

### INTERNATIONAL CYANIDE MANAGEMENT CODE

# Australian Gold Reagents Ltd, **Summary Audit Report – Asia Supply Chain Recertification – Amendment**

#### Submitted to:

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

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Important Information





#### 1.0 INTRODUCTION

### 1.1 Operational information

Name of Transportation Facility: Australian Gold Reagents – Asia Supply Chain

Name of Facility Owner: Not Applicable

Name of Facility Operator: Australian Gold Reagents Ltd

Name of Responsible Manager: Ed Beard, Export Technical Manager

Address: Australian Gold Reagents Ltd

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State/Province: Western Australia

Country: Australia

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#### 2.0 CYANIDE TRANSPORTATION

#### 2.1 AGR Australia Limited

AGR is the management company of the unincorporated joint venture between CSBP Ltd (CSBP) and Coogee Chemicals Pty Ltd (Coogee Chemicals). CSBP, a subsidiary of Wesfarmers Ltd is the major participant in the venture and acts as both plant operator and sales agent. Coogee Chemicals is a local manufacturer and distributor of industrial chemicals.

AGR, in its capacity as the sales agent, is the consigner and is responsible for the overall management of the cyanide transportation activities.

### 2.2 West Australia supply chain

AGR's West Australian supply chain is from the Kwinana production facility, using rail and road transport to end user mine sites in Western Australia; as well as road transport to Fremantle Port for export supply. For export product this supply chain is up to and includes the stevedore operation at Fremantle Port.

AGR's West Australian supply chain was re-certified as being in full compliance with the Code on 26 September 2016. The West Australian supply chain is not part of the scope of this audit.

### 2.3 Kwinana production facility

The AGR cyanide production facility is located within CSBP's fertiliser and chemicals complex at Kwinana, some 40 km south of Perth within the state of Western Australia. AGR produces and transports two different forms of cyanide from the Kwinana production facility, namely solution and solids. Cyanide solution is produced as a 30% strength liquid and solid cyanide as a >97% strength white briquette.

The production facility was re-certified as being in full compliance with the Code on 3 August 2017.

AGR Asia Supply Chain

Name of Facility Signature of Lead Auditor

21 December 2017

Date





### 2.4 Ocean Freight supply chain

The scope of AGR's Ocean Freight supply chain includes the marine transportation of solid cyanide (in intermediate bulk containers (IBCs) within shipping containers) from the Fremantle Port, Western Australia, to various interstate and international ports. The carriers used are the Mediterranean Shipping Company (Aust) Pty Ltd (MSC), Maersk Australia Pty Ltd (Maersk) and Kawasaki Kisen Kaisha Ltd (K Line).

The carriers' roles within AGR's cyanide distribution network, or the Ocean Freight Supply Chain itself, are not part of the scope of this audit.

### 2.4.1 Audit scope

The Asian supply chain covers the land-based transportation of AGR's solid cyanide from the ports of Laem Chabang, Thailand and the port of Surabaya, Indonesia to end point users. Within the Asian supply chain, POF and PTTC transport cyanide by road, AGR contract POF, whilst PTTC are contracted by the mine site directly.

#### 2.4.2 **Ports**

The international sales and exports of cyanide, by AGR, take into consideration the ports and their extended infrastructure available to service the intended target area. AGR 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. Each 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.

### 2.4.2.1 Port of Laem Chabang

The port of Laem Chabang is situated on the eastern side of the Gulf of Thailand, south east of Bangkok and north of Pattaya. Laem Chabang is Thailand's main deep sea port and currently handles over 1 million Twenty-foot Equivalent Units (TEUs) annually.

Thailand's strategic geographical location and close proximity to neighbouring countries such as Myanmar, Laos, Cambodia and Malaysia enables Laem Chabang to act as a gateway port for South East Asia for international trade and goods import. Furthermore, Laem Chabang is well connected to its neighbouring hinterland via a network of highways, railways and waterways.

#### 2.4.2.2 Port of Surabaya

The port of Surabaya is one of the busiest ports in Java containing a large shipyard, Indonesia's main naval station and several naval schools. It is located on Java's north-eastern coast at the mouth of the Mas River.

Within the port of Surabaya is the International Wharf (1 000 m long with alongside depth of 10.5 m) and the Domestic Wharf (450 m long with alongside depth of 7.5 m). The International Container Yard covers 29 ha and has capacity for 30 000 TEUs and 250 reefer pugs. The Domestic Container Yard covers nine ha and has capacity for nine thousand TEUs of containerised cargo. The Container Freight Station includes a 10 000 m<sup>2</sup> stacking area and 6 500 m<sup>2</sup> for dangerous goods. The terminal also has two rail tracks of 420 m.

#### 2.4.3 Road transportation

AGR contracts the road transportation of cyanide within the Supply Chain to POF. PTTC are contracted by the mine site directly.

