) was used to conduct the due diligence assessment. Due to access restrictions, the due diligence was conducted as a desktop process using information obtained from online resources, experience, previous consignor due diligence reviews, and interviews with other consignors.

1.1 Overview of Port of Jakarta, Indonesia

The Port of Jakarta (also known as Tanjung Priok) lies on the north-west coast of the island of Java at the mouth of the Ciliwung River, about 116 nautical miles east south-east of the Port of Panjang on the island of Sumatra. The twelfth largest city in the world, the Port of Jakarta is an important centre for education and industry.

The Port of Jakarta is the busiest port in Indonesia. It handles more than 30% of non-oil-and-gas cargo in the country, and around 50% of the entire flow of goods into and out of Indonesia. The comprehensive intermodal transport and modern technology facilities at the port allow it to connect to all cities in Indonesia.

The Port of Jakarta contains twenty terminals devoted to general, dry bulk, liquid bulk, and containerised cargoes. Specialised terminals handle oil, chemicals, scrap, and passengers. The Port of Jakarta has quays of a total 16.8 thousand square metres in length with 76 berths. The Port of Jakarta also contains storage areas of 661.8 thousand square metres with capacity to store over 401.4 thousand tons of cargo.

In 2007, over 17.8 thousand vessels carried a total of almost 42 million tons of cargo and 3.7 million TEUs of containerised cargoes through the Port of Jakarta. This total included 10.5 million tons of containerised goods in 3.7 million TEUs, 8.2 million tons of liquid bulk cargo, 7.9 million tons of general cargo, 8.2 million tons of dry bulk cargo, and 1.8 million tons of bag cargo.

2.0 ICMC TRANSPORT VERIFICATION PROTOCOL ASSESSMENT

The ICMI's *Auditor Guidance for Use of Cyanide Transportation Verification Protocol*, General Guidance states:

Except as specifically identified in this Guidance document, the Cyanide Transportation Protocol is not to be used to evaluate transport by rail and ship or management of cyanide at rail terminals and port facilities due to security issues, limited access, and the inability of consignors to affect changes in the operating practices of these transport facilities. Rather than conduct Code audits of these facilities, the consignor must conduct and document due diligence investigations of rail carriers, rail terminals, shipping companies and port facilities that are engaged to handle cyanide shipments, as further discussed below under Transport Practice 1.1. The consignor's due diligence investigation must either be conducted or reviewed by an auditor meeting ICMI requirements for a transport expert, and the auditor must conclude that the due diligence investigation has reasonably evaluated these facilities and that the consignor has, to the extent practical, implemented any necessary management measures.

Transport Practice 1.1: Select cyanide transport routes to minimise the potential for accidents and releases

The international sales and exports of sodium cyanide take into consideration the ports and their extended infrastructure available to service the intended target area. Hebei only operates in export markets that are serviced by major international shipping companies with the ability to offer scheduled container services from point of origin to destination and therefore this determines the selection of the port used.

Hebei package all cyanide for transport in accordance with Chinese regulatory standards for the packing of solid cyanide. These standards were prepared to meet the requirements of the United Nations Recommendation on the Transport of Dangerous Goods – Model Regulations, (2005) and thereby meet the requirements of the political jurisdictions through which the loads will pass.

The Port is selected on the basis that it is the closest port to the customer and that it meets all reasonable industry standards for safety, security and emergency response.

Transport Practice 1.5: Follow international standards for the transportation of cyanide by sea and air

It was not possible during this due diligence to physically inspect the Port of Jakarta. The due diligence review was completed based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information.

g) Does the ship carrying the cyanide have a list or manifest identifying the presence and location of the cyanide or a detailed stowage plan including this information, as required under Section 5.4.3.1 of the DG Code?

The Director General of Sea Transportation develops and implements policies, statutes and regulations governing the carriage of dangerous goods and other goods by ships in accordance with relative national and international requirements.

As a member of the IMO and to comply with the International Maritime Solid Bulk Cargoes Code (IMSBC Code), vessels are required to declare dangerous cargo before arriving/leaving at the port.