Road transportation from the port of Laem Chabang and port of Surabaya are effected by end user arranged transportation.

AGR Asia Supply Chain
Name of Facility







### 2.4.3.1 Pioneer Ocean Freight

The Pioneer Group of Companies (PCG) was founded in 1972 and today is an international freight forwarder and multi-modal transport operator. Pioneer forms the Thailand transportation arm of PGC and has been established for 33 years. The company employs approximately 200 staff including 35 drivers, and has a dedicated fleet of prime movers and trailers each capable of carrying up to 28 tonnes. Pioneer specialises in:

- Customs clearance
- International freight forwarding and multimodal transport
- Export documentation
- Packing, crating, unpacking and warehousing
- Inland transportation and container trucking
- Air transportation and air courier services.

Pioneer subcontracts the driving of trucks and convoy support vehicles, in part, to Nanon (Thailand) Co Ltd.

POF was recertified as being fully compliant with the Code on 18 December 2017.

#### 2.4.3.2 PT Trans Continent

PTTC was established in 2003 and provides freight forwarding, logistical, shipping agency, custom clearance and warehousing services for mining, oil and gas and project cargo. The operation has Indonesian offices in Jakarta, Balikpapan, Batam, Manado, Medan, Sibolga, Bali, Ternate and Surabaya. In addition, PTTC has overseas agents in Australia, Japan, Singapore, USA, Germany, Thailand, China, South Africa and the UK. Within the scope of this Supply Chain, PTTC is contracted directly via the mine site to transport AGR's product.

PTTC was recertified as being fully compliant with the Code on 2 December 2014.

### 2.5 Transit storage

Within the scope of this audit, transit storage is associated with port operations where containers of cyanide are removed from the vessels, temporarily stored and then placed on road vehicles for the next part of the journey. These transit storage depots are managed by the relevant port authorities and due consideration of relevant protocol requirements has been made through the due diligence process.

There is no interim storage undertaken during road transport to the end user.

AGR Asia Supply Chain
Name of Facility







### 2.6 Auditors findings and attestation

in full compliance with

not in compliance with

No significant cyanide exposures or releases were noted to have occurred during AGR's Asia Supply Chain 2014-2017 audit cycle.

Audit Company: Golder Associates Pty Ltd

**Audit Team Leader:** Jaclyn Ennis-John, Exemplar Global (110895)

**Email:** jennisjohn@golder.com.au

Name and Signatures of Other Auditors:

Name	Position	Signature	Date	
Jaclyn Ennis-John	Lead Auditor and Transport Technical Specialist	Fristen.	21 December 2017	

#### **Dates of audit**

The Recertification Transport Audit of AGR's Asia Supply Chain was undertaken between August and September of 2017, with the Report being finalised in October.

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.

AGR Asia Supply Chain
Name of Facility

Signature of Lead Auditor





#### 3.0 CONSIGNOR SUMMARY

### 3.1 Principle 1 – Transport

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

#### 3.1.1 Transport Practice 1.1

Select cyanide transport re	outes to minimise the potential for acciden	ts and releases.
	$oxed{\boxtimes}$ in full compliance with	
AGR is	in substantial compliance with	Transport Practice 1.1
	not in compliance with	

#### Summarise the basis for this Finding/Deficiencies Identified:

AGR 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.

AGR, through the use of ICMC-certified road carriers, has a process for the selection of transport routes that minimise the potential for accidents and releases or the potential impacts of accidents and releases.

AGR has undertaken an audit of each of the carriers in the Supply Chain to satisfy themselves that the carriers are meeting AGR's requirements for the handling and transportation of cyanide.

AGR has a procedure that provides the process for the selection of new carriers, and once selected, their ongoing performance management.

AGR conducts routine audits to assess a carrier's performance. An audit assesses a carrier's compliance to (amongst others) relevant transport regulations, National Standards and medical, security, communications, driver training and tracking capabilities during transport of AGR's product.

The international sales and exports of cyanide by AGR take into consideration the ports and their extended infrastructure available to service the intended target area. 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. AGR implements a procedure to evaluate the risks of selected cyanide transport routes and takes the measures necessary to manage these risks.

A route review, from the port to the mine site(s), is undertaken as part of the carrier risk assessment. Recommendations are made as to route changes, additional safety controls or security considerations where necessary.

AGR requires subsequent route surveys on a routine basis according to a carrier's overall risk rating.

The measures taken to address risks identified for carriers are addressed within the due diligence process. AGR conducts triennial due diligence assessments on ports used in the Supply Chain to identify potential risks. The due diligence assessments did not identify the requirement for additional safety or security measures.

AGR requires carriers and port facilities 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 and carrier assessment process.

AGR Asia Supply Chain
Name of Facility

Signature of Lead Auditor





AGR is

# AUSTRALIAN GOLD REAGENTS, SUMMARY AUDIT REPORT – ASIA SUPPLY CHAIN RECERTIFICATION – AMENDMENT

Cyanide is transported by ICMC-certified consignors POF and PTTC.

3.	1.2	Trans	port F	racti	ce 1	1.2
•		110110			-	

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

☑ in full compliance with
 ☐ in substantial compliance with
 ☐ not in compliance with

Transport Practice 1.2

#### Summarise the basis for this Finding/Deficiencies Identified:

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

AGR, through the use of ICMC-certified road carriers, has a process in place for the use of only trained, qualified and licensed operators in operating transport vehicles during the transportation of its cyanide.

AGR has undertaken audits of its Supply Chain carriers, and has monitoring systems in place to assess transporter's ongoing compliance with ICMI and AGR cyanide handling and transportation requirements.

AGR 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 AGR 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.

AGR conducts triennial due diligence assessments of port facilities used in the Supply Chain.

Cyanide is transported by ICMC-certified consignors POF and PTTC.

#### 3.1.3 Transport Practice 1.3

Ensure that transport equipment is suitable for the cyanide shipment.	

AGR is in substantial compliance with Transport Practice 1.3

#### Summarise the basis for this Finding/Deficiencies Identified:

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

AGR does not directly operate transport vehicles, though through the use of ICMC certified road carriers has a process in place requiring that only equipment designed and maintained to operate within the loads it will be handling is used.

AGR has monitoring systems in place to evaluate a transporter's compliance with the Code and AGR's requirements. This is achieved through the completion of audits and monitoring assessments.

AGR Asia Supply Chain
Name of Facility
Signature of Lead Auditor
Date





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

AGR conducts triennial due diligence assessments for ports used in its Supply Chain.

The due diligence assessments found that the ports used by AGR are performing dangerous goods handling duties in accordance with AGR's requirements and relevant regulations.

duties in ac	cordance with AGR's requiren	nents and relevant regulation	ons.		
Cyanide is	transported by ICMC-certified	consignors POF and PTTC	<b>)</b> .		
3.1.4	.1.4 Transport Practice 1.4				
Develop ar	nd implement a safety progra	am for transport of cyanic	de.		
	⊠ in full co	mpliance with			
AGR is	☐ in substa	ntial compliance with	Transport Practice 1.4		
	not in cor	mpliance with			
Summarise	e the basis for this Finding/D	Deficiencies Identified:			
	TULL COMPLIANCE with Tran ramme for transport of cyanide		the operation develop and implement a		
accordance	with the packaging and labell pad will pass. Individual IBCs	ing requirements required	facility in Kwinana, Western Australia, in by the political jurisdictions through ners which are sealed prior to departure		
a manner th		ne packaging. AGR has un	s to ensure that cyanide is transported in dertaken audits of the carriers to verify		
Cyanide is	transported by ICMC certified	consignors POF and PTTC	<b>)</b> .		
3.1.5	<b>Transport Practice 1.5</b>				
Follow inte	ernational standards for tran	sportation of cyanide by	sea and air.		
	⊠ in full co	ompliance with			
AGR is	in substa	antial compliance with	Transport Practice 1.5		
	not in co	mpliance with			
Summarise	e the basis for this Finding/D	Deficiencies Identified:			
	ULL COMPLIANCE with Tran or transportation of cyanide by		the operation follow international		
AGR does	not directly transport consignm	nents of cyanide by sea wit	hin the scope of this Supply Chain.		
			n of cyanide from the port of Fremantle, carriers used are MSC, Maersk and		
AGR Asia Sup Name of Fa	<del> </del>	Signature of Lead Auditor	21 December 2017 Date		





Due diligence reviews of the ports of Laem Chabang and Surabaya were conducted by AGR. The due diligence reviews indicated that the ports were in compliance with the Dangerous Goods Code of the International Maritime Organization. The due diligence reviews specifically referenced provisions of the Dangerous Goods Code that are required to be addressed under this question.

Cyanide is transported by ICMC certified consignors POF and PTTC.

No cyanide is transported by air within the scope of this	Supply Chain.		
3.1.6 Transport Practice 1.6			
Track cyanide shipments to prevent losses during tr	ansport.		
⊠ in full compliance with	า		
AGR is in substantial compliance	ce with Transport Practice 1.6		
not in compliance with			
Summarise the basis for this Finding/Deficiencies Id	entified:		
AGR is in FULL COMPLIANCE with Transport Practice to prevent losses during transport.	1.6 requiring the operation track cyanide shipments		
AGR, through the use of ICMC-certified road carriers, had prevent losses during transport. AGR has undertaken a and suitable arrangements for response are in place.			
Inventory controls, marine transportation and chain of cuprevent the loss of cyanide during transportation.	istody documentation processes are implemented to		
AGR requires its carriers to implement inventory controls loss of cyanide during shipment.	s and/or chain of custody documentation to prevent		
Cyanide is transported by ICMC certified consignors PO	F and PTTC.		
3.2 Principle 2 – Interim Storage			
Design, construct and operate cyanide trans-shippir release and exposures.	ng depots and interim storage sites to prevent		
3.2.1 Transport Practice 2.1			
Store cyanide in a manner that minimises the potent	ial for accidental releases.		
⊠ in full compliance with	า		
AGR is in substantial compliance	ce with Transport Practice 2.1		
not in compliance with			
Summarise the basis for this Finding/Deficiencies Id	entified:		
AGR is in FULL COMPLIANCE with Transport Practice 2 operate cyanide trans-shipping depots and interim storage			