The IMO's International Convention for the Safety of Life at Sea (SOLAS) 1974 includes provisions adopted to address maritime security matters. Within SOLAS's provisions is the International Ship and Port Facility Security (ISPS) Code, which is a mandatory instrument for all countries Party to the Convention. The ISPS Code aims to ensure that the applicable ocean going ships and port facilities of IMO Member States are implementing the highest possible standards of security.

The ISPS code contains detailed security-related requirements for Governments, port authorities and shipping companies in mandatory Part A, and a series of guidelines on how to meet those requirements in a non-mandatory Part B.

According to the code, all goods are packaged, labelled and placarded as per the International Maritime Dangerous Goods (IMDG) Code requirements for cyanide. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a Dangerous Goods manifest, packing certificates and Multimodal Dangerous Goods Form.

h) Does the ship carrying the cyanide have cyanide emergency response information, as required under Section 5.4.3.2 of the DG Code?

Yes, vessels arriving at the Port of Jakarta are required to declare dangerous cargo before arriving at or departing the Port. To comply with the IMDG Code, dangerous goods delivered to or from the Port are required to be appropriately manifested, packaged, marked, labelled and placarded. Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a dangerous goods manifest, packing certificates and Multimodal Dangerous Goods Form.

Emergency response procedures for ships carrying dangerous goods, including the emergency schedules to be followed in case of incidents involving dangerous substances, materials or articles, or harmful substances (marine pollutants), is regulated under the IMDG code. In accordance with the code, all ships, and the companies responsible for their operation, are required to maintain a Safety Management System (SMS). Within the SMS, procedures for responding to potential shipboard emergencies are required.

i) Does the ship comply with the stowage and separation requirements of Part 7 of the DG Code?

Yes, Indonesian National Regulations and IMO rules for cargo stowage and handling state that all cargo listed on the dangerous cargo manifest must be stowed and handled as prescribed. It also requires IMDG code classes and UN numbers for all dangerous/hazardous cargo.

The Port of Jakarta operates under a suite of National Regulatory framework in order to comply with the requirements of the IMDG Code and maintain ISPS certification. In compliance with these regulations, the Port of Jakarta has dedicated storage areas for specialised products including dangerous goods; cyanide containers are segregated from other container cargo based on dangerous goods classes and stacked separately.

All sodium cyanide remains sealed within containers at all times.

Transport Practice 1.6: Track cyanide shipments to prevent losses during transport

Port Operators are fully aware when sodium cyanide containers are to arrive at the port. The stevedores receive the vessel's manifest along with other shipping information prior to arrival. This includes unloading and handling information of dangerous goods for the port, this information is then captured in the terminal operator's advanced information management system allowing for the complete traceability of cargoes within the port.

Indonesia has National regulations in place for the minimum requirements for radio-communication and ship tracking in Indonesian waters and Port facilities, the Port of Jakarta ensures all vessels satisfy and abide by these regulations.

All transshipping operations are carried out in a dedicated dangerous goods area by suitably trained personnel. The transshipping operations are monitored by the port's CCTV system and the containers are tracked to record the positioning of the containers within the dangerous goods storage areas.

Following final clearance, the consignment is placed on road transport vehicles for the inland transportation leg to the relevant end destination. These road transport vehicles are owned by the ICMI accredited transport company providing the road transport service.

Transport Practice 2.1: Store cyanide in a manner that minimises the potential for accidental releases

In general, Port and vessel security are managed through the International Ship and Port Facility Security Code (ISPS Code). The ISPS Code is a comprehensive set of measures to enhance security of ships and port facilities. All vessels calling at Indonesian Ports must meet ISPS requirements.

The purpose of the ISPS Code is to provide a standardised, consistent framework for evaluating risk, enabling Governments to offset changes in threat with changes in vulnerability for ships and port facilities through determination of appropriate security levels and corresponding security measures. The ISPS Code takes the approach that ensuring the security of ships and port facilities is a risk management activity and that, to determine what security measures are appropriate, an assessment of the risks must be made in each particular case.