21 December 2017

Date

AGR Asia Supply Chain

Name of Facility

Signature of Lead Auditor

( Friscohn.



AGR does not operate trans-shipping or interim storage facilities within this 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 vehicle for the continuation of the delivery.

AGR has no control over when and where this happens, but via the due diligence process has satisfied itself that the transhipment of product occurs in accordance with relevant legislation and complies with standards for the carriage of dangerous goods.

Within the scope of this audit, a trans-shipping depot and interim storage site is associated with the port of Laem Chabang and the port of Surabaya, where containers of cyanide are removed from the vessels, temporarily stored and then placed on road vehicles for the next part of the journey. The transit storage depot is managed by the relevant port authority and due consideration of relevant protocol requirements has been made through the due diligence process.

AGR Asia Supply Chain
Name of Facility







### 3.3 Principle 3 – Emergency Response

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

### strategies and capabilities. 3.3.1 **Transport Practice 3.1** Prepare detailed Emergency Response Plans for potential cyanide releases. in full compliance with AGR is in substantial compliance with **Transport Practice 3.1** not in compliance with Summarise the basis for this Finding/Deficiencies Identified: AGR is in FULL COMPLIANCE with Transport Practice 3.1 requiring the operation prepare detailed Emergency Response Plans for potential cyanide releases. AGR, through the use of ICMC-certified road carriers addresses the requirements to prepare detailed emergency response plans for potential cyanide releases. AGR does not physically transport cyanide within the scope of this Supply Chain. AGR has a procedure that details the characteristics that carriers must demonstrate in order for them to carry AGR's product. AGR's approach is to use ICMC certified carriers. AGR conducts triennial due diligence assessments on port facilities used in the Supply Chain, emergency response capabilities are assessed during this process. The due diligence assessments found that the ports used by AGR 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 port due diligence reviews assess emergency response capabilities, identify emergency response plans and outline additional information specific to the emergency response infrastructure and resources located at each port. Cyanide is transported by ICMC-certified consignors POF and PTTC. **Transport Practice 3.2** Designate appropriate response personnel and commit necessary resources for emergency response. in full compliance with AGR is in substantial compliance with **Transport Practice 3.2** not in compliance with Summarise the basis for this Finding/Deficiencies Identified: AGR is in FULL COMPLIANCE with Transport Practice 3.2 requiring they designate appropriate response personnel and commit necessary resources for emergency response.



21 December 2017

Date

AGR Asia Supply Chain

Name of Facility

Signature of Lead Auditor



AGR, through the use of ICMC-certified road carriers addresses the requirements to prepare detailed emergency response plans for potential cyanide releases.

AGR does not physically transport cyanide within the scope of this Supply Chain. AGR has a procedure that details the characteristics that carriers must demonstrate in order for them to carry AGR's product. AGR's approach is to use ICMC-certified carriers.

Whilst AGR's product is being transported, emergency response is governed by the certified carrier's drivers. AGR conducts due diligence assessments and Cyanide Delivery Audits to verify that the shipments occur in accordance with relevant legislation and standards for the carriage of dangerous goods. The due diligences and audits have found that there were no issues of concern in regards to the management and handling of cyanide product by any of the carriers.

AGR retains a technical and advisory role in an emergency and may provide resources and personnel (depending on where an incident takes place) to assist emergency services in the response to an incident involving cyanide.

AGR conducts triennial due diligence assessments on port facilities used in the Supply Chain, emergency response capabilities are assessed during this process.

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

Individual port due diligences identify the emergency response plans and outline additional information specific to the emergency response infrastructure and resources located at each port.

Cyanide is transported by ICMC-certified consignors POF and PTTC.

#### 3.3.3 Transport Practice 3.3

Develop procedures for in	ternai and external emergency notification	and reporting.
	oxtimes in full compliance with	
AGR is	in substantial compliance with	<b>Transport Practice 3.3</b>
	not in compliance with	

#### Summarise the basis for this Finding/Deficiencies Identified:

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

AGR, through the use of ICMC-certified road carriers, addresses the requirements to develop procedures for internal and external emergency notification and reporting.

AGR does not physically transport cyanide within the scope of this Supply Chain. AGR has a procedure that details the characteristics that carriers must demonstrate in order for them to carry AGR's product. AGR's approach is to use ICMC certified carriers.

Whilst AGR's product is being transported, emergency response is governed by the certified transporter's drivers. AGR conducts due diligence assessments and Cyanide Delivery Audits to verify that the shipments occur in accordance with relevant legislation and standards for the carriage of dangerous goods. The due diligences and audits have found that there were no issues of concern in regards to the management and handling of cyanide product by any of the carriers.

AGR Asia Supply Chain
Name of Facility

Signature of Lead Auditor





AGR retains a technical and advisory role in an emergency and may provide resources and personnel (depending on where an incident takes place) to assist emergency services in the response to an incident involving cyanide.

Cyanide is transporte	ed by ICMC-certified consignors POF and PTTC.			
3.3.4 Transp	3.3.4 Transport Practice 3.4			
Develop procedure treatment.	s for remediation of releases that recognise tl	he additional hazards of cyanide		
	⊠ in full compliance with			
AGR is	in substantial compliance with	<b>Transport Practice 3.4</b>		
	not in compliance with			
Summarise the bas	is for this Finding/Deficiencies Identified:			
	MPLIANCE with Transport Practice 3.4 requiring tests that recognise the additional hazards of cyan			
AGR, through the use of ICMC certified road carriers addresses the requirements to develop procedures for remediation, such as recovery or neutralisation of solutions or solids, decontamination of soils or other contaminated media and management and/or disposal of spill clean-up debris.				
AGR does not physically transport cyanide within the scope of this audit. AGR has a procedure that details the characteristics that carriers must demonstrate in order for them to carry AGR's product. AGR's approach is to use ICMC certified carriers.				
Whilst AGR's product is being transported, emergency response is governed by the certified transporter's drivers. AGR conducts due diligence assessments and Cyanide Delivery Audits to verify that the shipments occur in accordance with relevant legislation and standards for the carriage of dangerous goods. The due diligences and audits have found that there were no issues of concern in regards to the management and handling of cyanide product by any of the carriers.				
	ical and advisory role in an emergency and may per an incident takes place) to assist emergency se			
Cyanide is transporte	ed by ICMC-certified consignors POF and PTTC.			
3.3.5 Transp	port Practice 3.5			
Periodically evaluate	te response procedures and capabilities and	revise them as needed.		
	⊠ in full compliance with			
AGR is	in substantial compliance with	<b>Transport Practice 3.5</b>		
	not in compliance with			

Summarise the basis for this Finding/Deficiencies Identified:

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

AGR Asia Supply Chain
Name of Facility

Signature of Lead Auditor

21 December 2017

Date





AGR, through the use of ICMC certified road carriers addresses the requirements for provisions for periodically reviewing and evaluating the adequacy of emergency response documentation.

AGR does not physically transport cyanide within the scope of this audit. AGR has a procedure that details the characteristics that carriers must demonstrate in order for them to carry AGR's product. AGR's approach is to use ICMC-certified carriers.

AGR conducts triennial due diligence assessments on port facilities used in the Supply Chain, emergency response capabilities are assessed during this process.

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

Individual port due diligences identify the emergency response plans and outline additional information specific to the emergency response infrastructure and resources located at each port.

Cyanide is transported by ICMC-certified consignors POF and PTTC.

AGR Asia Supply Chain
Name of Facility







#### 4.0 DUE DILIGENCE

### 4.1 Port of Laem Chabang

The port of Laem Chabang is utilised as part of AGR's Asia Supply Chain. The due diligence of the port, dated 30 June 2017 and prepared by AGR, was reviewed by Jaclyn Ennis-John of Golder during August 2017.

The due diligence was conducted by AGR's Export Technical Manager, who meets the ICMI requirements for a Transport Expert.

The following items were addressed within the due diligence:

- Summary of Port operations
- Stevedoring
- Dangerous Goods
- Emergency Response
- Security
- Compliance with the International Cyanide Management Institute (ICMI)
  - Transport Practice 1.1
  - Transport Practice 1.5 (1.5.1)
  - Transport Practice 1.6
  - Transport Practice 2.1 (2.1.1, 2.1.2, 2.1.4 and 2.1.6).

Although emergency response was not specifically addressed within a separate section, it was discussed satisfactorily within the Due Diligence under Transport Practices 1.5 and 2.1.

The Due Diligence was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

### 4.1.1 Overview of port

Laem Chabang port is the main container port servicing Thailand; AGR has ability to ship to this port by utilising either MSC or K Line shipping lines. Container shipments are unloaded at the port and readied for the subsequent road transportation to the Phu Bia PBM Gold Mine in Laos. There are no alternative ports with the facilities to handle containers of Cyanide in Thailand.