The ISPS Code is implemented through chapter XI-2 Special measures to enhance maritime security in the International Convention for the Safety of Life at Sea (SOLAS). Since the ISPS Code is part of SOLAS, compliance is mandatory for all Contracting Governments to SOLAS. Indonesia is both a member of the IMO and a signatory of SOLAS.

The Port of Jakarta operates under a suite of National regulations that ensure compliance with the above. In particular, for the handling and storage of dangerous goods, these regulations ensure that shipments of cyanide are authorised for discharge from the vessel, handled by appropriately trained personnel, stored in designated and secured areas, segregated according to dangerous goods classes and removed from the port in a timely manner.

The Port has restricted access and the Dispatch Centre organises ship movements, tracks pilotage operations, and supervises terminal operations via real-time CCTV monitoring. All sodium cyanide transited through the Port of Jakarta remains sealed within containers at all times.

Security requirements are also addressed under National regulations and the port of Jakarta satisfies the conditions set out for security personnel and check points, monitoring and surveillance systems.

Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases

Indonesia has been a member State of the IMO Council since 1961, it complies with the requirements of the IMO DG Code. The Indonesian Government also has official national standards in place for the transportation, handling and storage of hazardous substances.

Indonesia's National Oil Spill Contingency Plan (NOSCP), 2006 extends to hazardous and noxious substances. In the event of an emergency situation, the National Team for Oil Spill Response would provide the technical expertise, with input from other institutions, government departments, the private sector and NGOs. The National Team through its Command and Control Centre would also carry out the response, using personnel, equipment and materials belonging to its member organisations in the vicinity. The Director General of Sea Transportation (DGST) has equipment which could be utilised for HNS spills and is supported by further equipment from the oil industry.

3.0 CONCLUSION

Based on the evidence reviewed, this due diligence did not find significant issues of concern in regards to the Port of Jakarta's management of solid sodium cyanide product. It was not possible during this due diligence to physically inspect the Port, as such the review was based on information obtained from previous due diligence reviews, ICMI audit reports, discussions with consignors and publicly available online information. The Auditor recommends that Hebei undertakes annual reviews at the Port to monitor the management of dangerous goods.

This assessment should not be a final acceptance of the Port of Jakarta for future work; rather it is recommended that Hebei continue to review and monitor the Port's performance annually and implement an adaptive management process.

4.0 CLOSING

We trust this due diligence letter meets your requirements. If you have any questions, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES PTY LTD



Craig Currie
Environmental Scientist

CC/EWC/hsl



Ed Clerk
ICMC Lead Auditor and Technical Specialist

j:\env\2016 - environment\1668932 - hebei china supply chain\correspondence out\dd complete\final\1668932-019-l-rev0 dd port jakarta, indonesia.docx

REFERENCES

- Golder Associates (2015). International Cyanide Management Code Production Verification Audit. Hebei Chengxin Co Ltd Production Facility Summary Audit Report. Report number- 1537090
- International Maritime Organisation [IMO] (2016). Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS) Guide. Available at:
<http://www.imo.org/en/OurWork/Safety/Cargoes/DangerousGoods/Pages/EmS-Guide.aspx> Accessed on 25 January 2017
- International Maritime Organisation [IMO] (2016). Member States. Available at:
<http://www.imo.org/en/About/Membership/Pages/MemberStates.aspx> Accessed on 24 January 2017
- International Maritime Organisation [IMO] (2016). Pollution Preparedness and Response. Available at:
<http://www.imo.org/en/OurWork/Environment/PollutionResponse/Pages/Default.aspx> Accessed on 20 January 2017
- International Tanker Owners Pollution Federation [ITOPF] (2008). Indonesia Country Profile. Available at:
<http://www.itopf.com/knowledge-resources/countries-regions/countries/indonesia/> Accessed on 24 January 2017
- The Port of Tanjung Priok (2016). Facilities and Equipment. Available at: <http://www.priokport.co.id/index.php> Accessed on 24 January 2017
- The Director General of Sea Transportation (2014). Legislation Index. Available at:
<http://hubla.dephub.go.id/kebijakan/Peraturan.aspx> Accessed on 24 January 2017
- World Port Source (2005-2017). Port of Jakarta- Review and History. Available at:
http://www.worldportsource.com /ports/review/IDN_Port_of_Jakarta_266.php Accessed on 24 January 2017