The port of Laem Chabang currently handles approximately 4.5 million TEUs per annum, which includes approximately 28 450 TEUs of Dangerous Goods.

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

- Management of the port protocols for docking of 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.

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Once the vessel is secure alongside the wharf the shipping activities changeover to port stevedoring activities. The vessels manifest of what containers are required to be unloaded from the vessel are handed over. This manifest identifies hazardous cargoes, their UN number and classification and any segregation requirements.

#### 4.1.2 Stevedoring

Maersk Logistics manage the on shore (wharf) operations at Berth B1. This is the berth currently used by the MSC and K Line to facilitate the unloading of their vessels.

Maersk's stevedoring operations include:

- Handling of the containers whether full or empty on and off the vessels; managing container storage areas for general cargo, port security, control systems for companies and their vehicles collecting and or delivering containers.
- Software programs 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. It is this program that identifies containers with hazardous cargo and allows for all containers with hazardous cargo to be moved by direct discharge to the waiting trailers, which then proceed to the Dangerous Goods Logistics Centre located within the port confines. All TEUs containing hazardous cargo are transported to the Dangerous Goods Logistics Centre by JWD InfoLogistics using their own transportation fleet. Containers are secured onto the trailers by twist locks. All containers of dangerous goods are inspected whilst still on-board the vessel by a representative of JWD InfoLogistics. Escort vehicles are used to accompany all movements of dangerous goods from the discharge berth to the JWD facility.

### 4.1.3 Dangerous goods

The Dangerous Goods Logistics Centre located within the Laem Chabang port area is managed by JWD InfoLogistics. The facilities at the Dangerous Goods Logistics Centre include:

- 100 000 m<sup>2</sup> of outdoor storage space
- Storage area is concreted with a safe floor loading factor of max two tonne/m<sup>2</sup>
- Fire engine situated within the yard
- Wind sock located in the yard
- Reachstacker for unloading and reloading of the containers
- Fully equipped with first aid equipment and safety showers
- CCTV coverage of the whole area
- Security checks at the entry and exit point provided by a professional security company who operate 24 hours a day, seven days a week.

All personnel are trained in Dangerous Goods handling practices with refresher courses every six months. A mock 'DG incident' exercise is held once every year to test the emergency response procedures.

### 4.1.4 Security

The terminal has a surveillance system ensuring the security of goods at all times including video cameras installed at strategic locations. The ports terminals have been declared pedestrian free areas.

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The dangerous goods storage area and wharf warehouse is surrounded by walls and additional security fencing on the wall. The entrance is manned by security personnel and gate checkpoints are installed. Security cameras cover the yard area and entry/exit points. The yard area is also fully lit at night.

#### 4.1.5 Compliance with Transport Practice 1.1

The international sales and exports of cyanide, by AGR, take into consideration the shipping services available to service the intended target market. AGR 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 Fremantle to the destination port for the intended country or continent. These shipping companies provide the correct manifest documentation to the destination port, which gives a list of the cargo types and in the case of cyanide and any other hazardous cargo the number and location reference of the containers.

AGR uses MSC or K Line shipping lines to take its consignments to the port of Laem Chabang in Thailand. The stevedoring activity performed at Berth B1 by Maersk Logistics is to remove the shipping containers from the vessel and place them directly onto trailers for immediate transfer to the Dangerous Goods Logistics Centre. Following final customs clearance, the containers are then placed on road transport vehicles for the inland transport to the gold mine (final destination). These road transport vehicles are from the selected ICMI certified transport company.

#### 4.1.6 Compliance with Transport Practice 1.5 (1.5.1)

The due diligence notes that all goods are packaged, labelled and placarded as per International Maritime Dangerous Goods (IMDG) Code requirements for cyanide. This adherence to the IMDG Code commences at AGR's certified production facility and is carried right through the supply chain.

Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a Dangerous Goods manifest, packing certificates and a Multimodal Dangerous Goods Form, which meets requirement nine of the SOLAS 74, Chapter VII, regulation 5 and MARPOL 73/78, Annex III, regulation 4.

When the vessel arrives at the port the MSC operations staff give copies of the emergency information together with the Dangerous Goods manifest to the ship's Captain. The port of Laem Chabang has an Emergency Response Procedure for the hazardous cargos that pass through the port.

MSC and K Lines operations comply with the ICMC requirements, and Maersk Logistics and JWD InfoLogistics handle and store the cyanide containers in a secure and separate designated area. The containers are managed to ensure they are promptly collected from the port by the road transport company.

#### 4.1.7 Compliance with Transport Practice 1.6

Maersk Logistics receive the vessels manifest, which includes the containers for unloading and handling by them. This information is then captured in the container terminal software program. This program assists with the location where each container from the vessel is to be placed for immediate pickup and delivery to the Dangerous Goods Logistics Centre. Transport from the port Berth B1 to the Dangerous Goods Logistics Centre is controlled by strict documentary checks of container details and their contents. Once the clearing and port formalities are complete the consignment is collected by the road transport company.

#### 4.1.8 Compliance with Transport Practice 2.1 (2.1.1, 2.1.2, 2.1.4 and 2.1.6)

The Laem Chabang Dangerous Goods Warehouse is managed under Thailand Regulations by JWD InfoLogistics to IMDG Code regulations. It handles all types of containers and dangerous goods. The dangerous goods yard is laid out by DG Class and this allows the required segregation of products and classes. Each Class area is designated with signs and each goods type is allotted a bay within its Class area. The cyanide lay down area, Class 6, is segregated by distance from other Classes.

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The dangerous goods storage area and wharf warehouse is surrounded by walls and additional security fencing on the wall. The entrance is manned by security personnel and gate checkpoints are installed. Security cameras cover the yard area and entry/exit points. The yard area is also fully lit at night.

Cyanide product is sealed in shipping containers ready for loading onto transport for onward transportation. Cyanide remains in the original packaging and containers that were packed at the production facility. The containers are in transit through Thailand and are not opened until they arrive on site in Laos. The containers are placed on a concrete surface; the drainage of the concrete surface is to catchment channels that lead to sumps with sump pumps that are controlled by warehouse management.

The cyanide packaging has a sealed plastic liner that stops the contact of product from moisture or humidity, containers are placed in an open air environment and are not stored in a confined space. The warehouse yard area is fully concreted and is laid with catchment channels that collect spillages; the channels lead to segregated sumps. A solid spill will be contained on the concrete pad.

The Port of Thailand Authority has an Emergency Response Procedure for the hazardous cargos that pass through the port. JWD InfoLogistics's Emergency Response Plan includes steps to be taken for chemical spills. The Emergency Response Team (ERT) conducts regular training and exercises with Port Authorities and Fire & Rescue personnel.

### 4.2 Port of Surabaya

The Port of Surabaya is utilised as part of AGR's Asia Supply Chain. The due diligence of the port, dated 12 September 2017 and prepared by AGR, was reviewed by Jaclyn Ennis-John of Golder in September 2017.

The due diligence was conducted by AGR's Export Technical Manager, who meets the ICMI requirements for a Transport Expert.

The following items were addressed within the due diligence:

- Summary of Port operations
- Stevedoring
- Dangerous Goods
- Emergency Response
- Security
- Compliance with the International Cyanide Management Institute (ICMI)
  - Transport Practice 1.1
  - Transport Practice 1.5 (1.5.1)
  - Transport Practice 1.6
  - Transport Practice 2.1 (2.1.1, 2.1.2, 2.1.4 and 2.1.6).

The Due Diligence was compiled through physical visits, interviews and discussions with appropriate personnel and review of applicable documentation.

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### 4.2.1 Overview of port

The Port of Tanjung Perak Surabaya (TPS) in the Java province is the second largest port in Indonesia and the centre of cargo distribution for East Java and a gateway to Eastern Indonesia. The port is accessed from the North through the Madura strait, a 40 km long, 100 m wide and 9.5 m deep channel between East Java and Madura Island.

The location of TPS is strategic as it connects directly to the Surabaya toll way and the railway network into East Java and Eastern Indonesia.

The port has six main terminals, consisting of multi-purpose terminals for conventional cargo handling, a passenger terminal, RoRo and an international container terminal. Tugging, pilotage, bunker, storage and shipyard services are also provided.

The port of TPS is managed by PT Pelabuhan Indonesia (Pelindo) III whilst the TPS container terminal is managed by DP World Surabaya. Other terminal services are provided by PT. Berlian Jasa Terminal Indonesia and PT Pelindo Marine Service provides pilotage, tug, towage and maintenance and logistics services

During 2016 the terminal handled 1.4 million TEUs.

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

- Management of the port protocols for docking of 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.
- Once the vessel is secure alongside the wharf the shipping activities changeover to port stevedoring activities. The vessels manifest of what containers are required to be unloaded from the vessel are handed over. This manifest identifies hazardous cargoes, their UN number and classification and any segregation requirements.

#### 4.2.2 Stevedoring operations

The stevedoring operations are managed by PT Terminal Petikemas using its own labour supply. The TEUs of cyanide are discharged from the vessel using the Quay cranes. These cranes are rated to handle lifts up to 50 tonnes. The weight of AGR's cyanide containers is well within the specified weight limit for these cranes. The weight of AGR's cyanide containers is also suitable for the Reach Stackers or Rubber Tyred Gantry Cranes, which will handle the containers in the dedicated dangerous goods storage area and onto the transport vehicles.