APPENDIX C

Important Information



IMPORTANT INFORMATION RELATING TO THIS REPORT

The document (“Report”) to which this page is attached and which this page forms a part of, has been issued by Golder Associates Pty Ltd (“Golder”) subject to the important limitations and other qualifications set out below.

This Report constitutes or is part of services (“Services”) provided by Golder to its client (“Client”) under and subject to a contract between Golder and its Client (“Contract”). The contents of this page are not intended to and do not alter Golder’s obligations (including any limits on those obligations) to its Client under the Contract.

This Report is provided for use solely by Golder’s Client and persons acting on the Client’s behalf, such as its professional advisers. Golder is responsible only to its Client for this Report. Golder has no responsibility to any other person who relies or makes decisions based upon this Report or who makes any other use of this Report. Golder accepts no responsibility for any loss or damage suffered by any person other than its Client as a result of any reliance upon any part of this Report, decisions made based upon this Report or any other use of it.

This Report has been prepared in the context of the circumstances and purposes referred to in, or derived from, the Contract and Golder accepts no responsibility for use of the Report, in whole or in part, in any other context or circumstance or for any other purpose.

The scope of Golder’s Services and the period of time they relate to are determined by the Contract and are subject to restrictions and limitations set out in the Contract. If a service or other work is not expressly referred to in this Report, do not assume that it has been provided or performed. If a matter is not addressed in this Report, do not assume that any determination has been made by Golder in regards to it.

At any location relevant to the Services conditions may exist which were not detected by Golder, in particular due to the specific scope of the investigation Golder has been engaged to undertake. Conditions can only be verified at the exact location of any tests undertaken. Variations in conditions may occur between tested locations and there may be conditions which have not been revealed by the investigation and which have not therefore been taken into account in this Report.

Golder accepts no responsibility for and makes no representation as to the accuracy or completeness of the information provided to it by or on behalf of the Client or sourced from any third party. Golder has assumed that such information is correct unless otherwise stated and no responsibility is accepted by Golder for incomplete or inaccurate data supplied by its Client or any other person for whom Golder is not responsible. Golder has not taken account of matters that may have existed when the Report was prepared but which were only later disclosed to Golder.

Having regard to the matters referred to in the previous paragraphs on this page in particular, carrying out the Services has allowed Golder to form no more than an opinion as to the actual conditions at any relevant location. That opinion is necessarily constrained by the extent of the information collected by Golder or otherwise made available to Golder. Further, the passage of time may affect the accuracy, applicability or usefulness of the opinions, assessments or other information in this Report. This Report is based upon the information and other circumstances that existed and were known to Golder when the Services were performed and this Report was prepared. Golder has not considered the effect of any possible future developments including physical changes to any relevant location or changes to any laws or regulations relevant to such location.

Where permitted by the Contract, Golder may have retained subconsultants affiliated with Golder to provide some or all of the Services. However, it is Golder which remains solely responsible for the Services and there is no legal recourse against any of Golder’s affiliated companies or the employees, officers or directors of any of them.

By date, or revision, the Report supersedes any prior report or other document issued by Golder dealing with any matter that is addressed in the Report.

Any uncertainty as to the extent to which this Report can be used or relied upon in any respect should be referred to Golder for clarification.

At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

Africa	+ 27 11 254 4800
Asia	+ 86 21 6258 5522
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

Golder Associates Pty Ltd
Level 3, 1 Havelock Street
West Perth, Western Australia 6005
Australia
T: +61 8 9213 7600