The manifest is handed over from the vessel operator to the port operator and includes the weight and hazards associated with the containers. The containers are then loaded onto trailers owned and maintained by PT Terminal Petikemas. The containers taken to the dedicated dangerous goods storage area, located at the end of each stack, whilst any further clearing or customs requirements are completed. Once all customs clearances are obtained the onward transport of the product is allowed.

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### 4.2.3 Emergency response

The due diligence review found that there is a fire engine and firefighting equipment located within the PT Terminal Petikemas. Medical facilities are also available at the terminal, although serious injuries are treated at the local hospital. PT Terminal Petikemas has its own emergency response team, which holds regular training exercises although these are not cyanide specific. PT Terminal Petikemas is in possession of the relevant SDS for cyanide.

### 4.2.4 Security

The Terminal has a CCTV surveillance system and video cameras are installed at strategic locations throughout the terminal. The terminal is fully lit at night. Containers with dangerous goods are stored in designated areas at the end of each stack within the terminal and segregated according to the international segregation guidelines. DG Containers are stacked no more than two high. The terminal is a pedestrian free area and safety signage is on display throughout.

#### 4.2.5 Compliance with Transport Practice 1.1

The international sales and exports of cyanide, by AGR, take into consideration the shipping services available to service the intended target market. AGR 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 Fremantle to the destination port for the intended country or continent. These shipping companies provide the correct manifest documentation to the destination port, which gives a list of the cargo types and in the case of cyanide and any other hazardous cargo the number and location reference of the containers.

AGR uses MSC or Maersk shipping lines to take its shipments to PT Terminal Petikemas in Surabaya. The stevedoring activity performed at Terminal Petikemas is to remove the shipping containers from the vessel and place them in the dedicated dangerous good storage area.

Following final customs clearance, the containers are then placed on road transport vehicles for the inland transport to the gold mine (final destination). These road transport vehicles are from the selected ICMI certified transport company.

#### 4.2.6 Compliance with Transport Practice 1.5 (1.5.1)

The due diligence notes that all goods are packaged, labelled and placarded as per International Maritime Dangerous Goods (IMDG) Code requirements for cyanide. This adherence to the IMDG Code commences at AGR's certified production facility and is carried right through the supply chain.

Documentation that accompanies the cyanide throughout transportation by sea and delivery at ports includes a Dangerous Goods manifest, packing certificates and a Multimodal Dangerous Goods Form, which meets requirement nine of the SOLAS 74, Chapter VII, regulation 5 and MARPOL 73/78, Annex III, regulation 4.

When the vessel arrives at the port the MSC or Maersk operations staff give copies of the emergency information together with the Dangerous Goods manifest to the ship's Captain. This documentation is then provided to the port authorities upon arrival.

MSC or Maersk operations comply with the ICMC requirements, and PT Terminal Petikemas handle and store the cyanide containers in a secure and separate designated area. The containers are managed to ensure they are promptly collected from the port by the road transport company.

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### 4.2.7 Compliance with Transport Practice 1.6

PT Terminal Petikemas receives the vessels manifest which includes the containers for unloading and handling by them. This information is then captured in the container terminal software program. This program then assists with the location where each container from the vessel is to be placed. Once the clearing and port formalities are complete the consignment is collected by the road transport company.

#### 4.2.8 Compliance with Transport Practice 2.1 (2.1.1, 2.1.2, 2.1.4 and 2.1.6)

General dangerous goods warning and safety signs are on display but these are not cyanide specific. The dedicated dangerous goods storage areas at the end of each stack have full CCTV coverage.

Cyanide product is sealed in shipping containers ready for loading onto transport for onward transportation. Cyanide remains in the original packaging and containers that were packed at the production facility. The containers are placed on a concrete surface within the port area. The cyanide packaging has a sealed plastic liner which stops the contact of product with moisture or humidity. The containers remain sealed until delivered to the mine site.

PT Terminal Petikemas is in possession of the Safety Data Sheets for cyanide. PT Terminal Petikemas undertake six monthly Emergency Response Exercises although these are not cyanide specific. In addition, an annual Emergency Response Exercise is undertaken in conjunction with all other port users.

### 4.3 Auditor review of due diligence

The due diligence assessments were found by the Auditor to sufficiently evaluate the carriers and port operations, within the constraints of access and limited influence, and additional management measures by the consigner were not considered necessary.

#### 5.0 IMPORTANT INFORMATION

Your attention is drawn to the document titled – "Important Information Relating to this Report", which is included in Appendix A of this report. The statements presented in that document are intended to inform a reader of the report about its proper use. There are important limitations as to who can use the report and how it can be used. It is important that a reader of the report understands and has realistic expectations about those matters. The Important Information document does not alter the obligations Golder Associates has under the contract between it and its client.

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### **Report Signature Page**

#### **GOLDER ASSOCIATES PTY LTD**

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# **APPENDIX A**

**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.

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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.

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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.

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